RULES
OF
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER POLLUTION CONTROL

CHAPTER 1200-4-1
GENERAL

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1200-4-1-.01 PURPOSE.

(1) The stated purposes of this act in Section 69-3-102 (b) shall not be construed as meaning that the state is obligated to achieve these purposes in the order that they appear; that is, the state may pursue one without having fully achieved all previous stated purposes.

Authority: *T.C.A. §§69-3-104, 69-3-105, 69-3-107, and 69-3-113.* ***Administrative History:*** *Original rule certified June 7, 1974. Amendment filed November 25, 1977; effective December 26, 1977. Amendment filed May 7, 2004; effective July 21, 2004.*

1200-4-1-.02 WATER QUALITY CONTROL BOARD, DUTIES AND AUTHORITY PROCEDURES.

(1) Duties and Authority

(a) The board shall hold public hearings for the purpose of classifying or reclassifying waters of the state; adopting, readopting, amending or revising standards of quality for state waters; adopting, revising, or repealing effluent standards and limitations; adopting, modifying, repealing and/or promulgating necessary rules and regulations; and to formulate and adopt a State Water Quality Plan pursuant to Section 69-3-105(e) of the act. Any of the above stated actions may be conducted by the board.

(b) In addition to the foregoing, the board, or any member or members thereof, or a hearing officer designated by the chair, shall hold hearings to review orders of the commissioner including denial, terms, or conditions of permits.

(2) Procedures

(a) Prior to a public hearing by the board on any subject as detailed in (1)(a) above, the director shall give notice in at least one newspaper of general circulation within the area of the state in which the water affected is located. Notice will also be mailed to persons who have requested that they be notified of all board hearings. The notice shall state the date, time, place and subject of the hearing and shall be given at least thirty days in advance of the hearing. Notice shall also be provided electronically, where appropriate.

(b) Should any person, other than the department or its representative, desire an audience before the board upon the subject announced, that person should file a written notice with the commissioner at the hearing.

(c) Every person who desires an audience, and who complies with the above provisions shall be granted an opportunity to present his/her views or argument at the board's discretion.

(Rule 1200-4-1-.02, continued)

(3) All matters which the department or its representative, the Division of Water Pollution Control, wishes to present to the board may be submitted in writing to the board on or before the date of said hearing or presented orally to the board at the hearing. Should any person wish to petition the board to reclassify any state water(s) or interstate waters, or to make a change in any rule, regulation, effluent standard or limitation or water quality standards previously adopted by the board, such person shall petition the board in writing. A petition should be typed on 8 1/2 x ll inch sized paper, filed with the commissioner in duplicate, addressed to the board, and should state in a concise manner, the subject of the petition and reasons for a proposed change. The board chair shall set a hearing date as soon as possible, and shall hear oral argument from the petitioner and the department, as well as other interested parties, with regard to petitioner's proposed change. The board, by a majority vote, shall decide whether the petition for a change in regulations and/or water classification is meritorious, and render its decision in writing to the petitioner within thirty days after the hearing. Should said petition be of merit, the board shall set a date for a public hearing on the matter, or may use the date of an already scheduled public hearing; but in any event, the board shall give notice of a public hearing as set out in 2(a) above. For the purpose of this provision, a majority of the board is a quorum as set forth in Section 69-3-104(d) of the act, a majority vote of which shall constitute a final determination of the board.

If the petition concerns the reclassification of an interstate water or waters, the Division of Water Pollution Control shall meet and confer with appropriate federal authorities on possible changes in the classification of such waters prior to any public hearing by the board as provided above and in Section 69-3-105(d) of the act. At a public hearing, federal authorities may be present and heard by the board.

Any person desiring a hearing by the board relative to the actions by the commissioner outlined in subparagraph (1)(b) must file a petition requesting such hearing within thirty days of receipt of the commissioner’s determination. Such petition must be in writing upon 8 1/2 x 11 inch paper, filed with the commissioner in duplicate, addressed to the Tennessee Water Quality Control Board and must state in numbered paragraphs the basis of the appeal as required by the Administrative Procedures Act and regulations promulgated thereunder. If said petition is not filed within the time allowed, it shall not be heard.

Authority: *T.C.A. §§69-3-104, 69-3-105, 69-3-107, and 69-3-113.* ***Administrative History:*** *Original rule certified June 7, 1974. Amendment filed November 25, 1977; effective December 26, 1977. Amendment filed May 7, 2004; effective July 21, 2004.*

1200-4-1-.03 COMMISSIONER'S RESPONSIBILITIES AND AUTHORITY.

(1) Responsibilities

(a) The responsibilities of the commissioner are set out in detail in Section 69-3-107 of the act. In general, the commissioner is to “exercise general supervision and control over the quality of all state waters, administer and enforce all laws relating to pollution of such waters, and administer and enforce this part, and all standards, policies, rules and regulations promulgated thereunder."

(b) Any delegation by the commissioner to the director pursuant to Section 69-3-107(13) of the act must be in writing.

(c) Authority

1. Pursuant to the responsibility placed upon the commissioner, he/she is granted the following remedies for violations of this act.

2. Complaints and Orders

Any complaint issued by the commissioner pursuant to Section 69-3-109 and 69-8-205 of the act shall comply in form with the Tennessee Rules of Civil Procedure, Rule 10; and with Rule 5.02 with regard to Service of Process.

3. Assessment of Damages

Whenever the commissioner assesses the liability of a violator of one or more of the provisions of the act, the damages to the state may include only those set out in Section 69-3-116(a) of the act. The form will be that of a memorandum stating specifically events leading to damage to the state, probable cause, and conclusions drawn. Damages should be itemized and totaled, and the violator ordered to pay. Said assessment must be signed by the commissioner, or by the director for the commissioner.

4. Civil Penalties

Whenever the commissioner assesses civil penalties pursuant to Section 69-3-115(a) of the act he/she must do so in the form of a memorandum stating specifically those facts giving rise to the proposed assessment and in consideration of the factors determinative of its amount. The memorandum must be signed by the commissioner.

5. Criminal Penalties

Prior to the issuance of a warrant for the arrest and prosecution of a violator of this act, the commissioner shall authorize in writing a member or members of the division to apply for a warrant or warrants for a specific charge stated therein, and pursue the same through to termination.

6. Injunctions

The complaint and accompanying plea for injunctive relief shall conform with the Rules of Tennessee Civil Procedure. Neither the board nor the commissioner need take administrative action prior to a plea for an injunction. The board or the commissioner may file a complaint and a plea for an injunction to enforce any order issued.

7. Other Remedies

Section 69-3-118(b) of the act states a savings clause; that is, it provides that the remedies provided for explicitly in the act do not stop the state or any person from pursuing existing remedies at equity, or common law, or statutory law to suppress nuisances, abate pollution, or recover damages resulting from such pollution.

(d) In conjunction with the above stated remedies available to the commissioner, he/she is authorized to receive and act upon a written and signed complaint of any person alleging violations of a provision or provisions of the act by another person, in the manner set forth in Section 69-3-118(a) of the act. The commissioner may or may not act upon the complaint, depending upon his/her determination of it. The commissioner shall determine whether any action shall be taken as a result of the complaint after making his/her own finding with respect to the facts alleged in the complaint, but in all instances he/she shall notify the complainant of his/her determination within ninety (90) days. Should the commissioner wish to act, he/she may choose any of the remedies detailed in 1(c) above. Should either the complainant or defendant wish to appeal the commissioner's action to the board as set forth in Section 69-3-118(a) of the act, said person shall make written petition to the board, filed with the commissioner in duplicate, and shall state in numbered paragraphs the action sought of the commissioner, the commissioner's determination, and supporting reasons why the commissioner's determination

(Rule 1200-4-1-.03, continued)

and/or action should be overruled. The department or any of its personnel shall not be obligated to assist a complainant toward preparing his/her case.

(e) The commissioner is not obligated to pursue an administrative remedy prior to pursuing a judicial remedy. The only exception to this course of action is that the commissioner may not pursue a right of action or remedy in existing common law or statutory law as provided for in Section 69-3-118(b) of the act, where there is an administrative question involved. For the purpose of these regulations, an administrative question is defined as involving a matter which may be actionable at common law, but due to enactment of the Water Quality Control Act, the Commissioner of Environment and Conservation has been granted power and authority to take action thereon. The purpose of this exception is to insure that rights of action and/or remedies in existing common law and statutory law shall not be inconsistent with the provisions of this act.

Authority: *T.C.A. §§69-3-104, 69-3-105, 69-3-107, and 69-3-113.* ***Administrative History:*** *Original rule certified June 7, 1974. Amendment filed November 25, 1977; effective December 26, 1977. Amendment filed May 7, 2004; effective July 21, 2004.*

1200-4-1-.04 INFORMATION - PROCUREMENT, RELEASE AND DISTRIBUTION.

Section 69-3-113 of the act provides authority to the board or commissioner to seek and obtain pertinent information necessary to further the goals of the Water Quality Control Act. The following regulations shall serve to implement that Section.

(1) Waters

The provisions in Section 69-3-113 of the act shall apply to both intrastate and interstate waters, and to all other waters as defined in Section 69-3-103(33) of the act.

(2) Release and Distribution

(a) All information compiled by the Division of Water Pollution Control and recorded in its offices, is public information, except any information that has been declared by the board or the commissioner as representing or revealing a secret process, information, formula or method. The commissioner shall not divulge information claimed to be confidential unless he/she first notifies the supplier of such information that it has been requested and offers the supplier opportunity to defend such classification. Information so declared shall be considered confidential, and shall be placed in a security file. In any event, such information shall not, for any reason, be available to persons other than board members, the commissioner, and staff of the Division of Water Pollution Control. Provided, however, that any confidential information shall be made available to the administrator, and the commissioner shall divulge to the public any of that information the administrator finds is not entitled to protection as a trade secret.

(b) All other recorded information will be available to the public pursuant to the following conditions:

1. During normal office hours of 8:00 a.m. - 4:30 p.m.

2. Under the observation of a member of the staff of the Division of Water Pollution Control

3. Copies of compiled records and information will be made available upon request at a cost based upon the Department of Environment and Conservation's copy policy.

4. No recorded information shall be removed from the offices of the division.

(Rule 1200-4-1-.04, continued)

(c) Recorded transcripts of public hearings can be made available to parties to such hearing. Written transcripts are not available. In a public hearing, any interested person attending will be considered a party to the hearing.

(d) Copies of general information material will be provided at no charge except as provided below. Any electronic versions of this material will also be provided free of charge. Such material includes the Tennessee Water Quality Control Act, regulations adopted and approved by the board, annual reports, leaflets, pamphlets and other similar educational materials available in multiple copies. When the supply of such materials is depleted, multiple copies thereof for wide-spread distribution will not be made by use of office duplicating equipment. A furnishing of multiple copies of such materials shall be delayed until another printing. Instead, individual copies may be provided upon request, at the discretion of the division and at a cost based on the Department of Environment and Conservation's copy policy.

(e) All charges for copies of records and information provided for herein, shall be prepaid and payable to the Tennessee Department of Environment and Conservation.

(f) Public information may be made available electronically.

Authority: *T.C.A. §§69-3-104, 69-3-105, 69-3-107, and 69-3-113.* ***Administrative History:*** *Original rule certified June 7, 1974. Amendment filed November 25, 1977; effective December 26, 1977. Amendment filed May 7, 2004; effective July 21, 2004.*

1200-4-1-.05 THROUGH 1200-4-1-.07 RESERVED.

Authority: *T.C.A. §§69-3-104, 69-3-105, 69-3-107, and 69-3-113.* ***Administrative History:*** *Original rule certified June 7, 1974. Amendment filed November 25, 1977; effective December 26, 1977. Amendment filed May 7, 2004; effective July 21, 2004.*

RULES
OF
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
WATER QUALITY CONTROL BOARD
DIVISION OF WATER POLLUTION CONTROL

CHAPTER 1200-4-2
REGULATIONS FOR PLANS, SUBMITTAL, AND APPROVAL; CONTROL OF CONSTRUCTION; CONTROL OF OPERATION

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1200-4-2-.01 REGISTERED ENGINEER REQUIRED:

Whenever any new works or change in existing works is contemplated whereby sewage, industrial wastes, or other waste will be discharged into or adjacent to any waters of the State, a registered engineer must plan, design, and inspect the construction of any such works; also, a registered engineer must assist in the start-up of and outline correct operating procedures for any new or altered wastewater treatment or water quality control facilities. Any registered engineer herein required shall be governed by the terms of Sections 62-201 et.seq. of the Tennessee Code Annotated as amended which is known as "The Act Creating for the State of Tennessee a State Board of Architectural and Engineering Examiners." Any project wherein the contemplated expenditure for the completed project does not exceed five thousand dollars ($5,000), shall not require the services of a registered engineer. However, regardless of the contemplated expenditure for the completed project, all of the requirements of all other regulations in this section, including the requirement that plans and specifications for such project must be submitted to and approved by a representative of the Commissioner, Tennessee Department of Public Health, shall be followed.

Authority: *T.C.A. §70-328(a).* ***Administrative History:*** *Original Rule certified June 7, 1974. Amendment filed November 25, 1977; effective December 26, 1977.*

1200-4-2-.02 PRELIMINARY DISCUSSION CONCERNING PROJECT:

The engineer employed by the person who is planning to carry out an activity requiring plans approval as outlined in Section 70-330 of the Act should make written request for a meeting with representatives of the Commissioner for an informal discussion of the proposed project with relation to its scope and purpose. Such meeting should be held within thirty (30) days from the receipt of the request. At this meeting, the engineer should make available to the representative of the Commissioner general information regarding the proposed point of discharge, quantity and quality of discharge, land and water use in the vicinity of the proposed discharge and general information regarding the anticipated effect which the proposed activity may have on the surrounding area. The preliminary data will be reviewed and, if sufficient to indicate scope and extent of the project, the representatives of the Commissioner will outline general requirements for its official approval. For projects of sufficiently limited scope, the Commissioner's representatives shall be allowed to accept a single copy of adequate preliminary data in lieu of three complete sets of engineering reports and preliminary plans.

(Rule 1200-4-2-.02, continued)

Authority: *T.C.A. §70-328(a).* ***Administrative History:*** *Original Rule certified June 7, 1974. Amendment filed November 25, 1977; effective December 26, 1977.*

1200-4-2-.03 ENGINEERING REPORT AND PRELIMINARY PLANS:

(1) Unless exempted, an engineering report and preliminary plans must be prepared and presented in accordance with the requirements of the representatives of the Commissioner. The engineering report with preliminary plans must conform to the guidelines for such reports and plans as published by the Tennessee Department of Public Health. The report shall contain all required information for adequate design evaluation of the proposed waste treatment facilities and shall include such results of waste and water analyses, treatability or pilot treatment studies and investigations that may be required by the Commissioner's representatives. Three (3) copies of the engineering report and preliminary plans shall be submitted to a representative of the Commissioner for approval thirty (30) days prior to the date upon which action is desired. These data will be reviewed and, if sufficient to evaluate the effect of the project, the Commissioner's representative, will confirm acceptance of the preliminary information by official site approval letter and instruct the engineer to proceed with development of final plans and specifications. If final plans and specifications have not been submitted for review within one (1) year from the date of approval of the engineering report, the approval shall be subject to re-evaluation and may be declared null and void.

(2) The engineering report and preliminary plans shall be prepared in accordance with generally accepted wastewater engineering practices. The Design Criteria published from time to time are used internally by the Division as a compilation of such practices and are available to the public. Other designs may also be used if adequately supported by calculations and actual testing data.

(3) For small domestic wastewater plants, the following restrictions apply:

(a) Activated sludge plants for design flows of 30,000 to 100,000 gallons per day will only be approved if all other treatment schemes have been demonstrated to be impractical due to non-economic considerations including but not limited to available space.

(b) No activated sludge plants will be approved for design flows less than 30,000 gallons per day.

Authority: *T.C.A. §§69-3-105, 69-3-107, and 68-13-101.* ***Administrative History:*** *Original Rule certified June 7, 1974. Amendment filed November 25, 1977; effective December 26, 1977. Amendment filed June 29, 1988; effective August 13, 1988.*

1200-4-2-.04 SITE APPROVAL:

(1) The proposed site for any treatment works or facilities shall be made available to representatives of the Commissioner for inspections at or prior to the time that the preliminary information and/or engineering report and preliminary plans are submitted for approval. The representative of the Commissioner may specify, in the letter of acceptance and approval of the preliminary report and preliminary plans, any specific requirements, such as effluent limitations or other restrictions which must be met by the proposed facilities. Preparation of final plans and specifications should not be commenced prior to receipt of an official site approval letter or notification to proceed.

Authority: *T.C.A. §70-328(a).* ***Administrative History:*** *Original Rule certified June 7, 1974. Amendment filed November 25, 1977; effective December 26, 1977.*

1200-0-2-.05 FINAL PLANS, CONTRACT DRAWINGS AND SPECIFICATIONS:

(1) Construction work shall not be commenced on any new construction or major change of existing facilities or for any activity outlined in Section 69-3-108 of the Act until complete and final plans and

specifications for such activities have been submitted to and approved in writing by an authorized representative of the Commissioner. No such approval shall be construed as creating the presumption of correct operation nor as warranting by the Commissioner or by his representative that the approved facilities will reach the design goals. The final contract drawings and specifications shall conform to the conditions outlined in the guidelines for preparing such plans as published by the Tennessee Department of Public Health. Final plans should be blue line on 24 inch by 36 inch sheets with all sheets the same size. Final plans and specifications must be submitted to a representative of the Commissioner in quadruplicate for review and comment or approval except for projects of sufficiently limited scope for which the Commissioner's representatives shall be allowed to accept final plans and specifications in duplicate. All submittals of final plans and specifications shall be made at least thirty (30) days before action is desired. Upon approval of a submittal in quadruplicate, each complete set of plans and specifications will be stamped with the official stamp of approval; two sets will be retained by the Tennessee Department of Health and Environment and the other two sets will be returned to the person submitting the plans. Upon approval of a submittal in duplicate each complete set of plans and specifications will be stamped with the official stamp of approval; one set will be retained by the Tennessee Department of Health and Environment and the other set will be returned to the person resubmitting the plans. If construction has not commenced in accordance with approved plans and specifications within one (1) year from the date of approval of said plans and specifications, the approval shall be subject to re-evaluation and may be declared null and void.

(2) The final plans and specifications shall be prepared in accordance with generally accepted wastewater engineering practices. The Design Criteria published from time to time are used internally by the Division as a compilation of such practices and are available to the public. Other designs may also be used if adequately supported by calculations and actual testing data.

Authority: *T.C.A. §§69-3-105, 69-3-107, and 68-13-101 et. seq.* ***Administrative History:*** *Original rule certified June 7, 1974. Amendment filed November 25, 1977; effective December 26, 1977. Amendment filed June 29, 1988; effective August 13, 1988.*

1200-4-2-.06 REVISION OF PLANS:

In the event that it is necessary to require any material change in the submitted plans prior to approval, the Commissioner's representative will outline the required revisions by letter to the engineer and the plans shall be revised as required for approval. Copies of the original submission will be returned to the engineer for revision if deemed necessary. Otherwise, revision may be made by revised plan sheets and addenda to the specifications. In the event that it becomes necessary to make any material change, including equipment substitutions or the provision of "equals," in the approved plans and specifications, subsequent to the date of approval and to the placing of official stamp on such approved plans and specifications, revised plans and specifications in quadruplicate, or duplicate on a project of sufficiently limited scope, together with a statement for the reason for the changes shall be submitted to the Commissioner's representative for review and comment or approval. No part of the work affected by the change or changes shall be started or completed until the Commissioner's representative has given his approval in writing; except that emergency changes which are required as construction proceeds may be made upon verbal approval from the Commissioner's representative, provided that such changes are reflected in as-built plans and specifications which are submitted in the appropriate number of copies at the conclusion of project construction.

Authority: *T.C.A. §70-328(a).* ***Administrative History:*** *Original Rule certified June 7, 1974. Amendment filed November 25, 1977; effective December 26, 1977.*

1200-4-2-.07 PERMIT FOR CONSTRUCTION, INSTALLATION OR MODIFICATION OF ANY ESTABLISHMENT, TREATMENT WORKS OR PART THEREOF, OR NEW OUTLET:

(1) In accordance with T.C.A. 70-330, the submission of letters, reports, plans and specifications shall constitute an application for a permit for (a) the construction, installation or modification of any treatment works or part thereof, or any extension or addition thereto; (b) the construction or installation of any establishment or any extension or modification thereof or addition thereto, the operation of which will or is likely to cause an increase in the discharge of wastes into the waters of the State or would otherwise alter the physical, chemical, biological or bacteriological properties of any waters of the State in any manner not already lawfully authorized; or (c) the construction of any new outlet for the discharge of any wastes into the waters of the State; whichever is applicable. The official letter issued by the Commissioner's representative approving a project for construction in accordance with submitted plans and specifications, together with the plans and specifications bearing the official "Approved for Construction" stamp of the Commissioner shall constitute a valid permit to construct, install or modify in conformance with all conditions shown and specified in the approved plans and specifications. Such permit to construct, install or modify, shall not constitute a valid permit for:

(a) The alteration of the physical, chemical, radiological, biological, or bacteriological properties of any waters of the State;

(b) The operation of any treatment works or part thereof or any extension or addition thereto;

(c) The development of a natural resource or the operation of any establishment or any extension or modification thereof or addition thereto, the operation of which will or is likely to cause an increase in the discharge of wastes into the waters of the State or would otherwise alter the physical, chemical, radiological, biological, or bacteriological properties of any waters of the State in any manner not already authorized;

(d) The increase in volume or strength of any wastes in excess of the permissive discharges specified under any existing permit; or

(e) The use of any new outlet for the discharge of any wastes into the waters of the State.

(2) A separate and distinctly different application for a permit to operate a sewerage system or a sewage treatment plant, and to discharge sewage, industrial waste or other waste from any new or existing outlet, following treatment, must be filed with the Division of Water Quality Control appropriate forms. No wastes, treated or untreated, shall be discharged from any source prior to completed copies of an application for a permit to discharge being filed with the Division of Water Quality Control, and prior to the issuance of a valid permit to discharge.

Authority: *T.C.A. §70-328(a).* ***Administrative History:*** *Original Rule certified June 7, 1974. Amendment filed November 25, 1977; effective December 26, 1977.*

1200-4-2-.08 WORK IN CONFORMITY WITH PLANS AND SPECIFICATIONS:

All work on new construction or changes in existing facilities and all work relating to activities as outlined in Section 70-330 of the Act shall be in conformance with the officially approved plans and specifications bearing the Commissioner's official stamp of approval shall be available at or near the construction site and all construction shall be in conformance with the approved plans and specifications and approved amendments thereto. It shall be the engineer's or responsible person's responsibility to inspect or insure inspection of construction of the facilities and to assist in commencement of operation and to verify that completed facilities are in accordance with approved plans and specifications at the time of the final inspection. The Commissioner's representative may require that reports be filed during construction to indicate that work is being done in conformance with the approved plans and to obtain any additional data deemed necessary. The construction area shall be made available to the Commissioner's representative to make inspections of the work to

(Rule 1200-4-2-.08, continued)

determine that it is being done or has been done in conformity with the officially approved plans. When construction of the proposed facilities has been completed, the Commissioner or his authorized representative will conduct a final inspection of the facilities to determine that all work has been done in conformity with approved plans and specifications. In the event that approved plans and specifications have not been followed during the construction procedure, such revision and alterations of the facilities shall be required as to comply with the details of the approved plans and specifications and approved amendments thereto.

Authority: *T.C.A. §70-328(a).* ***Administrative History:*** *Original Rule certified June 7, 1974. Amendment filed November 25, 1977; effective December 26, 1977.*

1200-4-2-.09 COMMENCEMENT OF OPERATION OF COMPLETED FACILITY:

The start-up of the completed facility shall be attended by the engineer, the agent or agents designated by the responsible person to be in charge of the operation and maintenance of the works, the Commissioner's representative and any others deemed necessary. The engineer shall instruct the person or the person's agent in the proper operation and maintenance of the facilities and shall present them with a complete manual outlining the proper operation and maintenance procedures to be followed. The Commissioner's representative shall instruct the person or the person's agent in the keeping of necessary records of operation and reports of analyses for the facilities and shall provide the person or his agent with a supply of official forms upon which such records shall be kept. The engineer and the Commissioner's representative shall instruct the person or the person's agent in the required points of sampling, methods for and number of analyses, reporting techniques, reporting frequency and any other information deemed pertinent to compliance with the intent of the Act. Following the final inspection when the Commissioner's representative deems the facility to be acceptable, such acceptability will be acknowledged by letter to the responsible person and such letter will transmit to the person the Commissioner's requirements for supervision over operation and maintenance of the completed facilities.

Authority: *T.C.A. §70-328(a).* ***Administrative History:*** *Original Rule certified June 7, 1974. Amendment filed November 25, 1977; effective December 26, 1977.*

1200-4-2-.10 RECORDS AND REPORTS:

(1) Records of operation for sewage, industrial waste and other waste, collection and treatment or disposal works may be required by the Commissioner's representative pursuant to Section 70-335 of the Act, and the data shall be submitted to the Commissioner's representative on forms supplied by the Tennessee Department of Public Health or on forms approved by the Commissioner's representative for such use.

(2) Reports may be required weekly, monthly, or as deemed reasonable and necessary and directed by a representative of the Commissioner. These reports will serve to ascertain the continuous and satisfactory operation of the works in such manner as to insure the protection of water quality. These reports shall be true and accurate and shall not contain false or misleading information. An authorized representative of the Commissioner shall review the submittals and shall, within thirty (30) days of receipt of same, notify the responsible person or the responsible person's agent, in writing, of any deficiencies in operation so noted.

Authority: *T.C.A. §70-328(a).* ***Administrative History:*** *Original Rule certified June 7, 1974. Amendment filed November 25, 1977; effective December 26, 1977.*

1200-4-2-.11 SAMPLES:

Such samples of sewage, industrial waste, other waste and of water from receiving streams or other appropriate waters shall be submitted to the Commissioner's representative when and in such manner as directed. The samples shall serve to check upon any examination being made by the discharger and to check the effectiveness of the collection, treatment and disposal facilities in protecting the water quality.

Authority: *T.C.A. §70-328(a).* ***Administrative History:*** *Original Rule certified June 7, 1974. Amendment filed November 25, 1977; effective December 26, 1977.*

1200-4-2-.12 SUPERVISION OF OPERATION:

The supervision of operation and maintenance of any sewage collection and disposal works shall be such as required by Sections 53-2029 through 53-2041, Tennessee Code Annotated, known as the "Public Water and Wastewater Environmental Health Act of 1971." The Commissioner or his representative shall require such supervision, operation and maintenance of any facility, whether for sewage, industrial waste or other waste, as in his opinion, is required to produce satisfactory results as judged by the current standards of criteria of practice for the maintenance and operation of various types of treatment facilities as may be established by the Tennessee Department of Public Health from time to time. Evidence of competency shall be required in accordance with Sections 53-2029 through 53-2041, Tennessee Code Annotated, and in accordance with requirements of the Commissioner or his authorized representative in order to insure proper operation and maintenance of any collection or disposal works, whether for sewage, industrial waste or other waste.

Authority: *T.C.A. §70-328(a).* ***Administrative History:*** *Original Rule certified June 7, 1974. Amendment filed November 25, 1977; effective December 26, 1977.*

RULES
OF
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
TENNESSEE WATER QUALITY CONTROL BOARD
DIVISION OF WATER POLLUTION CONTROL

CHAPTER 1200-04-03
GENERAL WATER QUALITY CRITERIA

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1200-04-03-.01 TENNESSEE WATER QUALITY CONTROL BOARD.

The Water Quality Control Act, T.C.A., §69-3-101, et seq., makes it the duty of the Water Quality Control Board to study and investigate all problems concerned with the pollution of the Waters of the State and with its prevention, abatement, and control; and to establish such standards of quality for any Waters of the State in relation to their reasonable and necessary use as the Board shall deem to be in the public interest; and establish general policies relating to pollution as the Board shall deem necessary to accomplish the purposes of the Act. The following general considerations and criteria shall be used to determine the permissible conditions of waters with respect to pollution and preventative or corrective measures required to control pollution in various waters or in different sections of the same waters.

Authority: *T.C.A. §§4-5-201 et seq., and 69-3-105.* ***Administrative History:*** *Original rule certified June 7, 1974. Amendment filed December 1, 1975; effective December 30, 1975. Amendment filed November 25, 1977; effective December 26, 1977. Amendment filed March 30, 1983; effective April 29, 1983. Amendment filed July 16, 1991; effective August 30, 1991. Amendment filed May 16, 1995; effective July 30, 1995. Amendment filed July 13, 1999; effective October 11, 1999. Amendment filed October 24, 2003; effective January 7, 2004. Amendment filed July 23, 2007; effective October 6, 2007.*

1200-04-03-.02 GENERAL CONSIDERATIONS.

(1) Tennessee water quality standards shall consist of the General Water Quality Criteria and the Antidegradation Statement found in Rule 1200-04-03, and the Use Classifications for Surface Waters found in Rule 1200-4-4.

(2) Waters have many uses which in the public interest are reasonable and necessary. Such uses include: sources of water supply for domestic and industrial purposes; propagation and maintenance of fish and other aquatic life; recreation in and on the waters including the safe consumption of fish and shellfish; livestock watering and irrigation; navigation; generation of power; propagation and maintenance of wildlife; and the enjoyment of scenic and aesthetic qualities of waters.

(3) The rigid application of uniform water quality is not desirable or reasonable because of the varying uses of such waters. The assimilative capacity of a stream for sewage and waste varies depending upon various factors and including the following: volume of flow, depth of channel, the presence of falls or rapids, rate of flow, temperature, natural characteristics, and the nature of the stream.

(Rule 1200-04-03-.02, continued)

(4) In order to permit the reasonable and necessary uses of the Waters of the State, existing pollution should be corrected as rapidly as practicable, and future pollution prevented through the best available technology economically achievable or that greater level of technology necessary to meet water quality standards; i.e., modeling and stream survey assessments, treatment plants or other control measures.

(5) Since all Waters of the State are classified for more than one use, the most stringent criteria will be applicable. In cases where criteria for protection of more than one use apply at different stream flows (e.g., aquatic life versus recreation), the most protective will also be applicable.

(6) Waters identified as wet weather conveyances according to the definition found in 1200-04-03-.04 (4), shall be protective of humans and wildlife that may come in contact with them and shall not adversely affect the quality of downstream waters. Applicable water quality standards will be maintained downstream of wet weather conveyances.

(7) Where general water quality criteria are applied on a regional, ecoregional, or subecoregional basis, these criteria will be considered to apply to a stream if eighty percent of its watershed or catchment is contained within the unit upon which the criterion is based.

(8) All fish and aquatic life metals criteria are expressed as total recoverable, except cadmium, copper, lead, nickel, silver, and zinc which are expressed as dissolved. Translators will be used to convert the dissolved fraction into a total recoverable permit limit. One of three approaches to metals translation will be used: (1) translator is the same as the conversion factor, (2) translator is based on relationships derived from STORET data, (3) a site-specific translator is developed. Where available, a site-specific translator is preferred. For assessing whether criteria for cadmium, copper, lead, nickel, silver, and zinc are exceeded by ambient water quality conditions, the dissolved criteria will also be translated in order to allow direct comparison to the ambient data, if total recoverable.

(9) Site-specific criteria studies may be conducted on any appropriate fish and aquatic life criteria.

(a) Site-specific criteria studies based on a Water Effects Ratio (WER) calculated from the documented toxicity of a parameter in the stream in which it will be introduced may supersede the adopted criteria at a site. The Division shall approve a site-specific criteria developed by others provided that the WER methodology [Interim Guidance on Determination and Use of Water-effect Ratios for Metals (EPA-823-B-94-001)] is used, both the study plan and results are approved by the department, and the U.S. Environmental Protection Agency has concurred with the final site specific criterion value(s).

(b) Any site specific criterion based on methodologies other than the WER methodology which recalculate specific criterion, such as the Resident Species Method or the Recalculation Method, must be adopted as a revision to Tennessee water quality standards into Chapter 1200-04-03, and following EPA approval, can be used for Clean Water Act purposes.

References on this subject include, but are not limited to: Technical Support Document for Water Quality-based Toxics Control (EPA - 505/2-90-001); Technical Guidance Manual for Performing Waste Load Allocations: Book VIII (EPA/600/6-85/002a/002b/002c); MinteqA2, An Equilibrium Metal Speciation Model (EPA/600/3-87/012); Water Quality Standards Handbook, Second Edition (EPA-823-B-93-002); The Metals Translator: Guidance for Calculating a Total Recoverable Permit Limit From a Dissolved Criteria (EPA-823-B-96-007); Interim Guidance on Determination and Use of Water-effect Ratios for Metals (EPA-823-B-94-001).

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(10) Interpretation and application of narrative criteria shall be based on available scientific literature and EPA guidance and regulations.

Authority: *T.C.A. §§4-5-201 et seq., and 69-3-105.* ***Administrative History:*** *Original rule certified June 7, 1974. Amendment filed December 1, 1975; effective December 30, 1975. Amendment filed November 25, 1977; effective December 26, 1977. Amendment filed March 30, 1983; effective April 29, 1983. Amendment filed July 16, 1991; effective August 30, 1991. Amendment filed May 16, 1995; effective July 30, 1995. Amendment filed July 13, 1999; effective October 11, 1999. Amendment filed October 24, 2003; effective January 7, 2004. Amendment filed July 23, 2007; effective October 6, 2007.*

1200-04-03-.03 CRITERIA FOR WATER USES.

(1) Domestic Water Supply.

(a) Dissolved Oxygen - There shall always be sufficient dissolved oxygen present to prevent odors of decomposition and other offensive conditions.

(b) pH - The pH value shall lie within the range of 6.0 to 9.0 and shall not fluctuate more than 1.0 unit in this range over a period of 24 hours.

(c) Hardness or Mineral Compounds - The hardness of or the mineral compounds contained in the water shall not appreciably impair the usefulness of the water as a source of domestic water supply.

(d) Total Dissolved Solids - The total dissolved solids shall at no time exceed 500 mg/l.

(e) Solids, Floating Materials and Deposits - There shall be no distinctly visible solids, scum, foam, oily slick, or the formation of slimes, bottom deposits or sludge banks of such size or character as may impair the usefulness of the water as a source of domestic water supply.

(f) Turbidity or Color - There shall be no turbidity or color in amounts or characteristics that cannot be reduced to acceptable concentrations by conventional water treatment processes (See definition).

(g) Temperature - The maximum water temperature change shall not exceed 3C° relative to an upstream control point. The temperature of the water shall not exceed 30.5°C and the maximum rate of change shall not exceed 2C° per hour. The temperature of impoundments where stratification occurs will be measured at a depth of 5 feet or mid-depth, whichever is less, and the temperature in flowing streams shall be measured at mid-depth.

(h) Coliform - The concentration of the E. coli group shall not exceed 630 per 100 ml as a geometric mean based on a minimum of 5 samples collected from a given sampling site over a period of not more than 30 consecutive days with individual samples being collected at intervals of not less than 12 hours. For the purpose of determining the geometric mean, individual samples having an E. coli group concentration of less than 1 per 100 ml shall be considered as having a concentration of 1 per 100 ml.

(i) Taste or Odor - The waters shall not contain substances which will result in taste or odor that prevent the production of potable water by conventional water treatment processes.

(j) Toxic Substances - The waters shall not contain toxic substances, whether alone or in combination with other substances, which will produce toxic conditions that materially

(Rule 1200-04-03-.03, continued)

affect the health and safety of man or animals, or impair the safety of conventionally treated water supplies. Available references include, but are not limited to: Quality Criteria for Water (Section 304(a) of Public Law 92-500 as amended); Federal Regulations under Section 307 of Public Law 92-500 as amended; and Federal Regulations under Section 1412 of the Public Health Service Act as amended by the Safe Drinking Water Act, (Public Law 93-523). Limits set for some of the most commonly occurring toxic substances are as follows:

Compound	Criteria (ug/L)	Compound	Criteria (ug/L)
Antimony	6	Diquat	20
Arsenic	10	Endothall	100
Beryllium	4	Glyphosate	700
Barium	2000	Hexachlorobenzene	1
Cadmium	5	Hexachlorocyclopentadiene	50
Chromium, total	100	Oxamyl (Vydate)	200
Lead	5	Picloram	500
Cyanide (as free cyanide)	200	Simazine	4
Mercury	2	2,3,7,8 TCDD (Dioxin)	0.00003
Nickel	100	Benzene	5
Selenium	50	Carbon tetrachloride	5
Thallium	2	1,2-Dichloroethane	5
Alachlor	2	1,1-Dichloroethylene	7
Atrazine	3	1,1,1-Trichloroethane	200
Carbofuran	40	Trichloroethylene	5
Chlordane	2	Vinyl chloride	2
Dibromo chloropropane	0.2	para-Dichlorobenzene	75
2,4 Dichlorophennoxyacetic	70	cis 1,2-Dichloroethylene	70
Ethylene dibromide	0.05	1,2-Dichloropropane	5
Heptachlor	0.4	Ethyl benzene	700
Heptachlor epoxide	0.2	Monochlorobenzene	100
Lindane	0.2	ortho-Dichlorobenzene	600
Methoxychlor	40	Styrene	100
Polychlorinated biphenyls	0.5	Tetrachloroethylene	5
2,4,5 Trichloropheno-xyprioponic acid	50	Toluene	1000
		trans 1,2-Dichloroethylene	100
Pentachlorophenol	1	Xylenes, total	10000
Benzo(a)pyrene	0.2	Dichloromethane	5
Dalapon	200	1,2,4-Trichlorobenzene	70
Di(2-ethylhexyl) adipate	400	1,1,2-Trichloroethane	5
Di(2-ethylhexyl) phthalate	6	Endrin	2.0
Dinoseb	7	Toxaphene	3

(k) Other Pollutants - The waters shall not contain other pollutants in quantities that may be detrimental to public health or impair the usefulness of the water as a source of domestic water supply.

(2) Industrial Water Supply.

(a) Dissolved Oxygen - There shall always be sufficient dissolved oxygen present to prevent odors of decomposition and other offensive conditions.

(b) pH - The pH value shall lie within the range of 6.0 to 9.0 and shall not fluctuate more than 1.0 unit in this range over a period of 24 hours.

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(c) Hardness or Mineral Compounds - The hardness of or the mineral compounds contained in the water shall not appreciably impair the usefulness of the water as a source of industrial water supply.

(d) Total Dissolved Solids - The total dissolved solids shall at no time exceed 500 mg/l.

(e) Solids, Floating Materials and Deposits - There shall be no distinctly visible solids, scum, foam, oily slick, or the formation of slimes, bottom deposits or sludge banks of such size or character as may impair the usefulness of the water as a source of industrial water supply.

(f) Turbidity or Color - There shall be no turbidity or color in amounts or characteristics that cannot be reduced to acceptable concentrations by conventional water treatment processes.

(g) Temperature - The maximum water temperature change shall not exceed 3C° relative to an upstream control point. The temperature of the water shall not exceed 30.5°C and the maximum rate of change shall not exceed 2C° per hour. The temperature of impoundments where stratification occurs will be measured at a depth of 5 feet or mid-depth, whichever is less, and the temperature in flowing streams shall be measured at mid-depth.

(h) Taste or Odor - The waters shall not contain substances which will result in taste or odor that would prevent the use of the water for industrial processing.

(i) Toxic Substances - The waters shall not contain toxic substances whether alone or in combination with other substances, which will adversely affect industrial processing.

(j) Other Pollutants - The waters shall not contain other pollutants in quantities that may adversely affect the water for industrial processing.

(3) Fish and Aquatic Life.

(a) Dissolved Oxygen - The dissolved oxygen shall not be less than 5.0 mg/l with the following exceptions.

1. In streams identified as trout streams, including tailwaters, dissolved oxygen shall not be less than 6.0 mg/L.

2. The dissolved oxygen concentration of trout waters designated as supporting a naturally reproducing population shall not be less than 8.0 mg/L. (Tributaries to trout streams or naturally reproducing trout streams should be considered to be trout streams or naturally reproducing trout streams, unless demonstrated otherwise. Additionally, all streams within the Great Smoky Mountains National Park should be considered naturally reproducing trout streams.)
3. In wadeable streams in subecoregion 73a, dissolved oxygen levels shall not be less than a daily average of 5.0 mg/L with a minimum dissolved oxygen level of 4.0 mg/L.

4. The dissolved oxygen level of streams in ecoregion 66 (Blue Ridge Mountains) not designated as naturally reproducing trout streams shall not be less than 7.0 mg/L.

Substantial and/or frequent variations in dissolved oxygen levels, including diurnal fluctuations, are undesirable if caused by man-induced conditions. Diurnal fluctuations

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shall not be substantially different than the fluctuations noted in reference streams in that region.

In lakes and reservoirs, the dissolved oxygen concentrations shall be measured at mid-depth in waters having a total depth of ten feet or less, and at a depth of five feet in waters having a total depth of greater than ten feet and shall not be less than 5.0 mg/L.

(b) pH - The pH value shall not fluctuate more than 1.0 unit over a period of 24 hours and shall not be outside the following ranges: 6.0 – 9.0 in wadeable streams and 6.5 – 9.0 in larger rivers, lakes, reservoirs, and wetlands.

(c) Solids, Floating Materials and Deposits - There shall be no distinctly visible solids, scum, foam, oily slick, or the formation of slimes, bottom deposits or sludge banks of such size or character that may be detrimental to fish and aquatic life.

(d) Turbidity, Total Suspended Solids, or Color - There shall be no turbidity, total suspended solids, or color in such amounts or of such character that will materially affect fish and aquatic life. In wadeable streams, suspended solid levels over time should not be substantially different than conditions found in reference streams.

(e) Temperature - The maximum water temperature change shall not exceed 3C° relative to an upstream control point. The temperature of the water shall not exceed 30.5°C and the maximum rate of change shall not exceed 2C° per hour. The temperature of recognized trout waters shall not exceed 20°C. There shall be no abnormal temperature changes that may affect aquatic life unless caused by natural conditions. The temperature in flowing streams shall be measured at mid-depth.

The temperature of impoundments where stratification occurs will be measured at mid-depth in the epilimnion (see definition in 1200-04-03-.04) for warm water fisheries and mid-depth in the hypolimnion (see definition in 1200-04-03-.04) for cold water fisheries. In the case of large impoundments (100 acres or larger) subject to stratification and recognized as trout waters, the temperature of the hypolimnion shall not exceed 20°C.

A successful demonstration as determined by the state conducted for thermal discharge limitations under Section 316(a) of the Clean Water Act, (33 U.S.C. §1326), shall constitute compliance with this section.

(f) Taste or Odor - The waters shall not contain substances that will impart unpalatable flavor to fish or result in noticeable offensive odors in the vicinity of the water or otherwise interfere with fish or aquatic life. References include, but are not limited to: Quality Criteria for Water (section 304(a) of Public Law 92-500 as amended).

(g) Toxic Substances - The waters shall not contain substances or a combination of substances including disease - causing agents which, by way of either direct exposure or indirect exposure through food chains, may cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in reproduction), physical deformations, or restrict or impair growth in fish or aquatic life or their offspring. References on this subject include, but are not limited to: Quality Criteria for Water (Section 304(a) of Public Law 92-500 as amended); Federal Regulations under Section 307 of Public Law 92-500 as amended. The following criteria are for the protection of fish and aquatic life:

Compound	Criterion Maximum Concentration ug/l (CMC)	Criterion Continuous Concentration ug/l (CCC)

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Compound	Criterion Maximum Concentration ug/l (CMC)	Criterion Continuous Concentration ug/l (CCC)
Arsenic (III)*	340	150
Cadmium**	2.0	0.25
Chromium, III**	570	74
Chromium, VI*	16	11
Copper**	13	9.0
Lead**	65	2.5
Mercury*	1.4	0.77
Nickel**	470	52
Selenium	20	5
Silver**	3.2	---
Zinc**	120	120
Cyanide***	22	5.2
Chlorine (TRC)	19	11
Pentachlorophenol****	19	15
Aldrin	3.0	---
g-BHC – Lindane	0.95	---
Chlordane	2.4	0.0043
4-4'-DDT	1.1	0.001
Dieldrin	0.24	0.056
a-Endosulfan	0.22	0.056
b-Endosulfan	0.22	0.056
Endrin	0.086	0.036
Heptachlor	0.52	0.0038
Heptachlor epoxide	0.52	0.0038
PCBs, total	---	0.014
Toxaphene	0.73	0.0002
Tributyltin (TBT)	0.46	0.072

* Criteria for these metals are expressed as dissolved.

** Criteria for these metals are expressed as dissolved and are a function of total hardness (mg/L). Hardness-dependent metals criteria may be calculated from the following (values displayed above correspond to a total hardness of 100 mg/l and may have been rounded):

$$CMC\ (dissolved) = \exp\{m_A[\ln(hardness)]+b_A\}\ (CF)$$

$$CCC\ (dissolved) = \exp\{m_C\ [\ln(hardness)]+b_C\}\ (CF)$$

Chemical	M_A	b_A	M_C	B_C	Freshwater Conversion Factors (CF)	
					CMC	CCC
Cadmium	1.0166	-3.924	0.7409	-4.719	1.136672-[(ln hardness)(0.041838)]	1.101672-[(ln hardness)(0.041838)]
Chromium III	0.8190	3.7256	0.8190	0.6848	0.316	0.860
Copper	0.9422	-1.700	0.8545	-1.702	0.960	0.960

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Lead	1.273	-1.460	1.273	-4.705	1.46203-[(ln hardness)(0.145712)]	1.46203-[(ln hardness)(0.145712)]
Nickel	0.8460	2.255	0.8460	0.0584	0.998	0.997
Silver	1.72	-6.59			0.85	
Zinc	0.8473	0.884	0.8473	0.884	0.978	0.986

If criteria are hardness-dependent, the Criterion Maximum Concentration (CMC) and Criterion Continuous Concentration (CCC) shall be based on the actual stream hardness. When an ambient hardness of less than 25 mg/l is used to establish criteria for cadmium or lead, the hardness dependent conversion factor (CF) shall not exceed one. When ambient hardness is greater than 400 mg/l, criteria shall be calculated according to one of the following two options: (1) calculate the criterion using a default Water Effects Ratio (WER) of 1.0 and a hardness of 400 mg/l in the hardness based equation; or (2) calculate the criterion using a WER and the actual ambient hardness of the surface water in the hardness based equation. For information concerning metals translation and site-specific criteria, see 1200-04-03-.02 (9).

*** If Standard Methods 4500-CN I (Weak Acid Dissociable), 4500-CN G (Cyanides Amenable to Chlorination after Distillation), or OIA-1677 are used, this criterion may be applied as free cyanide.

**** Criteria for pentachlorophenol are expressed as a function of pH. Values displayed above correspond to a pH of 7.8 and are calculated as follows:

$$CMC = \exp(1.005(pH) - 4.869) \qquad CCC = \exp(1.005(pH) - 5.134)$$

(h) Other Pollutants - The waters shall not contain other pollutants that will be detrimental to fish or aquatic life.

(i) Iron – The waters shall not contain iron at concentrations that cause toxicity or in such amounts that interfere with habitat due to precipitation or bacteria growth.

(j) Ammonia – The one-hour average concentration of total ammonia nitrogen (in mg N/L) shall not exceed the CMC (acute criterion) calculated using the following equations:

Where salmonid fish are present:

$$CMC = \frac{0.275}{1 + 10^{7.204-pH}} + \frac{39.0}{1 + 10^{pH-7.204}}$$

Or where salmonid fish are not present:

$$CMC = \frac{0.411}{1 + 10^{7.204-pH}} + \frac{58.4}{1 + 10^{pH-7.204}}$$

The thirty-day average concentration of total ammonia nitrogen (in mg N/L) shall not exceed the CCC (chronic criterion) calculated using the following equations:

When fish early life stages are present:

$$CCC = \left[\frac{0.0577}{1 + 10^{7.688-pH}} + \frac{2.487}{1 + 10^{pH-7.688}} \right] MIN\ (2.85,\ 1.45 \cdot 10^{0.028 \cdot (25-T)})$$

When fish early life stages are absent:

$$CCC_{(T,7)} = \left[\frac{0.0577}{1 + 10^{7.688-pH}} + \frac{2.487}{1 + 10^{pH-7.688}} \right] \cdot 1.45 \cdot 10^{0.028 \cdot (25-MAX}$$

In addition, the highest four-day average within the 30-day period shall not exceed 2.5 times the CCC.

(k) Nutrients - The waters shall not contain nutrients in concentrations that stimulate aquatic plant and/or algae growth to the extent that aquatic habitat is substantially reduced and/or the biological integrity fails to meet regional goals. Additionally, the quality of downstream waters shall not be detrimentally affected.

Interpretation of this provision may be made using the document Development of Regionally-based Interpretations of Tennessee's Narrative Nutrient Criterion and/or other scientifically defensible methods.

(l) Coliform - The concentration of the E. coli group shall not exceed 630 per 100 ml as a geometric mean based on a minimum of 5 samples collected from a given sampling site over a period of not more than 30 consecutive days with individual samples being collected at intervals of not less than 12 hours. For the purposes of determining the geometric mean, individual samples having an E. coli group concentration of less than 1 per 100 ml shall be considered as having a concentration of 1 per 100 ml. In addition, the concentration of the E. coli group in any individual sample shall not exceed 2,880 per 100 ml.

(m) Biological Integrity - The waters shall not be modified through the addition of pollutants or through physical alteration to the extent that the diversity and/or productivity of aquatic biota within the receiving waters are substantially decreased or adversely affected, except as allowed under 1200-04-03-.06.

Interpretation of this provision for any stream which (a) has at least 80% of the upstream catchment area contained within a single bioregion and (b) is of the appropriate stream order specified for the bioregion and (c) contains the habitat (riffle or rooted bank) specified for the bioregion, may be made using the most current revision of the Department's Quality System Standard Operating Procedure for Macroinvertebrate Stream Surveys and/or other scientifically defensible methods.

Interpretation of this provision for all other wadeable streams, lakes, and reservoirs may be made using Rapid Bioassessment Protocols for Use in Wadeable Streams and Rivers (EPA/841-B-99-002) or Lake and Reservoir Bioassessment and Biocriteria (EPA 841-B-98-007), and/or other scientifically defensible methods. Interpretation of this provision for wetlands or large rivers may be made using scientifically defensible methods. Effects to biological populations will be measured by comparisons to

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upstream conditions or to appropriately selected reference sites in the same bioregion if upstream conditions are determined to be degraded.

(n) Habitat - The quality of stream habitat shall provide for the development of a diverse aquatic community that meets regionally-based biological integrity goals. Types of habitat loss include, but are not limited to: channel and substrate alterations, rock and gravel removal, stream flow changes, accumulation of silt, precipitation of metals, and removal of riparian vegetation. For wadeable streams, the instream habitat within each subecoregion shall be generally similar to that found at reference streams. However, streams shall not be assessed as impacted by habitat loss if it has been demonstrated that the biological integrity goal has been met.

(o) Flow – Stream or other waterbody flows shall support the fish and aquatic life criteria.

(4) Recreation.

(a) Dissolved Oxygen - There shall always be sufficient dissolved oxygen present to prevent odors of decomposition and other offensive conditions.

(b) pH - The pH value shall lie within the range of 6.0 to 9.0 and shall not fluctuate more than 1.0 unit in this range over a period of 24 hours.

(c) Solids, Floating Materials and Deposits - There shall be no distinctly visible solids, scum, foam, oily slick, or the formation of slimes, bottom deposits or sludge banks of such size or character that may be detrimental to recreation.

(d) Total Suspended Solids, Turbidity or Color - There shall be no total suspended solids, turbidity or color in such amounts or character that will result in any objectionable appearance to the water, considering the nature and location of the water.

(e) Temperature - The maximum water temperature change shall not exceed 3C° relative to an upstream control point. The temperature of the water shall not exceed 30.5°C and the maximum rate of change shall not exceed 2C° per hour. The temperature of impoundments where stratification occurs will be measured at a depth of 5 feet, or mid-depth whichever is less, and the temperature in flowing streams shall be measured at mid-depth.

(f) Coliform - The concentration of the E. coli group shall not exceed 126 colony forming units per 100 ml, as a geometric mean based on a minimum of 5 samples collected from a given sampling site over a period of not more than 30 consecutive days with individual samples being collected at intervals of not less than 12 hours. For the purposes of determining the geometric mean, individual samples having an E. coli concentration of less than 1 per 100 ml shall be considered as having a concentration of 1 per 100 ml.

Additionally, the concentration of the E. coli group in any individual sample taken from a lake, reservoir, State Scenic River, Exceptional Tennessee Water or ONRW (1200-04-03-.06) shall not exceed 487 colony forming units per 100 ml. The concentration of the E. coli group in any individual sample taken from any other waterbody shall not exceed 941 colony forming units per 100 ml.

(g) Taste or Odor - The waters shall not contain substances that will result in objectionable taste or odor.

(h) Nutrients - The waters shall not contain nutrients in concentrations that stimulate aquatic plant and/or algae growth to the extent that the public's recreational uses of the

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waterbody or other downstream waters are detrimentally affected. Unless demonstrated otherwise, the nutrient criteria found in 1200-04-03-.03(3)(k) will be considered adequately protective of this use.

(i) Nutrient Response Criteria for Pickwick Reservoir: those waters impounded by Pickwick Dam on the Tennessee River. The reservoir has a surface area of 43,100 acres at full pool, 9,400 acres of which are within Tennessee. Chlorophyll *a* (corrected, as described in *Standard Methods for the Examination of Water and Wastewater, 20th Edition*, 1998): the mean of the photic-zone (See definition) composite chlorophyll *a* samples collected monthly April through September shall not exceed 18 µg/l, as measured over the deepest point, main river channel, dam forebay.

(j) Toxic Substances - The waters shall not contain toxic substances, whether alone or in combination with other substances, that will render the waters unsafe or unsuitable for water contact activities including the capture and subsequent consumption of fish and shellfish, or will propose toxic conditions that will adversely affect man, animal, aquatic life, or wildlife. Human health criteria have been derived to protect the consumer from consumption of contaminated fish and water. The water and organisms criteria should only be applied to those waters classified for both recreation and domestic water supply. The criteria for recreation are as follows:

Compound	Water & Organisms Criteria * (ug/L)	Organisms Only Criteria (ug/L)
INORGANICS		
Antimony	5.6	640
Arsenic (c)	10.0	10.0
Mercury	0.05	0.051
Nickel	610	4600
Thallium	0.24	0.47
Cyanide	140	140
Dioxin **	0.000001	0.000001
VOLATILES		
Acrolein	190	290
Acrylonitrile (c)	0.51	2.5
Benzene (c)	22	510
Bromoform (c)	43	1400
Carbon tetrachloride (c)	2.3	16
Chlorobenzene	130	1600
Chlorodibromomethane (c)	4.0	130
Chloroform (c)	57	4700
Dichlorobromomethane (c)	5.5	170
1,2-Dichloroethane (c)	3.8	370
1,1-Dichloroethylene	330	7100
1,2-Dichloropropane (c)	5.0	150
1,3-Dichloropropene (c)	3.4	210
Ethylbenzene	530	2100
Methyl bromide	47	1500
Methylene chloride (c)	46	5900

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Compound	Water & Organisms Criteria * (ug/L)	Organisms Only Criteria (ug/L)
1,1,2,2-Tetrachloroethane (c)	1.7	40
Tetrachloroethylene (c)	6.9	33
Toluene	1300	15000
1,2-Trans-Dichloroethylene	140	10000
1,1,2-Trichloroethane (c)	5.9	160
Trichloroethylene (c)	25	300
Vinyl chloride (c)	0.25	24
ACID EXTRACTABLES		
2-Chlorophenol	81	150
2,4-Dichlorophenol	77	290
2,4-Dimethylphenol	380	850
2-Methyl-4,6-dinitrophenol	13	280
2,4-Dinitrophenol	69	5300
Pentachlorophenol (c) (pH)	2.7	30
Phenol	21000	1700000
2,4,6-Trichlorophenol (c)	14	24
BASE NEUTRALS		
Acenaphthene	670	990
Anthracene	8300	40000
Benzidine (c)	0.00086	0.0020
Benzo(a)anthracene (c)	0.038	0.18
Benzo(a)pyrene (c)	0.038	0.18
Benzo(b)fluoranthene (c)	0.038	0.18
Benzo(k)fluoranthene (c)	0.038	0.18
Bis(2-Chlorethyl)ether (c)	0.30	5.3
Bis(2-Chloro-isopropyl)ether	1400	65000
Bis(2-Ethylhexyl)phthalate (c)	12	22
Butylbenzyl Phthalate	1500	1900
2-Chloronaphthalene	1000	1600
Chrysene (c)	0.038	0.18
Dibenz(a,h)Anthracene (c)	0.038	0.18
1,2-Dichlorobenzene	420	1300
1,3-Dichlorobenzene	320	960
1,4-Dichlorobenzene	63	190
3,3-Dichlorobenzidine (c)	0.21	0.28
Diethyl phthalate	17000	44000
Dimethyl phthalate	270000	1100000
Di-n-butyl phthalate	2000	4500
2,4-Dinitrotoluene (c)	1.1	34
1,2-Diphenylhydrazine (c)	0.36	2.0
Fluoranthene	130	140
Fluorene	1100	5300
Hexachlorobenzene (c)	0.0028	0.0029
Hexachlorobutadiene (c)	4.4	180
Hexachlorocyclopentadiene	40	1100
Hexachloroethane (c)	14	33
Ideno(1,2,3-cd)Pyrene (c)	0.038	0.18
Isophorone (c)	350	9600
Nitrobenzene	17	690

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N-Nitrosodimethylamine (c)	0.0069	30
N-Nitrosodi-n-Propylamine (c)	0.05	5.1
N-Nitrosodiphenylamine (c)	33	60
Pyrene	830	4000
1,2,4-Trichlorobenzene	35	70

Compound	Water & Organisms Criteria * (ug/L)	Organisms Only Criteria (ug/L)
PESTICIDES		
Aldrin (c)	0.00049	0.00050
a-BHC (c)	0.026	0.049
b-BHC (c)	0.091	0.17
g-BHC - Lindane	0.98	1.8
Chlordane (c)	0.0080	0.0081
4-4'-DDT (c)	0.0022	0.0022
4,4'-DDE (c)	0.0022	0.0022
4,4'-DDD (c)	0.0031	0.0031
Dieldrin (c)	0.00052	0.00054
a-Endosulfan	62	89
b-Endosulfan	62	89
Endosulfan Sulfate	62	89
Endrin	0.059	0.06
Endrin Aldehyde	0.29	0.30
Heptachlor (c)	0.00079	0.00079
Heptachlor epoxide (c)	0.00039	0.00039
PCB, total (c)	0.00064	0.00064
Toxaphene (c)	0.0028	0.0028

(c) 10^{-5} risk level is used for all carcinogenic pollutants.

* These criteria are for protection of public health due to consumption of water and organisms and should only be applied to these waters designated for both recreation and domestic water supply.

** Total dioxin is the sum of the concentrations of all dioxin and dibenzofuran isomers after multiplication by Toxic Equivalent Factors (TEFs). Following are the TEFs currently recommended by EPA (subject to revision):

DIOXIN ISOMERS	TEF	FURAN ISOMERS	TEF
Mono-, Di-, & TriCDDs	0.0	Mono-, Di-, & TriCDFs	0.0
2,3,7,8 TCDD	1.0	2,3,7,8 TCDF	0.1
Other TCDDs	0.0	Other TCDFs	0.0
2,3,7,8 PeCDD	0.5	1,2,3,7,8 PeCDF	0.05
Other PeCDDs	0.0	2,3,4,7,8 PeCDF	0.5
		Other PeCDFs	0.0
2,3,7,8 HxCDD	0.1	Other PeCDFs	0.0
Other HxCDDs	0.0	2,3,7,8 HxCDF	0.1
		Other HxCDFs	0.0

(Rule 1200-04-03-.03, continued)

2,3,7,8 HpCDD	0.01	2,3,7,8 HpCDF	0.01
Other HpCDDs	0.0	Other HpCDFs	0.0
OCDD	0.001	OCDF	0.001

(k) Other Pollutants - The waters shall not contain other pollutants in quantities which may have a detrimental effect on recreation.

(l) Fish Consumption Advisories - A public fishing advisory will be considered when the calculated risk of additional cancers exceeds 10^{-4} for typical consumers or 10^{-5} for atypical consumers (See definition). A "do not consume" advisory will be issued for the protection of typical consumers and a "precautionary advisory" will be issued for the protection of atypical consumers. The following formula will be used to calculate the risk of additional cancers :

$$R = qE$$

where:

R= Plausible-upper-limit risk of cancer associated with a chemical in a fisheries species for a human subpopulation.

q = Carcinogenic Potency Factor for the chemical (mg kg^{-1} $day^{-1})^{-1}$ estimated as the upper 95 percent confidence limit of the slope of a linear dose-response curve. Scientifically defensible Potency Factors will be used.

E = Exposure dose of the chemical (mg kg^{-1} day^{-1}) from the fish species for the human subpopulation in the area. E is calculated by the following formula:

$$E = \frac{C \; I \; X}{W}$$ where:

C = Concentration of the chemical (mg/kg) in the edible portion of the species in the area. The average levels from multiple fillet samples of the same species will be used. Catfish will be analyzed skin-off with the belly flap included in the sample. Gamefish and carp will be analyzed skin-on with the belly flap included in the sample. Sizes of fish collected for analysis will represent the ranges of sizes likely to be collected and consumed by the public. References on this subject include, but are not limited to: EPA's Guidance for Assessing Chemical Contaminant Data for use in Fish Advisories.

I = Mean daily consumption rate (g/day averaged over 70 year lifetime) of the fish species by the human subpopulation in the area. 6.5 g/day will be used unless better site-specific information is available.

X = Relative absorption coefficient, or the ratio of human absorption efficiency to test animal absorption efficiency of the chemical. Assumed to be 1.0 unless better information is available.

W = Average human mass (kg). 75 kg will be used.

(Rule 1200-04-03-.03, continued)

For substances for which the public heath concern is based on toxicity, a "do not consume" advisory will be considered warranted when average levels of the substance in the edible portion of fish exceed U.S. Food and Drug Administration (FDA) Action Levels or EPA national criteria. Based on the rationale used by FDA or EPA for their levels, the Commissioner may issue precautionary advisories at levels appropriate to protect sensitive populations.

(m) Flow – Stream flows shall support recreational uses.

(5) Irrigation.

(a) Dissolved Oxygen - There shall always be sufficient dissolved oxygen present to prevent odors of decomposition and other offensive conditions.

(b) pH - The pH value shall lie within the range of 6.0 to 9.0 and shall not fluctuate more than 1.0 unit in this range over a period of 24 hours.

(c) Hardness or Mineral Compounds - The hardness of or the mineral compounds contained in the water shall not impair its use for irrigation.

(d) Solids, Floating Materials and Deposits - There shall be no distinctly visible solids, scum, foam, oily slick, or the formation of slimes, bottom deposits or sludge banks of such size or character as may impair the usefulness of the water for irrigation purposes.

(e) Temperature - The temperature of the water shall not interfere with its use for irrigation purposes.

(f) Toxic Substances - The waters shall not contain toxic substances whether alone or in combination with other substances which will produce toxic conditions that adversely affect the quality of the waters for irrigation.

(g) Other Pollutants - The waters shall not contain other pollutants in quantities which may be detrimental to the waters used for irrigation.

(6) Livestock Watering and Wildlife.

(a) Dissolved Oxygen - There shall always be sufficient dissolved oxygen present to prevent odors of decomposition and other offensive conditions.

(b) pH - The pH value shall lie within the range of 6.0 to 9.0 and shall not fluctuate more than 1.0 unit in this range over a period of 24 hours.

(c) Hardness or Mineral Compounds - The hardness of or the mineral compounds contained in the water shall not impair its use for livestock watering and wildlife.

(d) Solids, Floating Materials and Deposits - There shall be no distinctly visible solids, scum, foam, oily slick, or the formation of slimes, bottom deposits or sludge banks of such size or character as to interfere with livestock watering and wildlife.

(e) Temperature - The temperature of the water shall not interfere with its use for livestock watering and wildlife.

(f) Toxic Substances - The waters shall not contain substances whether alone or in combination with other substances, which will produce toxic conditions that adversely affect the quality of the waters for livestock watering and wildlife.

(Rule 1200-04-03-.03, continued)

(g) Other Pollutants - The waters shall not contain other pollutants in quantities which may be detrimental to the water for livestock watering and wildlife.

(7) Navigation.

(a) Solids, Floating Materials and Deposits - There shall be no distinctly visible solids, scum, foam, oily slick, or the formation of slimes, bottom deposits or sludge banks of such size or character as to interfere with navigation.

(b) Other Pollutants - The waters shall not contain other pollutants in quantities which may be detrimental to the waters used for navigation.

Authority: *T.C.A. §§4-5-201 et seq., and 69-3-105.* ***Administrative History:*** *Original rule certified June 7, 1974. Amendment filed December 1, 1975; effective December 30, 1975. Amendment filed November 25, 1977; effective December 26, 1977. Amendment filed March 30, 1983; effective April 29, 1983. Amendment filed July 16, 1991; effective August 30, 1991. Amendment filed May 16, 1995; effective July 30, 1995. Amendment filed July 13, 1999; effective October 11, 1999. Amendment filed October 24, 2003; effective January 7, 2004. Amendment filed July 23, 2007; effective October 6, 2007.*

1200-04-03-.04 DEFINITIONS

In addition to the meanings provided in the Water Quality Control Act (T.C.A. §69-3-103), terms used in these rules shall mean the following:

(1) Atypical consumers - Those persons in the vicinity of a stream or lake who due to physiological factors or previous exposure are more sensitive to specific pollutants than is the population in general. Examples of atypical consumers may include, but are not limited to: children; pregnant or nursing women; subsistence fishermen; frequent purchasers of commercially harvested fish; and agricultural, industrial, or military personnel who may have had previous occupational exposure to the contaminant of concern.

(2) Conventional Water Treatment - Conventional water treatment as referred to in the criteria denotes coagulation, sedimentation, filtration, and chlorination or disinfection.

(3) Degradation - The alteration of the properties of waters by the addition of pollutants or removal of habitat.

(4) De Minimis – Alterations, other than those resulting in the condition of pollution or new domestic wastewater discharges, that represent either a small magnitude or a short duration shall be considered a de minimis impact and will not be considered degradation for purposes of implementing the antidegradation policy. Discharges other than domestic wastewater will be considered de minimis if they are temporary or use less than five percent of the available assimilative capacity for the substance being discharged. Water withdrawals will be considered de minimis if less than five percent of the 7Q10 flow of the stream is removed (the calculations of the low flow shall take into account existing withdrawals). Habitat alterations authorized by an Aquatic Resource Alteration Permit (ARAP) are de minimis if the division finds that the impacts are offset by a combination of impact minimization and/or insystem mitigation. If more than one activity has been authorized in a segment and the total of the impacts uses no more than ten percent of the assimilative capacity, available habitat, or 7Q10 low flow, they are presumed to be de minimis. Where total impacts use more than ten percent of the assimilative capacity, available habitat, or 7Q10 low flow they may be treated as de minimis provided that the division finds on a scientific basis that the additional degradation has an insignificant effect on the resource and that no single activity is allowed to consume more than five percent of the assimilative capacity, available habitat or 7Q10 low flow.

(Rule 1200-04-03-.04, continued)

(5) Ecoregion - A relatively homogeneous area defined by similarity of climate, landform, soil, potential natural vegetation, hydrology, or other ecologically relevant variables.

(6) Epilimnion – The upper layer of water in a thermally stratified lake or reservoir. This layer consists of the warmest water and has a fairly uniform (constant) temperature.

(7) Ground water – Water beneath the surface of the ground within the zone of saturation, whether or not flowing through known and definite channels.

(8) Ground water table – The upper surface of the zone of saturation by ground water.

(9) Hypolimnion - The lowest layer in a thermally stratified lake or reservoir. This layer consists of colder, more dense water, has a constant temperature and no mixing occurs. The hypolimnion of a eutrophic lake is usually low or lacking in oxygen.

(10) Interflow – The runoff infiltrating into the surface soil and moving toward streams as shallow, perched water above the main ground-water level.

(11) Mixing Zone - That section of a flowing stream or impounded waters in the immediate vicinity of an outfall where an effluent becomes dispersed and mixed.

(12) Multiple populations – Two or more individuals from each of two or more distinct taxa, in the context of obligate lotic aquatic organisms.

(13) Normal weather conditions – Those within one standard deviation of the cumulative monthly precipitation means for at least the three months prior to the hydrologic determination investigation, based on a 30-year average computed at the end of each decade. Precipitation date shall come from National Oceanographic and Atmospheric Agency's National Climatic Data Center, National Resources Conservation Service's National Climatic Data Center, Natural Resources Conservation Service's National Water and Climate Center, or other well-established weather station.

(14) Obligate lotic aquatic organisms - Organisms that require flowing water for all or almost all of the aquatic phase of their life cycles.

(15) Perched water – Water that accumulates above an aquitard that limits downward migration where there is an unsaturated interval below it, between the aquitard and the zone of saturation.

(16) Photic Zone - the region of water through which light penetrates and where photosynthetic organisms live.

(17) Reference condition - A parameter-specific set of data from regional reference sites that establish the statistical range of values for that particular substance at least-impacted streams.

(18) Reference Site - Least impacted waters within an ecoregion that have been monitored to establish a baseline to which alterations of other waters can be compared.

(19) Stratification – The tendency in lakes and reservoirs for distinct layers of water to form as a result of vertical change in temperature and, therefore, in the density of water. During stratification, dissolved oxygen, nutrients, and other parameters of water chemistry do not mix well between layers, establishing chemical as well as thermal gradients.

(20) Stream - A surface water that is not a wet weather conveyance.

(Rule 1200-04-03-.04, continued)

(21) Subecoregion - A smaller, more homogenous area that has been delineated within an ecoregion.

(22) Thermocline – The middle layer in a thermally stratified lake or reservoir. In this layer there is a rapid decrease in temperature with depth. Also called the metalimnion.

(23) Wadeable streams - Streams that can be sampled using a hand held, one meter square or smaller kick net without water and materials escaping over the top of the net.

(24) Watercourse - A man-made or natural hydrologic feature with a defined linear channel which discretely conveys flowing water, as opposed to sheet-flow.

(25) Wet weather conveyance - Man-made or natural watercourses, including natural watercourses that have been modified by channelization:

(a) That flow only in direct response to precipitation runoff in their immediate locality;

(b) Whose channels are at all times above the ground water table;

(c) That are not suitable for drinking water supplies; and

(d) In which hydrological and biological analyses indicate that, under normal weather conditions, due to naturally occurring ephemeral or low flow there is not sufficient water to support fish, or multiple populations of obligate lotic aquatic organisms whose life cycle includes an aquatic phase of at least two months.

(26) Wet weather conveyance determination - The decision based on site specific information of whether a particular watercourse is a stream or a wet weather conveyance. It is synonymous with “stream determination” and “hydrologic determination.”

(27) Zone of saturation – A subsurface zone below the ground water table in which all of the interconnected voids and pore spaces are filled with water.

Authority: *T.C.A. §§4-5-201 et seq., 69-3-101 et seq., and 69-3-105.* ***Administrative History:*** *Original rule certified June 7, 1974. Amendment filed December 1, 1975; effective December 30, 1975. Amendment filed November 25, 1977; effective December 26, 1977. Amendment filed March 30, 1983; effective April 29, 1983. Amendment filed July 16, 1991; effective August 30, 1991. Amendment filed May 16, 1995; effective July 30, 1995. Amendment filed July 13, 1999; effective October 11, 1999. Amendment filed October 24, 2003; effective January 7, 2004. Amendment filed July 23, 2007; effective October 6, 2007. Repeal and new rule filed March 2, 2011; effective May 31, 2011.*

1200-04-03-.05 INTERPRETATION OF CRITERIA.

(1) Interpretation of the above criteria shall conform to any rules and regulations or policies adopted by the Water Quality Control Board.

(2) The effect of treated sewage or waste discharge on the receiving waters shall be considered beyond the mixing zone except as provided in this paragraph. The extent to which this is practicable depends upon local conditions and the proximity and nature of other uses of the waters. Such mixing zones (See definition) shall be restricted in area and length and shall not (i) prevent the free passage of fish or cause aquatic life mortality in the receiving waters; (ii) contain materials in concentrations that exceed acute criteria beyond the zone immediately surrounding the outfall; (iii) result in offensive conditions; (iv) produce undesirable aquatic life or result in dominance of a nuisance species; (v) endanger the public health or welfare; or (vi) adversely affect the reasonable and necessary uses of the area; (vii)

(Rule 1200-04-03-.05, continued)

create a condition of chronic toxicity beyond the edge of the mixing zone; (viii) adversely affect nursery and spawning areas; or (ix) adversely affect species with special state or federal status.

(3) The technical and economical feasibility of waste treatment, recovery, or adjustment of the method of discharge to provide correction shall be considered in determining the time to be allowed for the development of practicable methods and for the specified correction, to the extent allowable under Rule 1200-04-03-.06 (5).

(4) Water quality criteria for fish and aquatic life and livestock watering and wildlife set forth shall generally be applied on the basis of the following stream flows: unregulated streams - stream flows equal to or exceeding the 7-day minimum, 10-year recurrence interval; regulated streams - all flows in excess of the minimum critical flow occurring once in ten years as determined by the division. However, criteria that are wholly or partially based on direct measurements of ambient aquatic community health, such as the nutrient, biological integrity, and habitat criteria for the fish and aquatic life use, shall support the designated use. These criteria should be considered independent of a specified minimum flow duration and recurrence. All other criteria shall be applied on the basis of stream flows equal to or exceeding the 30 day minimum 5 year recurrence interval.

(5) In general, deviations from normal water conditions are undesirable, but the magnitude and duration of the deviations shall be considered in interpreting the above criteria. When interpreting pathogen data, samples collected during or immediately after significant rain events may be treated as outliers unless caused by point source dischargers. Such outlier data may be given less weight in assessment decisions than non-rain event sampling results.

(6) The criteria and standards provide that all discharges of sewage, industrial waste, and other waste shall receive the degree of treatment or effluent reduction necessary to comply with water quality standards, or state or federal laws and regulations pursuant thereto, and where appropriate will comply with the "Standards of Performance" as required by the Tennessee Water Quality Control Act, (T.C.A., §§69-3-101, et seq.).

(7) Where naturally formed conditions (e.g., geologic formations) or background water quality conditions are substantial impediments to attainment of the water quality standards, these natural or background conditions shall be taken into consideration in establishing any effluent limitations or restrictions on discharges to such waters.

(8) There are cases in which the in-stream criteria as established by this rule are less than current chemical technological capabilities for analytical detection. In instances where permit limits established through implementation of these criteria are below analytical capabilities, compliance with those limits will be determined using the following detection limits, unless in specific cases other detection limits are demonstrated to be the best achievable because of the particular nature of the wastewater being analyzed:

REQUIRED METHOD DETECTION LEVELS [RDL] (ug/l)
(Approved EPA Methods Must Be Used)

INORGANICS	RDL	BASE NEUTRALS	RDL
Antimony	3.0	Acenaphthylene (c)	2.3
Arsenic, total (c)	1.0	Anthracene	0.7
Arsenic (III) (c)	1.0	Benzo(a)anthracene (c)	0.3
Beryllium (c)	1.0	Benzo(a)pyrene (c)	0.3
Cadmium	1.0	3,4-Benzofluoranthene (c)	0.3
Chromium, total	1.0	Benzo(k)fluoranthene (c)	0.3
Chromium (III)	1.0	Bis(2-Chloroethyl)ether (c)	1.0
Chromium (VI)	10.0	Bis(2-Ethylhexyl)phthalate(c)	2.5

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Copper	1.0	Chrysene	2.5
Lead	1.0	1,2-Dichlorobenzene	2.0
Mercury	0.2	1,3-Dichlorobenzene	2.0
Nickel	10.0	1,4-Dichlorobenzene - para-Dichlorobenzene	4.4
Selenium	2.0	Diethyl phthalate	1.9
Silver	1.0	Dimethyl phthalate	1.6
Zinc	1.0	Di-n-Butyl phthalate	2.5
Cyanide	5.0	2,4-Dinitrotoluene (c)	1.0
Dioxin	0.00001	Fluoranthene	2.2
		Fluorene	0.3
VOLATILES		Hexachlorobenzene (c)	1.9
Acrolein	1.0	Hexachlorobutadiene (c)	5.0
Acrylonitrile (c)	1.0	Hexachloroethane (c)	0.5
Benzene (c)	1.0	Nitrobenzene	10.0
Bromoform - Tribromomethane (c)	1.0	Phenanthrene	0.7
Carbon tetrachloride (c)	1.0	Pyrene	0.3
Chloroform - Trichloromethane (c)	0.5	PESTICIDES	
Dichlorobromomethane (c)	1.0	Aldrin (c)	0.5
1,2-Dichloroethane (c)	1.0	g-BHC - Lindane (c)	0.5
1,1-Dichloroethylene (c)	1.0	Chlordane (c)	0.1
1,3-Dichloropropylene	1.0	4-4'-DDT (c)	0.1
Ethylbenzene	1.0	4,4'-DDE (c)	0.1
Methyl chloride - Chloromethane (c)	1.0	4,4'-DDD (c)	0.1
Methylene chloride - Dichloromethane (c)	1.0	Dieldrin (c)	0.05
1,1,2,2-Tetrachloroethane (c)	0.5	a-Endosulfan	0.1
Tetrachloroethylene (c)	0.5	b-Endosulfan	0.05
Toluene	1.0	Endrin	0.1
1,1,1-Trichloroethane	1.0	Heptachlor (c)	0.05
1,1,2-Trichloroethane (c)	0.2	Heptachlor epoxide (c)	0.08
Trichloroethylene (c)	1.0	PCB-1242 (c)	0.5
Vinyl chloride (c)	2.0	PCB-1254 (c)	0.5
		PCB-1221 (c)	0.5
ACID EXTRACTABLES		PCB-1232 (c)	0.5
2-Methyl-4,6-dinitrophenol-4,6-Dinitro-o-cresol	24.0	PCB-1248 (c)	0.5
2,4-Dinitrophenol	42.0	PCB-1260 (c)	0.5
Pentachlorophenol	5.0	PCB-1016 (c)	0.5
2,4,6-Trichlorophenol (c)	2.7	PCB, total (c)	0.5
		Toxaphene (c)	0.5
		(c) - carcinogen	

(9) Standard operating procedures for making stream and wet weather conveyance determinations (hydrologic determinations)

(a) General

1. Because a primary purpose of the Water Quality Control Act is to protect the waters of the state for the public, and since streams receive a higher level of protection than wet weather conveyances, anyone desiring to alter a watercourse who wishes to avoid unnecessary expense and delay, may request the department to process a permit application or issue an authorization under a general permit with the presumption that the watercourse is a stream. In that instance, a full hydrologic determination would not be performed under these rules. However, nothing shall preclude an applicant from subsequently seeking a wet weather conveyance determination.

(Rule 1200-04-03-.05, continued)

2. The procedures detailed in this rule are intended to be used in situations where there is some question whether a watercourse is a stream or wet weather conveyance. In situations where it is obvious that a watercourse is a stream, such as named rivers or streams with watersheds larger than a square mile, or spring-fed streams with consistent flow greater than one cubic foot per second, it is not necessary to conduct a detailed hydrologic determination.

3. It is the purpose of this rule to set out the framework for making stream and wet weather conveyance determinations taking into consideration all relevant and necessary information on the biology, geology, geomorphology, precipitation, hydrology, and other scientifically based principles. Staff of the department and certified hydrologic professionals not employed by the department who are making a submission pursuant to §69-3-108(r) shall follow these rules and the Guidance for Making Hydrologic Determinations (Guidance) which contains the instructions and examples for proper application of these rules to situations in the field that has been developed pursuant to §69-3-107(25) in making these determinations.

4. The format for documenting these determinations is provided in the Hydrologic Determination Field Data Sheet (Data Sheet) in the Guidance. All available field characteristics necessary to make an accurate determination shall be evaluated, and all evidence utilized in making a determination shall be documented using the Data Sheet or as an addendum. Applicants may choose to submit additional hydrological or geotechnical data not included in the standard procedure in support of a hydrologic determination. Any additional relevant information submitted to the department shall be considered by the division in its determination.

5. Any significant revision to the Data Sheet or Guidance shall be subject to a thirty-day public comment period prior to adoption. The department shall advertise its intent to modify the Data Sheet or Guidance by posting notice of proposed changes on the department's internet web site and by sending to the permit mailing list. Significant modifications include the addition or deletion or substantive modification of either the primary or secondary indicators or a change in the scoring system. The department shall consider the need for modifications to the Data Sheet and Guidance periodically and whenever a significant comment is submitted in regard to them.

6. To be classified as a wet weather conveyance, a watercourse must meet all four elements of the definition in §69-3-103. Therefore, if it is determined that any one of the four elements does not apply to a watercourse, the watercourse is a stream.

7. Because natural variation and human activities can alter hydrologic conditions over time, hydrologic determination will only be considered valid for a maximum of five years or the term of a permit based on it.

8. Because there can be considerable variability within a given reach of a watercourse, wet weather conveyance determinations should not be made on a single point but must also investigate up and down channel and consider the watercourse's landscape context.

9. All of the indicators referred to in these rules and the Guidance are evidence relevant to the presence or absence of one or more of the four elements of the wet weather conveyance definition. The difference between the primary and secondary indicators is that each of the primary indicators is considered

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presumptive evidence alone regarding one or more of the four elements, and will allow for an immediate hydrologic determination to be made in most cases. Some of the primary indicators involve direct observations of the presence or absence of one or more of the elements. The primary indicators of wet weather conveyances are:

(i) hydrologic feature exists solely due to a process discharge,

(ii) defined bed and bank absent, watercourse dominated by upland vegetation/ grass,

(iii) watercourse dry anytime during February through April 15th under normal precipitation/ ground water conditions, and

(iv) daily flow and precipitation records showing feature only flows in direct response to rainfall.

10. Primary indicators of streams are:

(i) presence of multiple populations of obligate lotic organisms with two months or longer aquatic phase,

(ii) presence of fish (except Gambusia),

(iii) presence of naturally occurring ground water table connection,

(iv) flowing water in channel seven days or more since the last precipitation in the local watershed, and

(v) evidence watercourse has been used as a supply of drinking water.

11. When primary indicators cannot be observed or documented, then the investigator must evaluate the watercourse using secondary indicators. The secondary indicators are an aggregate set of observations that in total are used to evaluate the presence or absence of one or more of the elements of a wet weather conveyance. Secondary indicators are:

(i) continuous bed and bank,

(ii) sinuous channel,

(iii) in-channel structure, riffle-pool sequences,

(iv) sorting of soil textures or other substrate,

(v) active/relic floodplain,

(vi) depositional bars or benches,

(vii) braided channel,

(viii) recent alluvial deposits,

(ix) natural levees,

(x) headcuts,

(Rule 1200-04-03-.05, continued)

(xi) grade controls,

(xii) natural valley draingeway,

(xiii) at least second order channel on United States Geological Survey or Natural Resources Conservation Service map,

(xiv) subsurface flow/discharge into channel,

(xv) water in channel more than forty-eight hours since rain,

(xvi) leaf litter in channel,

(xvii) sediment on plants or on debris,

(xviii) organic debris lines or piles (wrack lines),

(xix) hydric soils in channel bed or sides,

(xx) fibrous roots in channel,

(xxi) rooted plants in channel,

(xxii) crayfish in channel (exclude in floodplain),

(xxiii) bivalves/mussels,

(xxiv) amphibians,

(xxv) macrobenthos,

(xxvi) filamentous algae, periphyton,

(xxvii) iron-oxidizing bacteria/fungus, and

(xxviii) wetland plants in channel.

12. The secondary indicators shall be scored in accordance with the instructions in the Guidance. Hydrologic determinations will often be made on the basis of secondary indicators because none of the primary indicators is present at the time of investigation. Any of the primary indicators contained in these rules and the Guidance may be considered conclusive after consideration of appropriate background information including recent weather and precipitation, in the absence of any directly contradictory evidence. However, since hydrologic determinations are required to be made at all times of year, secondary indicators of hydrologic status will be used, in accordance with the Guidance and these rules, as determinant evidence in the absence of primary indicators. The secondary indicators used in the Guidance shall be based on sound scientific principles.

13. Watercourses in which flow is solely a result of process or wastewater discharge or other non-natural sources shall not be regulated as streams even though they may exhibit characteristics of a stream rather than a wet weather conveyance.

(Rule 1200-04-03-.05, continued)

(b) The specific procedures outlined herein are intended to consider each of the four elements necessary for a watercourse to be classified as a wet weather conveyance.

1. Because the duration of the flow in a watercourse is the central inquiry of hydrologic determinations, all of the primary and secondary indicators are relevant to evaluating it. Although other factors may also be relevant, at a minimum the following procedures shall be used to determine if a watercourse flows only in direct response to precipitation runoff in its immediate vicinity.

(i) Prior to conducting a field evaluation, the investigator should review recent precipitation patterns for the local area, the longer-term seasonal precipitation trends, and any other available information such as historic land use, regional geology and soil types, or previous hydrologic determinations near the site to be investigated.

(ii) The investigator must decide if the determination is being conducted under "normal weather conditions." The procedure for determining if weather conditions are normal, or either wetter or drier than normal, is contained in the Guidance. If conditions are either wetter or drier than normal the investigator must take this into consideration in making a hydrologic determination.

(iii) The vast majority of wet weather conveyances will generally cease to flow within 48 hours of almost all except some of the largest rain events. This is especially true in urbanized, impervious areas, or other areas with low infiltration rates, such as mowed lawns. The investigator shall document the presence or absence of flow within the watercourse. If in-stream surface flow is observed within the evaluated reach, and it has been at least seven days since the last rainfall event in the upstream watershed, the flow will not be considered a direct storm response, and the investigator shall conclude that the feature is a stream. The investigator shall document the source of the precipitation data. The source used shall be as close as feasible to the watercourse.

(iv) When subsurface water discharges such as seeps, interstitial flow, perched water, or interflow are observed and used as indicators of hydrology, investigators shall consider the influence of recent precipitation events and localized soil and geologic conditions on these features to determine if these features provide adequate hydrology such that the watercourse flows more than in direct response to precipitation. For example, since some such features have more flow when there has been significant recent precipitation, if they are flowing when there has not been much recent precipitation, it is more likely that they flow for sustained periods. In some instances, there may be observable outcroppings of a confining layer such as shale or clay that causes interstitial flow to discharge to a watercourse. In this situation, the capacity of up-gradient conditions such as the permeability and volume of the soils above the confining layer to sustain extended periods of surface flow should be considered. These types of sustained discharges should not be considered a direct response to rainfall. In other instances, such as in areas with a highly karst geology, observed seeps into a watercourse may be not be able to sustain extended periods of flow, and may be considered a more direct response to rainfall.

(Rule 1200-04-03-.05, continued)

(v) Field investigations for hydrologic determinations should not be conducted if a one-inch precipitation event in 24 hours has occurred in the area of investigation within the previous 48 hours.

2. The following procedures are to determine if the channel is above the ground water table at all times. Under the definition of wet weather conveyance in T.C.A. §69-3-103, if there are any times that the channel is not above the ground water table, it is a stream.

(i) Since larger streams and rivers are frequently in contact with the ground water table, the investigator shall review topographic maps to determine if the watercourse is within the floodplain of, or within twenty feet in elevation of a larger stream or river known to carry perennial flow. Flow in such a watercourse should not be considered conclusive evidence of a ground water table connection, but is contributing evidence to be considered in the determination. Therefore further investigation into additional factors including those listed below is necessary to determine that the watercourse in question is in contact with the ground water table.

(ii) Since the presence of wetlands often indicates a shallow depth to the ground water table, the investigator shall search for the presence of wetlands in the immediate vicinity of the watercourse both on topographic maps and in the field. The presence of wetlands in the vicinity of the watercourse being examined should not be considered conclusive evidence of a ground water table connection, but is contributing evidence to be considered in the determination. Therefore further investigation into other factors including those listed below is necessary to determine that the watercourse in question is in contact with the ground water table.

(iii) The investigator shall review United States Department of Agriculture soil surveys. Their soil descriptions often contain information on depth to water table. For watercourses whose channels are at a depth that indicates contact with the ground water table for the soil type in which they are formed, the investigator can conclude that the watercourse is in contact with the water table, absent contradicting field information.

(iv) The investigator shall review site geological characteristics affecting the elevation of the ground water table with respect to the elevation of the channel, including the presence of karst bedrock features, erodibility of watershed soils, thickness of regolith and channel alluvium, depth to bedrock or laterally persistent silt or clay horizons, land-use disturbances, and other watershed conditions controlling or contributing to the presence or absence of channel base flow.

(v) If data are available from water wells within one mile of and in similar landscape position to a watercourse under investigation, and if the surface elevation of standing water in the well is at or above the elevation of the bottom of the channel of the watercourse, then the investigator can conclude that the watercourse is in contact with the ground water table.

(vi) The observed emergence of water from the ground is not necessarily water from the ground water table and should not be considered as conclusive for the purpose of this element. Therefore further investigation into factors including those listed above is necessary to determine the source of the emergent water.

(Rule 1200-04-03-.05, continued)

3. The following procedures are to determine if a watercourse is suitable for drinking water supplies. The investigator should note spring boxes, water pipes to carry water from the watercourse to a residence, or other observable evidence the watercourse is being used as a household water supply upstream of or within the segment being evaluated. When these features are noted, the investigator can conclude that the watercourse is a stream absent contradicting information.

4. The following procedures are to determine if a watercourse, under normal weather conditions, due to naturally occurring ephemeral or low flow does not have sufficient water to support fish, or multiple populations of obligate lotic aquatic organisms whose life cycle includes an aquatic phase of at least two months.

   (i) The presence of the requisite aquatic life is a primary indicator that the watercourse supports that aquatic life. In order to find that the requisite aquatic life is present, the investigator must document more than one individual of at least two qualifying taxa in the evaluated reach under normal weather conditions. Unhatched eggs or any other stage of a taxon's life cycle that could be found in a wet weather conveyance or lentic habitat (such as a deceased winged adult) should not be considered as a primary indicator that a watercourse is a stream. The specific taxa found should be noted on the Data Sheet. Representative individuals of the taxa used to make this determination should be collected for confirmation of identification. All aquatic life observed should be noted, even if some do not qualify as primary indicators. These organisms may also be relevant as secondary field indicators.

   (ii) Indigenous members of taxa within the benthic macroinvertebrate groups listed below are obligate lotic aquatic organisms and thus are primary indicators that a watercourse is a stream when two or more specimens of two or more taxa are documented under normal weather conditions.

      (I) Gastropoda: Pleuroceridae, Viviparidae, Valvatidae

      (II) Bivalvia: Unionidae

      (III) Coleoptera: Dryopidae, Elmidae, Psephenidae, Ptilodactylidae, Staphylinidae

      (IV) Diptera: Athericidae, Blephariceridae, Chironomidae (except: Chironomini or red midges), Empididae, Ptychopteridae, Tanyderidae, and some Tipulidae (Antocha, Rhabdomastix, Dicranota, Hexatoma, Limnophila, Tipula)

      (V) Ephemeroptera: all members, except: Siphlonuridae, and some Ephemeridae (Hexagenia)

      (VI) Megaloptera: all members, except: Chauliodes

      (VII) Odonata: Aeshnidae, Calopterygidae, Cordulegastridae, Gomphidae, some Coenagrionidae (Argia, Chromagrion, Amphiagrion), some Libellulidae (Perithemis) and some Corduliidae (Epitheca, Helocordulia, Neurocordulia)

      (VIII) Plecoptera: all members

(Rule 1200-04-03-.05, continued)

(IX) Trichoptera: all members, except: Molannidae, some Leptoceridae *(*Nectopsyche, Triaenodes*)*, and some Limnephilidae (Ironoquia, Limnephilus, Hesperophylax)

(X) Oligochaetes: Branchiobdellidae, Lumbriculidae, Sparganophilidae, some Tubificidae (subfamily Naidinae, Ilyodrilus, Rhyacodrilus, Varichaetadrilus), and some Lumbricidae (Eiseniella tetraedra only).

(iii) The presence of any indigenous fish species, other than the Mosquitofish (*Gambusia*), documented under normal weather conditions, is also a primary indicator that the watercourse is a stream, and constitutes support of the requisite aquatic life.

(iv) There are conditions in which a stream may be dry for a period of weeks or even months, but supports multiple populations of lotic aquatic organisms or fish at other times during a year. In such conditions, an investigator could appropriately determine that there is sufficient water on an annual basis to support such populations even though there were not any present on a particular date. In addition, manmade pollution or other water quality issues may preclude support of these organisms. Therefore, the absence of lotic aquatic organisms at the time of the investigation cannot be the sole basis for a determination that a watercourse meets the fourth element of the definition. When multiple populations of lotic aquatic organisms or fish cannot be documented to occur in a watercourse, then the investigator must consider the hydrologic and biologic factors referred to as secondary indicators in these rules and the Guidance to make a hydrologic determination.

(v) Under normal weather conditions, if the investigator documents the absence of water due to naturally occurring conditions in a watercourse between February 1 and April 15, then the investigator can conclude the watercourse is unable to support fish or multiple populations of obligate lotic aquatic organisms whose life cycle includes an aquatic phase of at least two months and is therefore a wet weather conveyance.

Authority: *T.C.A. §§4-5-201 et seq., 63-9-101 et seq., and 69-3-105.* ***Administrative History:*** *Original rule certified June 7, 1974. Amendment filed December 1, 1975; effective December 30, 1975. Amendment filed November 25, 1977; effective December 26, 1977. Amendment filed March 30, 1983; effective April 29, 1983. Amendment filed July 16, 1991; effective August 30, 1991. Amendment filed May 16, 1995; effective July 30, 1995. Amendment filed July 13, 1999; effective October 11, 1999. Amendment filed October 24, 2003; effective January 7, 2004. Amendment filed July 23, 2007; effective October 6, 2007. Amendment filed March 2, 2011; effective May 31, 2011.*

]1200-04-03-.06 ANTIDEGRADATION STATEMENT.

(1) It is the purpose of Tennessee's standards to fully protect existing uses of all surface waters as established under the Act. Existing uses are those actually attained in the waterbody on or after November 28, 1975. Additionally, the Tennessee Water Quality Standards shall not be construed as permitting the degradation (see definition) of high quality surface waters. Where the quality of Tennessee waters is better than the level necessary to support propagation of fish, shellfish, and wildlife, and recreation in and on the water, that quality will be maintained and protected unless the state finds, after intergovernmental coordination and public participation, that lowering water quality is necessary to accommodate important economic or social development in the area in which the waters are located.

(Rule 1200-04-03-.06, continued)

Sources exempted from permit requirements under the Water Quality Control Act should utilize all cost-effective and reasonable best management practices. Activities that cause or contribute to non-compliance with a water quality standard will not be allowed. Activities proposed for waters that are not identified as either being Exceptional Tennessee Waters (1200-04-03-.06(4)) or Outstanding National Resource Waters (1200-04-03-.06(5)), will be evaluated on the basis of 1200-04-03-.06(2) and (3).

Where new or increased temperature alterations are proposed, a successful demonstration as determined by the state under Section 316(a) of the Clean Water Act, 33 U.S.C. §1326, shall be considered to be in compliance with this section.

(2) Unavailable conditions exist where water quality is at, or fails to meet, the criterion for one or more parameters. In unavailable conditions, new or increased discharges of a substance that would cause or contribute to a condition of impairment will not be allowed. Where impairment by habitat alteration exists, additional significant loss of habitat within the same area of influence shall not be authorized unless avoidance, minimization, or in-system mitigation can render the impact de minimis.

(3) Available conditions exist where water quality is better than the applicable criterion for a specific parameter. In available conditions, new or additional degradation for that parameter will only be allowed if the applicant has demonstrated to the department that reasonable alternatives to degradation are not feasible.

(a) Analysis of reasonable alternatives shall be part of the application process and shall include a discussion of the feasibility of all potential alternatives, plus the social and economic considerations and environmental consequences of each. Alternatives analyses shall include, at a minimum, completed and accurate Worksheets A and B for public sector applicants or Worksheets A and G for private system applicants, except where these worksheets are inappropriate for the activity, in which case applicants may substitute materials that provide equivalent information. These forms are found in the EPA guidance document entitled Interim Economic Guidance for Water Quality Standards: Workbook (EPA 823/B-95-002) (Economic Guidance). Reasonable alternatives for the various activities include, but are not limited to the following actions.

1. Alternatives for discharges include connection to an existing collection system, land application, water reuse, water recycling, or other treatment alternatives. For small domestic discharges, connection to an existing system or land application will be considered preferable.

2. For water withdrawals, alternatives include water conservation, water reuse or recycling, off-stream impoundments, water harvesting during high flow conditions, regionalization, withdrawing water from a larger waterbody, use of ground water, connection to another water supply with available capacity, and pricing structures that encourage a reduction in consumption.

3. For activities that cause habitat alterations, alternatives that minimize or avoid degradation should be explored and explained by the applicant. These avoidance or minimization activities could include maintaining or enhancing buffer zones, bridging a stream rather than culverting it, altering the footprint of a project instead of relocating a stream, or using a culvert without a bottom, instead of one that is fully concreted.

(b) For authorized new or expanded discharges, a record of the antidegradation determination(s) will be maintained and will be available for public review. Public participation and intergovernmental coordination will be provided in conjunction with permitting activities.

(Rule 1200-04-03-.06, continued)

(4) (a) Exceptional Tennessee Waters are waters that are in any one of the following categories:

1. Waters within state or national parks, wildlife refuges, forests, wilderness areas, or natural areas;

2. State Scenic Rivers or Federal Wild and Scenic Rivers;

3. Federally-designated critical habitat or other waters with documented non-experimental populations of state or federally-listed threatened or endangered aquatic or semi-aquatic plants, or aquatic animals;

4. Waters within areas designated as Lands Unsuitable for Mining pursuant to the federal Surface Mining Control and Reclamation Act where such designation is based in whole or in part on impacts to water resource values;

5. Waters with naturally reproducing trout;

6. Waters with exceptional biological diversity as evidenced by a score of 40 or 42 on the Tennessee Macroinvertebrate Index (or a score of 28 or 30 in subecoregion 73a) using protocols found in TDEC's 2006 Quality System Standard Operating Procedure for Macroinvertebrate Stream Surveys, provided that the sample is considered representative of overall stream conditions; or

7. Other waters with outstanding ecological, or recreational value as determined by the department. When application of this provision is a result of a request for a permit, such preliminary determination is to be made within 30 days of receipt of a complete permit application.

(b) The department will maintain a list of waterbodies that have been reviewed and are known to have one or more of the above characteristics on its website and will make paper copies of that list available upon request.

(c) In waters identified as Exceptional Tennessee Waters no degradation will be allowed unless and until it is affirmatively demonstrated to the Department, after full satisfaction of the following intergovernmental and public participation provisions, that a change is justified as a result of necessary economic or social development and will not interfere with or become injurious to any classified uses existing in such waters. At the time of permit renewal, previously authorized discharges, including upstream discharges, which presently degrade Exceptional Tennessee Waters, will be subject to a review of updated alternatives analysis information provided by the applicant, but not to a determination of economic/social necessity. Public participation for these existing discharges will be provided in conjunction with permitting activities. Sources exempted from permit requirements under the Water Quality Control Act should utilize all cost-effective and reasonable best management practices.

(d) Determination of Economic/Social Necessity - Where reasonable alternatives to degradation to an Exceptional Tennessee Water is not feasible, applicants may ask the Department to determine that the proposed degradation is justified on the basis of economic or social necessity. The applicant shall have the burden of establishing to the Department that a change is justifiable as a result of necessary economic or social development and will not interfere with or become injurious to any classified uses existing in such waters. The Department's determination that degradation is justified or unjustified shall be subject to review by the Water Quality Control Board under the following procedures.

(Rule 1200-04-03-.06, continued)

1. If the Department determines that degradation is justified, it will notify the applicant, the federal and state intergovernmental coordination agencies, and third persons who requested notification of the determination. Within 30 days after the date of the notification, any affected intergovernmental coordination agency or affected third person may petition the Board for a declaratory order under Tennessee Code Annotated § 4-5-223, and the Board shall convene a contested case. After the Board has convened a contested case in response to a declaratory order petition under this part, the Department shall within 5 business days thereafter transmit the petition to the Administrative Procedures Division of the Secretary of State so the contested case may be docketed and an administrative law judge may be assigned to the case. If a declaratory order petition is timely filed, the Department shall not proceed further in processing the permit application until the petition has been resolved before the Board. In the contested case, the petitioner shall have the burden of proof, and the Department's determination shall carry no presumption of correctness before the Board. The applicant is a necessary party to the declaratory order contested case, and if the applicant does not participate in the contested case, the Board shall render a decision that degradation is not justified. If no intergovernmental coordination agency or third person petitions for a declaratory order within 30 days of the notification date, then the Department shall proceed with processing the permit application.

2. A declaratory order contested case conducted under this provision shall be subject to the following procedures. Mediation may occur if all the parties agree. Any proposed agreed order resulting from mediation shall be subject to approval by the Board. In order to provide for an expedited proceeding, the contested case is subject to the following time limitations. The time periods specified in this part shall commence on the day after the contested case has been docketed by the Administrative Procedures Division of the Secretary of State and an administrative law judge has been assigned to the case. Any alteration of the time periods set out in this part shall be granted only upon agreement of all the parties, or when there have been unforeseen developments that would cause substantial prejudice to a party, or when the parties have agreed to mediation. Within 20 days, the parties shall confer to try and develop a proposed agreed scheduling order. If the parties are unable to agree, then each party shall submit a proposed scheduling order, and the administrative law judge, after a hearing, shall enter a scheduling order. All discovery shall be completed no later than 20 days prior to the date the hearing before the Board is to begin. Within 120 days, the hearing before the Board shall begin, but the Board on its own initiative may exceed 120 days to complete the hearing and render its final decision. In order for degradation of Exceptional Tennessee Waters to proceed pursuant to these rules, the Board must make a finding approving degradation by a majority vote of the members of the Board present and voting.

3. If the Department determines that degradation is not justified, it will notify the applicant, the federal and state intergovernmental coordination agencies, and third persons who requested notification of the determination. The Department also will issue a tentative decision to deny the permit because degradation is not justified. In accordance with 1200-4-5-.06(4), the Department will provide the public with notice of and an opportunity to comment on its tentative denial decision. If no public hearing is requested within the 30 day public comment period, and if the Department does not alter its tentative decision to deny, the Department shall notify the applicant of its final decision to deny the permit because degradation is not justified. Within 30 days after receiving notice of the final decision to deny the permit, the applicant may seek review of the decision in a contested case before the Board in accordance with Tennessee Code

(Rule 1200-04-03-.06, continued)

Annotated § 69-3-105(i). Within 5 business days after the Department receives an applicant's written request for a contested case hearing before the Board, the Department shall transmit the written request to the Administrative Procedures Division of the Secretary of State so the contested case may be docketed and an administrative law judge may be assigned to the case. In the contested case, the applicant shall have the burden of proof, and the Department's determination shall carry no presumption of correctness before the Board. The federal and state intergovernmental coordination agencies, and third persons who requested notification of the Department's degradation determination will be notified by the Department of the applicant's permit appeal. The intergovernmental coordination agencies and third persons may seek to intervene in the contested case in accordance with Tennessee Code Annotated § 4-5-310.

(e) Information Requirements:

1. Applicants requesting an economic/social necessity determination to allow degradation under this provision must provide all information required in order for the Department to make a determination that reasonable alternatives to degradation are not feasible. Reasonable alternatives for discharges may include, but are not limited to, connection to an existing collection system, land application, water reuse, water recycling, or other treatment alternatives. Applicants for permit renewals of previously authorized discharges, including upstream discharges, which presently degrade Exceptional Tennessee Waters, shall submit as an alternatives analysis completed and accurate Worksheets A and B for public sector applicants or Worksheets A and G for private system applicants, except where these worksheets are inappropriate for the activity, in which case applicants may substitute materials that provide equivalent information. If needed, the Department may request the applicant to provide additional information. Alternatives analysis for new or additional degradation shall include, at a minimum, completed and accurate Worksheets A and B for public sector applicants or Worksheets A and G for private system applicants, except where these worksheets are inappropriate for the activity, in which case applicants may substitute materials that provide equivalent information. These forms are found in the EPA guidance document (Economic Guidance).

2. Additionally, to provide information to the Department regarding the applicant's claim of economic/social necessity, public sector applicants shall complete and submit, at a minimum, Forms O, P, Q, S, T, U, and AA, found in the EPA guidance document (Economic Guidance). Private sector applicants shall complete and submit, at a minimum, Forms O, R, V, W, X, Y, Z, and AB, found in the EPA guidance document (Economic Guidance). In instances when these worksheets are inappropriate for the activity, those applicants may substitute materials that provide equivalent information.

(f) Public Participation:

1. NPDES - Applicants seeking permission to degrade Exceptional Tennessee Waters shall publish a notice in a newspaper of general distribution in the area of the degradation. The notice shall identify the proposed discharge, provide the specific location including affected waters, describe the general basis for requesting permission to degrade Exceptional Tennessee Waters, inform the public of their opportunity to provide comments, and that a local public meeting will be held by the Department unless the Department notifies the public of its determination that the discharge will not result in degradation. The applicant shall also post a sign within sight of a public road containing the same general information as the newspaper notice. A copy of the newspaper notice and proof

(Rule 1200-04-03-.06, continued)

of signage shall be provided to the Department. The public meeting held by the Department shall be near the proposed degradation.

2. ARAP/Section 401 Water Quality Certification - If the Department determines that an applicant's proposed activity will not result in degradation, it will so notify the public. If the Department determines that the proposed activity will degrade Exceptional Tennessee Waters, and the applicant intends to seek permission to do so, then the applicant shall publish a notice in a newspaper of general distribution in the area of the degradation. The notice shall identify the proposed activity, provide the specific location including affected waters, describe the general basis for requesting permission to degrade Exceptional Tennessee Waters, inform the public of their opportunity to submit comments, and that a local public meeting will be held by the Department. The public meeting held by the Department shall be near the proposed degradation.

3. Timing of Public Participation - Within 14 days of the Department being informed that an applicant will seek degradation, the applicant shall provide notice, as identified above, to the affected public. After the applicant provides public notice, the Department shall notify the public of the location, date and time of the public meeting in the area of degradation. Public notice by the Department shall occur at least 45 days prior to the meeting. For a proposed discharge, if the Department determines that the discharge will not result in degradation, it will so notify the public and in this circumstance, there will be no public meeting.

(g) Intergovernmental Coordination - A notice concerning the request for an economic/social necessity determination shall be provided by the Department to federal and state agencies with jurisdiction over fish, wildlife, shellfish, plant and wildlife resources, parks, and advisory councils for historic preservation.

(5) The Department may recommend to the Water Quality Control Board that certain waterbodies be designated as Outstanding National Resource Waters (ONRWs). These shall be high quality waters which constitute an outstanding national resource, such as waters of National and State parks and wildlife refuges and waters of exceptional recreational or ecological significance.

Designation of ONRWs must be made by the Water Quality Control Board and will be accomplished in accordance with Section 69-3-105(a)(1) of the Tennessee Water Quality Control Act and through the appropriate rulemaking process.

In surface waters designated by the Water Quality Control Board as ONRWs, no new discharges, expansions of existing discharges, or mixing zones will be permitted unless such activity will not result in measurable degradation of the water quality. Existing water quality will be the criteria in these waters. Physical alterations that cause degradation to the ONRW will not be allowed. At time of permit renewal, previously authorized discharges, including upstream discharges, which presently degrade an ONRW, will be subject to alternatives analysis. Public participation for these existing discharges will be provided in conjunction with permitting activities.

An assessment of environmental, economic, and social impacts will be prepared for each stream or stream segment proposed for ONRW designation. The assessment content and process will be determined by the department but will contain sufficient data and information to inform the Water Quality Control Board about environmental, economic, and social impact of ONRW designation. Further, the process will provide for comprehensive public participation with a solicitation of position statements from appropriate local government agencies including but not limited to county and municipal governments, Soil Conservation Districts, Utility Districts, as well as other local, state, and federal agencies that may have

(Rule 1200-04-03-.06, continued)

responsibility for land and water resource management within the watershed of the proposed stream segment.

The following streams or portions of streams are designated as ONRW:

	WATERBODY	PORTION DESIGNATED AS ONRW
(a)	Little River	Portion within Great Smoky Mountains National Park.
(b)	Abrams Creek	Portion within Great Smoky Mountains National Park.
(c)	West Prong Little Pigeon River	Portion within Great Smoky Mountains National Park upstream of Gatlinburg.
(d)	Little Pigeon River	From the headwaters within Great Smoky Mountains National Park downstream to the confluence of Mill Branch.
(e)	Big South Fork Cumberland River	Portion within Big South Fork National River and Recreation Area.
(f)	Reelfoot Lake	Tennessee portion of the lake and its associated wetlands.

The portion of the Obed River that is designated as a federal wild and scenic river as of June 22, 1999 is designated as ONRW, provided however, that if the current search for a regional water supply by the Cumberland Plateau Regional Water Authority results in a determination that it is necessary to utilize the Obed River as its source of drinking water, for that purpose the Obed shall be designated as an Exceptional Tennessee Water and any permit issued for that project, whether state, federal, or otherwise, shall be considered under the requirements for Exceptional Tennessee Waters.

(6) All discharges of municipal sewage, industrial waste, or other wastes shall receive the greatest degree of effluent reduction which the Commissioner of the Tennessee Department of Environment and Conservation determines to be achievable through application of stringent effluent limitations and schedules of compliance either promulgated by the Water Quality Control Board; required to implement any applicable water quality standards, including where practicable, a standard permitting no discharge of pollutants; necessary to comply with a State Water Quality Plan; or necessary to comply with other State or Federal laws or regulations.

(7) In implementing the provisions of these rules as they relate to interstate streams, the Commissioner of the Tennessee Department of Environment and Conservation and the Tennessee Water Quality Control Board will cooperate with the appropriate Federal Agency in order to assist in carrying out responsibilities under the Federal Water Pollution Control Act, as amended.

Authority: *T.C.A. §§4-5-201 et seq., and 69-3-105.* ***Administrative History:*** *Original rule certified June 7, 1974. Amendment filed December 1, 1975; effective December 30, 1975. Amendment filed November 25, 1977; effective December 26, 1977. Amendment filed March 30, 1983; effective April 29, 1983. Amendment filed July 16, 1991; effective August 30, 1991. Amendment filed May 16, 1995; effective July 30, 1995. Amendment filed July 13, 1999; effective October 11, 1999. Amendment filed October 24, 2003; effective January 7, 2004. Amendment filed July 23, 2007; effective October 6, 2007.*

(Rule 1200-04-03-.06, continued)

1200-04-03-.07 GROUND WATER CLASSIFICATION.

(1) Purpose and Intent

(a) It is one of the primary goals of the Tennessee Water Quality Control Act, Tennessee Code Annotated (T.C.A.) §§ 69-3-101 et seq. (the "Act") to protect our valuable ground water resource. This rule classifies ground water across the state based on the factors stated in T.C.A. § 69-3-105(a)(2) of the Act and establishes ground water quality criteria. The quality of ground water varies in Tennessee. Some ground water is sufficient to be used by our citizens directly as a drinking water supply with limited or no treatment. Other ground water would require more extensive treatment before it could be used as a water supply. Further, some ground water may be of such value as to warrant special protection. The board recognizes that some water below the surface of the ground may be present in a zone of aeration between ground surface and the water table. The zone of aeration is where treatment from household septic systems occurs and water in the zone of aeration is not classified as ground water in these regulations. Perched water above the zone of saturation may, in some areas, be used as a water supply or may migrate to either ground water or surface water and is included in these regulations to protect for its direct use or impact on ground water or surface water. Additionally, some ground water has levels of naturally occurring constituents that make the resource unusable as a drinking water supply.

(b) The board recognizes these rules apply to both permitting activities and response actions that involve water beneath the surface of the ground. The permitting of underground injection is governed by Rule Chapter 1200-4-6.

(c) These rules provide appropriate flexibility in the regulatory process to protect our ground water resource and to allow the productive use of land. Reuse of brownfield areas is encouraged and reduces the use of greenfield areas.

(d) The board recognizes that several divisions within the department have a role in protecting ground water resources. It is not the intent of these rules to change the responsibilities of those programs. It is, however, the intent of these rules to provide a basis for decisions involving ground water that may be applied by all divisions of the department. The board does not intend these rules to affect in any way the ability of the State to seek natural resource damages from responsible parties when ground water has been contaminated by human activity.

(e) Ground water that enters a stream or other water classified as surface water becomes surface water and is subject to respective criteria applicable to that water. The board expects that the department will use prudent judgment where ground water mixes with water on the surface of the ground.

(2) Definitions

(a) "Area of Control" means a volume designated by the commissioner underlying or surrounding a site, including the zone of aeration and the zone of saturation, containing water, some of which the commissioner has determined not to meet applicable criteria.

(b) "Ground Water" means water beneath the surface of the ground within the zone of saturation, whether or not flowing through known and definite channels..

(c) "Perched water" means water that accumulates above an aquitard that limits downward migration where there is an unsaturated interval below it, between the aquitard and the zone of saturation.

(Rule 1200-04-03-.07, continued)

(d) "Point of Classification Change" means the boundary of the volume within which ground water is classified as Site Specific Impaired as established under Rule 1200-04-03-.09.

(e) "Response action" means a clean up, remedial action, remedy, remedial investigation or other action taken by the department to address the presence of contaminants at levels that have been determined by the Department to require an appropriate response.

(f) "Zone of Aeration" means a subsurface zone extending from the water table to the surface of the land.

(g) "Zone of Saturation" means a subsurface zone below the water table in which all of the interconnected voids and pore spaces are filled with water

(3) Water in the Zone of Aeration

Water in the zone of aeration is not defined as ground water in this rule, but it may occur as perched water. This perched water may be above ground water of any of the classifications used in this rule. Perched water is protected under this rule in accordance with its use as follows:

(a) Perched water that is used for drinking water or reasonably anticipated to be used as a drinking water supply shall meet the criteria listed for General Use in Rule 1200-04-03-.08(2). Other perched water shall not contain constituents, other than of natural origin, that cause or are reasonably likely to cause a violation of criteria of underlying ground water or surface water where the perched water enters those waters.

(b) Except for naturally occurring levels, perched water shall contain no other constituents at levels and conditions that pose an unreasonable risk to public health or the environment.

(c) If perched water, such as in a cave system, is habitat for fish and aquatic life, it shall contain no constituents except for naturally occurring substances at levels and concentrations that violate the criteria of Rule 1200-04-03-.03(3) for fish and aquatic life.

(4) Water below the surface of the ground is classified as follows:

(a) Special Source Waters

This is ground water or perched water with exceptional quality or quantity, which may serve as a valuable source for water supply or which is ecologically significant.

When the board finds water to be Special Source Water, then through the rulemaking process, the board will amend these rules to include the specific location and the boundaries of ground water or perched water designated as Special Source Water. To initiate this process, a petition shall address the factors listed below for board consideration. Any cost involved in making the petition shall be borne by the petitioner. In making this decision, the board may consider the following factors and relevant public input:

1. The vulnerability of the water in the proposed area to contamination due to hydrogeologic characteristics;

(Rule 1200-04-03-.07, continued)

2. The number of persons or the proportion of the population using the water as a drinking water supply;

3. Existing water quality in the proposed Special Source Water area;

4. An evaluation of the ecological and environmental impact should the quality of the Special Source Water be compromised; and

5. Other pertinent information as deemed necessary by the petitioner, department, or board. Because such action is a rulemaking procedure, public input may be made as provided in the Uniform Administrative Procedures Act, T.C.A. §§ 4-5-201 et. seq., but not as a contested case under T.C.A. §§ 4-5-301 et. seq.

(b) General Use Ground Water

Except for ground water in areas that have been designated as Special Source Water, Site Specific Impaired Ground Water, or meet the definition of Unusable Ground Water, all ground water is designated General Use Ground Water.

(c) Site Specific Impaired Ground Water

This is ground water that has been contaminated by human activity and the board finds that either it is not technologically feasible to remediate the ground water to the criteria required by other classifications or it is not reasonable to remediate to that criteria based on information provided in accordance with Rule 1200-04-03-.09. Ground water shall be classified as Site Specific Impaired upon approval of a petition to the Water Quality Control Board and completion of the rulemaking process to amend these rules to identify the reclassified ground water. When ground water is reclassified to Site Specific Impaired the areal extent of the Site Specific Impaired Ground Water shall be delineated. The boundaries of the Site Specific Impaired Ground Water cannot extend beyond the perimeter and depth investigated with an appropriate safety factor as determined under Rule 1200-04-03-.09. Figures which clearly depict the horizontal and vertical boundaries of the Site Specific Impaired Ground Water must be submitted to the department in the plans/reports required by Rule 1200-04-03-.09.

(d) Unusable Ground Water

Ground water in the following areas are classified as Unusable Ground Water:

1. A “High Dissolved Solids Zone” is an area in which ground water has naturally occurring total dissolved solids of more than 10,000 ppm.

2. A “Historical Injection Zone” is an area in which the ground water and the injection zone designated to receive fluids and other substances from deep well injection initiated prior to September 1985 and operated under compliance with the Department at the time of injection is no longer subject to injection. The certification as a historical injection zone subclass of Unusable Ground Water does not provide authorization for future injection activities and shall not be construed as Class I zone designation under Rule Chapter 1200-4-6, Underground Injection Control. The zone may be subsequently considered for Class I zone designation under that Rule Chapter provided it meets the criteria based on naturally occurring conditions and not from changes as a result of the previously injected fluids.

3. A “Class I Injection Zone” is an area in which ground water has been demonstrated by a permit applicant as a part of a Class I operation under Rule

(Rule 1200-04-03-.07, continued)

Chapter 1200-4-6, Underground Injection Control, to be suitable for Class I injection.

4. A "Class II or III Injection Zone" is an area in which ground water is mineral, hydrocarbon or geothermal energy producing, or has been demonstrated by a permit applicant as a part of a permit application for a Class II or III operation under Rule Chapter 1200-4-6 Underground Injection Control to contain minerals or hydrocarbons that, considering their quality and location, are expected to be commercially producible. The designation as Class II or III injection zone subclass of Unusable Ground Water shall not be construed as a Class I zone designation under Rule Chapter 1200-4-6, Underground Injection Control.

5. An "Acid Production Zone from Mining Activities" is an area in which ground water occurs within an excavated area where reaction with naturally occurring minerals generates acid rock drainage or acid mine drainage. An excavated area may be a surface or underground mined area as well as a subsidence area whether or not the mined area is backfilled. Ground water beyond the excavated area is classified as described elsewhere in this rule.

Authority: *T.C.A. §§4-5-201 et seq., and 69-3-105.* ***Administrative History:*** *Original rule filed June 28, 1999; effective September 11, 1999. Amendment filed July 13, 1999; effective October 11, 1999. Repeal and new rule filed March 24, 2008; effective June 7, 2008.*

1200-04-03-.08 CRITERIA.

The water quality criteria for the different classes are as follows:

(1) Special Source Water

The board will consider the special protection needs of any water identified as Special Source Water and promulgate criteria at the time of designation.

(2) General Use Ground Water

Except for naturally occurring levels, General Use Ground Water:

(a) shall not contain constituents that exceed those levels specified in Rules 1200-04-03-.03(1)j and k; and

(b) shall contain no other constituents at levels and conditions which pose an unreasonable risk to the public health or the environment.

(3) Site Specific Impaired Ground Water

Except for naturally occurring levels, Site Specific Impaired Ground Water:

(a) shall contain no substances, whether alone or in combination with other substances , that are toxic, carcinogenic, mutagenic or teratogenic, other than those of natural origin, at levels and conditions which pose an unreasonable risk to public health or the environment;

(b) shall contain no other constituents at levels and conditions which pose an unreasonable risk to the public health or the environment;

(Rule 1200-04-03-.08, continued)

(c) shall contain no constituents at levels that will prevent ground waters beyond the point of classification change from meeting the classification and criteria for those waters; and

(d) other criteria established by the board as appropriate to the site.

(4) Unusable Ground Water

Except for naturally occurring levels, Unusable Ground Water:

(a) shall contain no substances, whether alone or in combination with other substances, that are toxic, carcinogenic, mutagenic or teratogenic, other than those of natural origin, at levels and conditions which pose an unreasonable risk to the public health;

(b) shall contain no other constituents at levels and conditions which pose an unreasonable risk to the public health;

(c) shall not discharge to surface water causing a violation of surface water quality criteria or biological integrity; and

(d) naturally occurring levels as used in subparagraph (a) of this paragraph shall include the natural minerals, mining wastes, and the reaction products of oxidation and reduction associated with these materials in Unusable Ground Water in an Acid Production Zone from Mining Activities. These substances shall not pose an unreasonable public health or safety risk to the public. Physical barriers and institutional controls satisfy that requirement.

Authority: *T.C.A. §§4-5-201 et seq., and 69-3-105.* ***Administrative History:*** *Original rule filed June 28, 1999; effective September 11, 1999. Amendment filed July 13, 1999; effective October 11, 1999. Repeal and new rule filed March 24, 2008; effective June 7, 2008.*

1200-04-03-.09 SITE SPECIFIC IMPAIRED CLASSIFICATION PETITION PROCESS.

(1) Any person who encounters ground water that may meet the requirements for Site Specific Impaired, may petition the board to adopt a rule reclassifying that ground water as Site Specific Impaired, using the process set forth in this rule. Any costs involved in making the petition shall be borne by the petitioner. The petition shall include the following, unless it is determined by the department in writing that the site conditions render any of them unnecessary:

(a) An assessment of the horizontal and vertical extent of the contamination;

(b) An evaluation of the hydrogeology of the area including but not limited to the ground water flow rate and direction, permeability, recharge area, ground water classification and location of local water wells, springs and seeps;

(c) An evaluation of the area geology including, but not limited to, soil type, soil permeability, soil porosity, depth to bedrock, and identification of geologic formations;

(d) A description of the corrective actions or response actions taken or proposed;

(e) The chemical characteristics of the constituents(s) including, but not limited to, the constituent's solubility, mobility, toxicity, and carcinogenicity, the nature of and the level of constituents to remain or be present in the ground water and the calculations and rationale used in the determination;

(Rule 1200-04-03-.09, continued)

(f) A feasibility study, which evaluates clean-up alternatives, the cost, and the time to complete each alternative;

(g) An evaluation of current and reasonably anticipated future ground water use within the proposed Site Specific Impaired area and within a one-half (1/2) mile radius of the proposed Site Specific Impaired area; the impact of conduit flow shall be evaluated in karst areas;

(h) An evaluation of current and reasonably anticipated future land uses within the proposed Site Specific Impaired area and within a one-half (1/2) mile radius of the proposed Site Specific Impaired area;

(i) An evaluation of the potential of the constituent to migrate through soil and ground water to:

1. homes;

2. buildings;

3. surface waters;

4. subsurface utilities; and

5. adjacent properties.

(j) A description of any existing or proposed monitoring program to observe constituent levels in soil and ground water;

(k) Evaluation of the existing or anticipated actual exposure pathways (inhalation, ingestion, dermal contact, etc.) of the constituents and an assessment of the human health risks presented by exposure to the constituents as well as the impact, if any, of the constituents on fish and aquatic life pursuant to Rule Chapter 1200-04-03;

(l) Consideration of the classification in Rule 1200-04-03-.07 that would apply to the ground water at the site if it were not contaminated;

(m) Analysis of the benefits of the restored resource;

(n) A description of how and when the contamination occurred, if known;

(o) A plat map with the proposed site-specific ground water area superimposed on it that shows all property owners for properties included in the Site Specific Impaired classification with contact information for owners of each property and identification and contact information for the parties paying property taxes on each property in the proposed Site Specific Impaired classification area; and

(p) Other items as requested by the department associated with the evaluation of the petition.

(2) Because Site Specific Impaired classification is a rulemaking procedure, public input may be made as provided in the Uniform Administrative Procedures Act, T.C.A.§§ 4-5-201 et. seq., but not as a contested case under T.C.A. 4-5-301 et. seq. In addition to the requirements for public input under the Uniform Administrative Procedures Act, T.C.A. §§ 4-5-201 et. seq., the petitioner shall, at a minimum, notify the party of record paying property taxes for each property subject to the Site Specific Impaired classification of the petition and the process for

(Rule 1200-04-03-.09, continued)

submitting comments on said petition. The petitioner shall provide a copy of such notification to the department.

(3) In the evaluation of a petition to classify ground water as Site Specific Impaired, the board may consider the following:

(a) the extent of any threat to human health or safety;

(b) the extent of damage to the environment;

(c) technology commercially available to accomplish restoration;

(d) a comparison of the environmental and economic costs and benefits to be derived from ground water quality restoration with the environmental and economic costs and benefits to be derived from classification as Site Specific Impaired;

(e) analysis of the restored resource;

(f) the point of classification change;

(g) contaminant or pollution source identification and cleanup;

(h) public comments; and

(i) other appropriate information presented in the petition.

Authority: *T.C.A. §§4-5-201 et seq., and 69-3-105.* ***Administrative History:*** *Original rule filed June 28, 1999; effective September 11, 1999. Amendment filed July 13, 1999; effective October 11, 1999. Repeal and new rule filed March 24, 2008; effective June 7, 2008.*

1200-04-03-.10 REMEDIATION OF GROUND WATER OR PERCHED WATER.

(1) When a release or other event occurs that causes subsurface water to not meet the criteria in these rules, the commissioner has authority under a number of statutes to cause remediation of the water. These statutes include the Solid Waste Disposal Control Act, T.C.A. §§ 68-211-101 et seq., the Hazardous Waste Management Act, parts 1 and 2, T.C.A. §§ 68-212-101 et seq., and §§ 68-212-201 et seq., the Petroleum Underground Storage Tank Act, T.C.A. §§68-215-101 et seq., and the Drycleaner Environmental Response Act, T.C.A. §§ 68-217-101 et seq. The goals of all such remediation actions are:

(a) to return waters to meeting standards when practicable by such methods as source removal, bioremediation, pump and treat, and natural attenuation; and

(b) to protect the public from exposure to water that does not meet standards through such methods as physical and institutional controls.

(2) In order to accomplish these goals the commissioner may establish an Area of Control when contamination has caused water to exceed the standards in these rules. In establishing an Area of Control, the commissioner shall use the authorities of the remediation statutes and rules to;

(a) describe the extent of an Area of Control; and

(b) protect the public from exposure to the water in the Area of Control.

(Rule 1200-04-03-.10, continued)

Where the commissioner identifies the source of pollution or water of sufficient contamination as to warrant contaminant mass reduction, he may further prescribe the actions to be taken to reduce the levels of contamination within the Area of Control.

(3) The commissioner may establish such an Area of Control for water contaminated by human activity prior to November 19, 1980 if there are no liable parties as defined in T.C.A. § 68-212-202 (3) (B), (C), or (D) and the current property owner did not cause the water contamination. This could be done in conjunction with imposing land use restrictions to protect the public from any harm caused by the site whether or not the department expends funds to remediate the site. In establishing such an Area of Control, the commissioner may use the authorities of the remediation statutes and rules to:

(a) describe the extent of an Area of Control;

(b) prescribe the actions to be taken to reduce the levels of contamination within the Area of control; and

(c) protect the public from exposure to the water in the Area of Control.

(4) Any current or future "alternate concentration limit" or "ground water protection standard" established within a Tennessee Hazardous Waste Management enforceable document in accordance with Tennessee Rule Chapter 1200-1-11-.06 identifies an Area of Control in accordance with this Rule. Compliance with the enforceable document constitutes compliance with the remediation actions identified in paragraph (1) of this Rule.

Authority: *T.C.A. §§4-5-201 et seq., and 69-3-105.* ***Administrative History:*** *Original rule filed June 28, 1999; effective September 11, 1999. Amendment filed July 13, 1999; effective October 11, 1999. Repeal and new rule filed March 24, 2008; effective June 7, 2008.*

1200-04-03-.11 CLASSIFIED SITE SPECIFIC IMPAIRED GROUND WATER AND RESPECTIVE CRITERIA.

The following ground water is classified as site specific impaired ground water with the respective criteria:

(1) Porter Cable

(a) Description of the site

The area of ground water classified is the ground water within the boundaries of the Porter Cable/Rockwell facility that is within the rectangle with the following boundary points to a depth equivalent to 250 feet mean sea level.

Northwest boundary point…35°44'27.5"N, 88°51'19.8"W

Northeast boundary point …35°44'27.5"N, 88°51'05.7"W

Southwest boundary point…35°44'13.8"N, 88°51'19.8"W

Southeast boundary point… 35°44'13.8"N, 88°51'05.7"W

A solvent plume under the western edge of the building is moving very slowly to the north-northwest. Since the plant began operation in the mid-1970's, the plume has migrated approximately 400 feet, with the property boundary another 1500 feet down gradient. Sampling has shown that the plume is degrading to a certain extent by

(Rule 1200-04-03-.11, continued)

natural and biologic processes, and this process can be enhanced with the addition of nutrients to fuel the biologic activity in the contaminated zone.

(b) Criteria

Nutrient addition is allowed to promote enhanced natural attenuation of the plume in accordance with the remediation remedy being used at the site. Deed restrictions will insure the site will not be used as residential and that ground water will not be used for potable purposes. The point of classification change is totally within the boundaries of the Porter-Cable facility. The plume shall not cross the point of classification change at levels exceeding general use criteria.

(2) Isabella Mine Pit

(a) Description of the site

The area of ground water classified is the ground water in mined areas of the former Isabella/Eureka Mine, the connected Isabella pit, ground water between the Isabella pit and North Potato Creek, and an approximate 500 foot buffer around the mined areas. This ground water classification applies to part of the land that was previously abandoned by the bankruptcy court and is now either under control of a court-appointed receiver or trustee for the Irrevocable Trust of the Tennessee Chemical company (receiver or trustee). If the 500 foot buffer boundary would extend beyond a property line, then the property line shall be the point of classification change. The depth of ground water classification is from ground surface to 1400 feet. The mined areas are delineated as shown on the former mining company's mine maps. The point of classification change for this area is the outer boundary of the area classified as described above and a depth of 1400 feet.

There is a bulkhead or plug between the Isabella/Eureka Mine and the Burra Burra Mine and this Site Specific Impaired classification includes the drift between the Isabella and Burra Burra Mines on the Isabella side of the drift plug but does not apply to water in the Burra Burra Mine. The drift does not require a 500-foot wide buffer zone.

(b) Criteria

The Site Specific Impaired Ground Water criteria for the water in the Isabella pit, associated Isabella/Eureka mine workings, and ground water between the Isabella pit and North Potato Creek shall be:

1. Any concentration of inorganic constituents or elements associated with acid mine drainage and any pH or other physical standard associated with acid mine drainage;

2. Any concentration of inorganic constituents or elements associated with approved backfilling or addition of ore, waste rock, calcine, concentrate, granulated slag, tailings, or other acid-generating materials from historic mining and ore beneficiation processes in the Copper Basin;

3. Criteria for other constituents are those required for General Use Ground Water as of November 3, 2004;

4. The continued use of institutional controls to avoid the potential for human contact with this ground water; and

(Rule 1200-04-03-.11, continued)

5. Institute a monitoring program, acceptable to TDEC, that monitors the water level in the pit and is sufficient to assure protection of human health and the environment.

Authority: *T.C.A. §§4-5-201 et seq., and 69-3-105.* ***Administrative History:*** *Original rule filed June 28, 1999; effective September 11, 1999. Amendment filed July 13, 1999; effective October 11, 1999. Repeal and new rule filed March 24, 2008; effective June 7, 2008.*

1200-04-03-.12 REPORTING REQUIREMENT.

(1) The board acknowledges that the General Assembly has given it the authority to promulgate rules for the prevention, control, and abatement of pollution in T.C.A. § 69-3-105(b). The board finds a necessary first step toward controlling and abating pollution is becoming aware of the situation. This is especially needed in the case of ground water, as it is not in plain view as surface water often is. Furthermore, once the department has documents relating to an instance of pollution, they are generally going to be open to the public. Making the public aware of pollution both increases the likelihood that the pollution will be abated and that the public will be able to take appropriate action to reduce harmful exposure. These findings, in addition to the provision of T.C.A. § 69-3-114(b) making it unlawful to refuse to furnish any information required by the Board, are the basis for the requirement stated in paragraph (2) of this rule.

(2) Owners or prospective purchasers of property used for commercial or industrial purposes who test the ground water or perched water on the property shall notify the commissioner of any contamination of such water if it is currently used as potable water and it exceeds general use criteria or if an environmental professional engaged by such owner or prospective purchaser reasonably concludes that it poses some other substantial risk to health or safety, including but not limited to, situations in which vapors released from the water are causing an explosion hazard or a current inhalation hazard with a hazard quotient of greater than 1 or a cancer risk of greater than 1 x 10-6 .

(3) Routine sampling and reporting of ground water or perched water data required by an agency of the Department as part of a regulatory program obligation shall constitute reporting for the purposes of this rule.

Authority*: T.C.A. §§4-5-201 et seq., and 69-3-105.* ***Authority****: Original rule filed March 24, 2008; effective June 7, 2008.*

RULES
OF
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER POLLUTION CONTROL

CHAPTER 1200-4-4
USE CLASSIFICATIONS FOR SURFACE WATERS

TABLE OF CONTENTS

Abbreviations for Designated Uses:

Domestic Water Supply	DWS
Industrial Water Supply	IWS
Fish and Aquatic Life	FAL
Trout Stream	TS
Naturally Reproducing Trout Stream	NRTS
Recreation	REC
Livestock Watering and Wildlife	LWW
Irrigation	IRR
Navigation	NAV

1200-4-4-.01 MEMPHIS AREA BASIN.

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Mississippi River	Mississippi-Tennessee State Line (Mile 714.0) to Upstream End of Loosahatchie Bar (Mile 741.0)		X	X	X	X	X	X		
McKellar Lake	Mouth on Mississippi R. to Origin		X	X	X			X		
Nonconnah Creek	Mile 0.0 to Origin			X	X	X	X			
Wolf River	Mile 0.0 to 6.7 (L & N Railroad Bridge)			X	X	X	X			
Cypress Creek	Mile 0.0 to origin			X	X	X	X			
Wolf River	Mile 6.7 to Miss.-TN State Line (Mile 77.0)		X	X	X	X	X	X		
Loosahatchie River	Mile 0.0. to 20.9 (Austin Peay Hwy Bridge)			X	X	X	X			
Big Creek	Mile 0.0 to Origin			X	X	X	X			
North Fork Cree	Mile 0.0 to Origin			X	X	X	X			
Crooked Creek	Mile 0.0 to Origin			X	X	X	X			
Trib. to Mile 3.0 of Crooked Creek	Mile 0.0 to Origin			X	X	X	X			
Loosahatchie River	Mile 20.9 (Austin Peay Hwy) to 30.7			X	X	X	X			
Clear Creek Canal	Mile 0.0 to Origin at Mile 2.6 (Confluence of Hall Creek and Cypress Creek Canal)			X	X	X	X			
Cypress Creek Canal	Mile 0.0 to Origin			X	X	X	X			
Loosahatchie River	Mile 30.7 to 45.5			X	X	X	X			
Middle Beaver Creek	Mile 0.0 to Origin			X	X	X	X			
West Beaver Creek	Mile 0.0 to Origin			X	X	X	X			
East Beaver Creek	Mile 0.0 to Origin			X	X	X	X			
Little Cypress Creek Canal	Mile 0.0 to Origin			X	X	X	X			
Loosahatchie River	Mile 45.5 to 50.2			X	X	X	X			
Davis Creek	Mile 0.0 to Origin			X	X	X	X			
Town Branch	Mile 0.0 to Origin			X	X	X	X			
Loosahatchie River	Mile 50.2 to Origin			X	X	X	X			
All other surface waters named and unnamed in the Memphis Area Basin, with the exception of wet weather conveyances, which have not been specifically noted shall be classified				X	X	X	X			

Authority: *T.C.A. §§4-5-201, et seq. and 69-3-105.* ***Administrative History:*** *Original rule certified June 7, 1974. Amendment filed December 1, 1975; effective December 30, 1975. Amendment filed November 25, 1977; effective December 26, 1977. Amendment filed March 30, 1983; effective April 29, 1983. Amendment filed July 16, 1991; effective August 30, 1991. Amendment filed May 16, 1995; effective July 30, 1995. Amendment filed July 13, 1999; effective October 11, 1999. Amendment filed October 24, 2003; effective January 7, 2004. Amendment filed July 23, 2007; effective October 6, 2007.*

1200-4-4-.02 HATCHIE RIVER BASIN.

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Mississippi River	Mile 741.0 to 820.0	X	X	X	X	X	X	X		
Hatchie River	Mile 0.0 to Mile 129.0	X	X	X	X	X	X			
Town Creek	Mile 0.0 to Origin			X	X	X	X			
Cane Creek	Mile 0.0 to Origin			X	X	X	X			
Alston Creek	Mile 0.0 to Origin			X	X	X	X			
Big Muddy Canal	Mile 0.0 to Origin			X	X	X	X			
Unnamed Trib. to Mile 3.1 of Big Muddy Canal	Mile 0.0 to Origin			X	X	X	X			
Sugar Creek	Mile 0.0 to Origin			X	X	X	X			
Mill Creek	Mile 0.0 to 2.0			X	X	X	X			
Pugh Creek South	Mile 0.0 to Origin			X	X	X	X			
Mill Creek	Mile 2.0 to Origin			X	X	X	X			
Hatchie River	Mile 129.0 to Mile 131.0		X	X	X	X	X			
Hatchie River	Mile 131.0 to Miss-Tenn State Line (Mile 188.5)	X	X	X	X	X	X			
Spring Creek	Mile 0.0 to Origin			X	X	X	X			
Cypress Creek	Mile 0.0 to Origin			X	X	X	X			
Tuscumbia River	Mile 0.0 to Miss-Tenn State Line (Mile 10.5)	X		X	X	X	X			
Cypress Creek	Mile 0.0 to 14.2			X	X	X	X			
Cypress Creek	Mile 14.2 to 15.2			X	X	X	X			
Cypress Creek	Mile 15.2 to Origin			X	X	X	X			
All other surface waters named and unnamed in the Hatchie Basin, with the exception of wet weather conveyances, which have not been specifically noted shall be classified				X	X	X	X			

Authority: *T.C.A. §§4-5-201, et seq. and 69-3-105.* ***Administrative History:*** *Original rule filed July 13, 1999; effective October 11, 1999. Amendment filed October 24, 2003; effective January 7, 2004. Amendment filed July 23, 2007; effective October 6, 2007.*

1200-4-4-.03 OBION-FORKED DEER BASIN.

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Mississippi River	Mile 820.0 to Mile 905.0 (Kentucky State Line)	X	X	X	X	X	X	X		
Obion River	Mile 0.0 to Confluence of North and			X	X	X	X			
	South Fork Obion River (Mile 71.8)			X	X	X	X			
Running Reelfoot Bayou	Mile 0.0 to Reelfoot Lake Spillway			X	X	X	X			
Reelfoot Lake	Entirety			X	X	X	X			
Biffle Creek	Mile 0.0 to Origin			X	X	X	X			
Reeds Creek	Mile 0.0 to Origin			X	X	X	X			
Cool Springs Branch	Mile 0.0 to Origin			X	X	X	X			
North Fork Obion River	Mile 0.0 to Origin			X	X	X	X			
Hoosier Creek	Mile 0.0 to Origin			X	X	X	X			
First Creek	Mile 0.0 to Origin			X	X	X	X			
Grove Creek	Mile 0.0 to Origin			X	X	X	X			
Harris Fork Creek	Mile 0.0 to Kentucky-Tennessee State Line			X	X	X	X			
Walnut Fork Creek	Mile 0.0 to Origin			X	X	X	X			
Trib. to Mile 3.8 of Walnut Fork Creek	Mile 0.0 to Origin			X	X	X	X			
South Fork Obion River	Mile 0.0 to 38.9 (Formed at Confluence of Beaver Creek and Crooked Creek)			X	X	X	X			
Mud Creek	Mile 0.0 to Origin			X	X	X	X			
Cane Creek	Mile 0.0 to Origin			X	X	X	X			
Trib. to Mile 9.8 of Cane Creek	Mile 0.0 to Origin			X	X	X	X			
Trib. to Mile 11.0 of Cane Creek	Mile 0.0 to Origin			X	X	X	X			
Brassfield Creek	Mile 0.0 to Origin			X	X	X	X			
Trib. to Mile 0.5 of Brassfield Creek	Mile 0.0 to Origin			X	X	X	X			
Rutherford Fork	Mile 0.0 to Origin			X	X	X	X			
Carroll Creek	Mile 0.0 to Origin			X	X	X	X			
Wolf Creek	Mile 0.0 to Origin			X	X	X	X			
E. Fork Wolf Creek	Mile 0.0 to Origin			X	X	X	X			
Trib. to Mile 27.7 of Rutherford Fork	Mile 0.0 to Origin			X	X	X	X			
Middle Fork Obion River	Mile 0.0 to Origin			X	X	X	X			
Buckor Ditch	Mile 0.0 to Origin			X	X	X	X			
Spring Creek	Mile 0.0 to Origin			X	X	X	X			
Pritchett Branch	Mile 0.0 to Origin			X	X	X	X			
Bradford Creek	Mile 0.0 to Origin			X	X	X	X			
Reedy Creek	Mile 0.0 to Origin			X	X	X	X			
Lick Creek	Mile 0.0 to Origin			X	X	X	X			
Clear Creek	Mile 0.0 to Origin			X	X	X	X			
Beaver Creek	Mile 0.0 to Origin		X	X	X	X	X			

(Rule 1200-4-4-.03, continued)

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Crooked Creek	Mile 0.0 to Origin		X	X	X	X	X			
Guins Creek	Mile 0.0 to Origin		X	X	X	X	X			
Trib. to Mile 9.7 of Guins Creek	Mile 0.0 to Origin			X	X	X	X			
Forked Deer River	Mouth at Obion River Mile 3.3 to Mile 20.3 at Confluence of North and South Fork			X	X	X	X	X		
South Fork Forked Deer	Mile 0.0 to 48.8			X	X	X	X	X		
Nixon Creek	Mile 0.0 to Origin			X	X	X	X			
Little Nixon Creek	Mile 0.0 to Origin			X	X	X	X			
Old Channel Forked Deer-Trib. at Mile 35.8	Mile 0.0 to Origin			X	X	X	X			
South Fork Forked Deer River	Mile 48.8 to 70.3			X	X	X	X	X		
North Fork of South Fork Forked Deer River	Mile 0.0 to Origin			X	X	X	X			
Johnson Creek	Mile 0.0 to Origin			X	X	X	X			
Anderson Branch	Mile 0.0 to Origin			X	X	X	X			
Turkey Creek	Mile 0.0 to 1.2			X	X	X	X			
Trib. to Mile 1.0 of Turkey Creek	Mile 0.0 to Origin			X	X	X	X			
Turkey Creek	Mile 1.2 to Origin			X	X	X	X			
South Fork Forked Deer River	Mile 70.3 to Origin			X	X	X	X			
Sugar Creek	Mile 0.0 to Origin			X	X	X	X			
North Fork Forked Deer River	Mile 0.0 to 5.8			X	X	X	X	X		
North Fork Forked Deer River	Mile 5.8 to 33.9			X	X	X	X			
Middle Fork Forked Deer River	Mile 0.0 to Origin			X	X	X	X			
Mosquito Creek	Mile 0.0 to Origin			X	X	X	X			
Moize Creek	Mile 0.0 to Origin			X	X	X	X			
Dyer Creek	Mile 0.0 to Origin			X	X	X	X			
North Mud Creek	Mile 0.0 to Origin			X	X	X	X			
Cow Creek	Mile 0.0 to Origin			X	X	X	X			
Sand Creek	Mile 0.0 to Origin			X	X	X	X			
North Fork Forked Deer River	Mile 33.9 to Origin			X	X	X	X			
Trib. to Mile 857.5 of Mississippi River	Mile 0.0 to Origin			X	X	X	X			
Harris Ditch	Mile 0.0 to Origin			X	X	X	X			
All other surface waters named and unnamed in the Obion-Forked Deer Basin, with the exception of wet weather conveyances, which have not been specifically noted shall be classified.				X	X	X	X			

Authority: *T.C.A. §§4-5-201, et seq. and 69-3-105.* ***Administrative History:*** *Original rule filed July 13, 1999; effective October 11, 1999. Amendment filed October 24, 2003; effective January 7, 2004. Amendment filed July 23, 2007; effective October 6, 2007.*

1200-4-4-.04 TENNESSEE RIVER BASIN - WESTERN VALLEY.

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Tennessee River	Mile 49.1 (Tenn-Ky Line) to 215.1 (Tn-Miss Line)	X	X	X	X	X	X	X		
Big Sandy River	Mile 0.0 to 15.1		X	X	X	X	X	X		
Big Sandy River	Mile 15.1 to Origin		X	X	X	X	X			
West Sandy Creek	Mile 0.0 to Origin			X	X	X	X			
Holly Fork Creek	Mile 0.0 to Origin			X	X	X	X			
Bailey Fork Creek	Mile 0.0 to Origin			X	X	X	X			
Town Creek	Mile 0.0 to Origin			X	X	X	X			
Big Beaver Creek	Mile 0.0 to Origin			X	X	X	X			
Little Beaver Creek	Mile 0.0 to Origin			X	X	X	X			
Hurricane Creek	Mile 0.0 to Origin			X	X	X	X		X	
S. Fk Hurricane Cr	Mile 0.0 to Origin			X	X	X	X			
Beaverdam Creek	First bridge above mouth to origin.			X	X	X	X		X	
Cane Creek	Mile 0.0 to Origin			X	X	X	X			
Trace Creek	Mile 0.0 to Origin			X	X	X	X			
Cypress Creek	Mile 0.0 to Origin			X	X	X	X			
Cane Creek	Mile 0.0 to Origin			X	X	X	X			
North Indian Creek	Mile 0.0 to Origin			X	X	X	X			
Birdsong Creek	Mile 0.0 to Origin			X	X	X	X			
Wolf Creek	Mile 0.0 to Origin			X	X	X	X			
Eagle Creek	Mile 0.0 to Origin			X	X	X	X			
Morgan Creek	Mile 0.0 to Origin			X	X	X	X			
Beech River	Mile 0.0 to 7.2	X	X	X	X	X	X	X		
Beech River	Mile 7.2 to 27.4	X	X	X	X	X	X			
Beech River	Mile 27.4 to 30.4		X	X	X	X	X			
Beech River	Mile 30.4 to Origin	X	X	X	X	X	X			
Rushing Creek	Mile 0.0 to Origin			X	X	X	X			
Harmon Creek	Mile 0.0 to Origin			X	X	X	X			
Bear Creek	Mile 0.0 to Origin			X	X	X	X			
Wolf Creek	Mile 0.0 to Origin			X	X	X	X			
Doe Creek	Mile 0.0 to Origin			X	X	X	X			
East Prong Doe Creek	Mile 0.0 to Origin			X	X	X	X			
White Oak Creek	Mile 0.0 to Origin			X	X	X	X			
Little Hurricane Creek	Mile 0.0 to Origin			X	X	X	X			
Horse Creek	Mile 0.0 to Origin			X	X	X	X			
Beason Creek	Mile 0.0 to Origin			X	X	X	X			
South Fork Beason Creek	Mile 0.0 to Origin			X	X	X	X			
Dollar Creek	Mile 0.0 to Origin			X	X	X	X			

(Rule 1200-4-4-.04, continued)

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Beech Creek	Mile 0.0 to Origin			X	X	X	X			
Leatherwood Creek	First bridge to origin			X	X	X	X		X	
E. Fork Leatherwood Cr	Mile 0.0 to second tributary			X	X	X	X		X	
N. Fork Leatherwood Cr	Mile 0.0 to second tributary			X	X	X	X		X	
Town Branch	Mile 0.0 to Origin			X	X	X	X			
Chambers Creek	Mile 0.0 to Origin			X	X	X	X			
All other surface waters named and unnamed in the Western Valley Tennessee River Basin, with the exception of wet weather conveyances,which have not been specifically noted shall be classified				X	X	X	X			

Authority: *T.C.A. §§4-5-201, et seq. and 69-3-105.* ***Administrative History:*** *Original rule filed July 13, 1999; effective October 11, 1999. Amendment filed October 24, 2003; effective January 7, 2004. Amendment filed July 23, 2007; effective October 6, 2007.*

1200-4-4-.05 DUCK RIVER BASIN.

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Duck River	Mile 0.0 to 67.0	X	X	X	X	X	X			
Blue Creek	Mile 0.0 to 14.0	X	X	X	X	X	X			
Blue Creek	Mile 14.0 to 16.2		X	X	X	X	X			
Blue Creek	Mile 16.2 to Origin			X	X	X	X			
Buffalo River	Mile 0.0 to 24.0	X	X	X	X	X	X			
Cane Creek	Hickman Co. line to Lewis Co. line			X	X	X	X		X	
Buffalo River	Mile 24.0 to 26.0		X	X	X	X	X			
Buffalo River	Mile 26.0 to 38.0	X	X	X	X	X	X			
Hurricane Creek	Mile 0.0 to Origin			X	X	X	X			X
Sinking Creek	Mile 0.0 to Origin			X	X	X	X		X	
Buffalo River	Mile 38.0 to 41.1		X	X	X	X	X			
Buffalo River	Mile 41.1 to Origin	X	X	X	X	X	X			
Green River	Mile 0.0 to 9.0	X	X	X	X	X	X			
Green River	Mile 9.0 to 11.7		X	X	X	X	X			
Green River	Mile 11.7 to Origin	X	X	X	X	X	X			
Rockhouse Creek	Mile 0.0 to 6.0	X	X	X	X	X	X			
Rockhouse Creek	Mile 6.0 to 9.5		X	X	X	X	X			
Rockhouse Creek	Mile 9.5 to Origin	X	X	X	X	X	X			
Little Buffalo River	Mile 0.0 to Origin			X	X	X	X		X	
Hurricane Creek	Mile 0.0 to Origin			X	X	X	X		X	
Beaverdam Creek	Highway 100 to Sulfur Fork Cr			X	X	X	X			X
Sulfur Fork Creek	Mile 0.0 to Origin			X	X	X	X			X
Piney River	Mile 0.0 to Origin	X	X	X	X	X	X			X
Mill Creek	Mile 0.0 to Origin	X		X	X	X	X		X	
Little Spring Creek	Mile 0.0 to Origin			X	X	X	X		X	
Big Spring Creek	Mile 0.0 to Origin			X	X	X	X			X

(Rule 1200-4-4-.05, continued)

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Garner Creek	Mile 0.0 to Origin			X	X	X	X		X	
Bear Creek	Mile 0.0 to Origin			X	X	X	X			X
East Piney River	Mile 0.0 to 4.0	X	X	X	X	X	X			
East Piney River	Mile 4.0 to 6.1		X	X	X	X	X			
East Piney River	Mile 6.1 to Origin	X	X	X	X	X	X			
Defeated Camp Creek	Mile 0.0 to 4.4		X	X	X	X	X			
Defeated Camp Creek	Mile 4.4 to Origin			X	X	X	X			
Defeated Branch	Mile 0.0 to Origin			X	X	X	X			
Duck River	Mile 67.0 to 71.5		X	X	X	X	X			
Duck River	Mile 71.5 to 123.2	X	X	X	X	X	X			
Big Bigby Creek	Mile 0.0 to Origin	X	X	X	X	X	X			
Sugar Fork	Mile 0.0 to 1.9	X	X	X	X	X	X			
Sugar Fork	Mile 1.9 to 2.9		X	X	X	X	X			
Sugar Creek	Mile 0.0 to 0.7		X	X	X	X	X			
Sugar Creek	Mile 0.7 to Origin	X	X	X	X	X	X			
Quality Creek	Mile 0.0 to Origin	X	X	X	X	X	X			
Big Swan Creek	Mile 0.0 to Origin	X	X	X	X	X	X			
Little Swan Creek	Mile 0.0 to Origin			X	X	X	X		X	
Cathey's Creek	Mile 0.0 to Origin	X	X	X	X	X	X			
Duck River	Mile 123.2 to 127.2		X	X	X	X	X			
Little Bigby Creek	Mile 0.0 to Origin	X	X	X	X	X	X			
Rutherford Creek	Mile 0.0 to Origin	X	X	X	X	X	X			
Duck River	Mile 127.2 to 217.0	X	X	X	X	X	X			
Big Rock Creek	Mile 0.0 to 14.0	X	X	X	X	X	X			
Big Rock Creek	Mile 14.0 to 16.9		X	X	X	X	X			
Big Rock Creek	Mile 16.9 to Origin	X	X	X	X	X	X			
Duck River	Mile 217.0 to 221.3		X	X	X	X	X			
Duck River	Mile 221.3 to 244.0	X	X	X	X	X	X			
Duck River	Mile 244.0 to 248.6 (Normandy Dam)	X		X	X	X	X		X	
Duck River	Mile 248.6 to 266.5	X	X	X	X	X	X			
Garrison Fork Creek	Mile 0.0 to 2.7	X	X	X	X	X	X			
Garrison Fork Creek	Mile 2.7 to 3.3		X	X	X	X	X			
Garrison Fork Creek	Mile 3.3 to Origin	X	X	X	X	X	X			
Duck River	Mile 266.5 to 268.5		X	X	X	X	X			
Duck River	Mile 268.5 to Origin	X	X	X	X	X	X			
Little Duck River	Mile 0.0 to Origin	X	X	X	X	X	X			
All other surface waters named and unnamed in the Duck River Basin, with the exception of wet weather conveyances, which have not been specifically noted shall be classified				X	X	X	X			

Authority: *T.C.A. §§4-5-201, et seq. and 69-3-105.* ***Administrative History:*** *Original rule filed July 13, 1999; effective October 11, 1999. Amendment filed October 24, 2003; effective January 7, 2004. Amendment filed July 23, 2007; effective October 6, 2007.*

1200-4-4-.06 ELK RIVER BASIN (INCLUDING SHOAL CREEK).

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Shoal Creek	Tenn-Ala State Line (Mile 20.6) to Mile 56.9	X	X	X	X	X	X			
Clack Branch	Mile 0.0 to Origin		X	X	X	X	X			
Loretto Branch	Mile 0.0 to Origin		X	X	X	X	X			
Little Shoal Creek	Mile 0.0 to Origin		X	X	X	X	X			
Shoal Creek	Mile 56.9 to Origin (Jct of B. Dry Branch & Beeler Fk)		X	X	X	X	X		X	
Factory Creek	Mile 0.0 to Origin	X		X	X	X	X		X	
Chisholm Creek	Mile 0.0 to Origin			X	X	X	X		X	
Crowson Creek	Mile 0.0 to Origin			X	X	X	X			X
Elk River	Tenn-Ala State Line (Mile 33.6) to 36.3	X	X	X	X	X	X	X		
Elk River	Mile 36.3 to 90.5	X	X	X	X	X	X			
Richland Creek	Mile 0.0 to 20.0		X	X	X	X	X			
Buchannan Creek	Mile 0.0 to Origin			X	X	X	X			
Richland Creek	Mile 20.0 to 23.3			X	X		X			
Richland Creek	Mile 23.3 to Origin	X	X	X	X	X	X			
Pigeon Roost Creek	Mile 0.0 to Origin		X	X	X	X	X			
Robertson Fork	Mile 0.0 to Origin		X	X	X	X	X			
Town Creek	Mile 0.0 to Origin		X	X	X	X	X			
Holland Creek	Mile 0.0 to Origin		X	X	X	X	X			
Elk River	Mile 90.5 to 133.3 (Tims Ford Dam)	X	X	X	X	X	X		X	
Mulberry Creek	Mile 0.0 to Origin		X	X	X	X	X			
East Fork Mulberry Cr.	Mile 0.0 to 11.1		X	X	X	X	X			
East Fork Mulberry Cr.	Mile 11.1 to Origin	X	X	X	X	X	X			
Spring Branch	Mile 0.0 to Origin	X	X	X	X	X	X			
Elk River	Mile 133.3 to Origin	X	X	X	X	X	X			
Beans Creek	Mile 0.0 to Origin		X	X	X	X	X			
Factory Branch	Mile 0.0 to Origin		X	X	X	X	X			
Mathias Branch	Mile 0.0 to Origin		X	X	X	X	X			
Hurricane Creek	Mile 0.0 to Origin		X	X	X	X	X			
Boiling Fork Creek	Mile 0.0 to Origin	X	X	X	X	X	X			
Wagner Creek	Mile 0.0 to Origin	X	X	X	X	X	X			
Rock Creek	Mile 0.0 to Origin		X	X	X	X	X			
Rollins Creek	Mile 0.0 to 2.5	X	X	X	X	X	X			
Rollins Creek	Mile 2.5 to Origin			X	X	X	X			
Mud Creek	Mile 0.0 to Origin		X	X	X	X	X			
Caldwell Creek	Mile 0.0 to Origin		X	X	X	X	X			
All other surface waters named and unnamed in the Elk River Basin, with the exception of wet weather conveyances, which have not been specifically noted shall be classified				X	X	X	X			

Authority: *T.C.A. §§4-5-201, et seq. and 69-3-105.* ***Administrative History:*** *Original rule filed July 13, 1999; effective October 11, 1999. Amendment filed October 24, 2003; effective January 7, 2004. Amendment filed July 23, 2007; effective October 6, 2007.*

1200-4-4-.07 LOWER TENNESSEE RIVER BASIN (INCLUDING CONASAUGA RIVER).

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Tennessee River	Tenn-Ala State Line (Mile 416.5) to the POT Light (Mile 448.0)	X	X	X	X	X	X	X		
Unnamed Tributary	At Tenn. River Mile 417.5; Mile 0.0 to Origin			X	X	X	X			
Battle Creek	Mile 0.0 to 17.3 (Martin Spring)	X	X	X	X	X	X		X	
Swedens Creek	Mile 0.0 to Origin			X	X	X	X		X	
Big Fiery Gizzard	Mile 0.0 to 4.5			X	X	X	X			
Little Fiery Gizzard	Mile 0.0 to Origin			X	X	X	X			
Unnamed Trib.	At Little Fiery Gizzard Mile 0.6; Mile 0.0 to Origin			X	X	X	X			
Big Fiery Gizzard	Mile 4.5 to 5.5			X	X	X	X		X	
Big Fiery Gizzard	Mile 5.5 to Origin			X	X	X	X			
Battle Creek	Mile 17.3 to Origin	X	X	X	X	X	X			
Sequatchie River	Mile 0.0 to 3.5	X	X	X	X	X	X	X		
Sequatchie River	Mile 3.5 to 41.0	X	X	X	X	X	X			
Little Sequatchie River	Mile 0.0 to confluence of Sawmill Creek			X	X	X	X			
Little Sequatchie River	Confluence of Sawmill Creek to confluence of Grays Creek		X	X	X	X		X		
Little Sequatchie River	Confluence of Grays Creek to Origin			X	X	X	X			
Pocket Creek	Mile 0.0 to Origin			X	X	X	X		X	
Clifty Creek	Mile 0.0 to Origin			X	X	X	X			
Sewanee Creek	Mile 0.0 to 4.0			X	X	X	X			
Sewanee Creek	Mile 4.0 to Origin	X		X	X	X	X			
Holywater Creek	Mile 0.0 to Origin	X		X	X	X	X			
Scott Creek	Mile 0.0 to Origin	X		X	X	X	X			
Coops Creek	Mile 0.0 to Origin			X	X	X	X			
Sequatchie River	Mile 41.0 to 43.9			X	X	X	X			
Sequatchie River	Mile 43.9 to 74.0	X	X	X	X	X	X			
Sequatchie River	Mile 74.0 to 78.4			X	X	X	X			
Sequatchie River	Mile 78.4 to 105.9	X	X	X	X	X	X			
Sequatchie River	Mile 105.9 to 108.9	X	X	X	X	X	X		X	
Sequatchie River	108.8 to Origin			X	X	X	X			
Tennessee River	Mile 448.0 to 460.6 (Chattanooga Creek)		X	X	X	X	X	X		
Shoal Creek	Mile 0.0 to Origin			X	X	X	X			
Unnamed Tributary	At Tenn. River Mile 458.7; Mile 0.0 to Origin			X	X	X	X			
Lookout Creek	Mile 0.0 to Georgia-Tenn State Line		X	X	X	X	X			
Black Creek	Mile 0.0 to Origin			X	X	X	X			
Chattanooga Creek	Mile 0.0 to Georgia-Tenn State Line		X	X	X	X	X			
Tennessee River	Mile 460.6 to 499.4 (Hiwassee)	X	X	X	X	X	X	X		
Citico Creek	Mile 0.0 to Origin			X	X	X	X			
South Chickamauga Creek	Mile 0.0 to Georgia-Tenn State Line		X	X	X	X	X			
Friar Branch	Mile 0.0 to Origin			X	X	X	X			
West Chickamauga Creek	Mile 0.0 to Georgia-Tenn State Line		X	X	X	X	X			
Spring Creek	Mile 0.0 to Georgia-Tenn State Line		X	X	X	X	X			
Mackey Branch	Mile 0.0 to Origin			X	X	X	X			

(Rule 1200-4-4-.08, continued)

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Ryall Springs Br.	Mile 0.0 to Origin			X	X	X	X			
Unnamed Tributary	At Tenn. River Mile 469.2; Mile 0.0 to Origin			X	X	X	X			
North Chickamauga Creek	Mile 0.0 to 13.2			X	X	X	X			
Unnamed Tributary	At N. Chickamauga Creek Mile 0.7; Mile 0.0 to Origin			X	X	X	X			
North Chickamauga Creek	Mile 13.2 to 15.0			X	X	X	X		X	
North Chickamauga Creek	Mile 15.0 to Origin			X	X	X	X			
Wolftever Creek	Mile 0.0 to Origin			X	X	X	X			
Sale Creek	Mile 0.0 to Origin			X	X	X	X			
Roaring Creek	Mile 0.0 to Origin			X	X	X	X			
Brush Creek	Mile 0.0 to Origin			X	X	X	X			
Hiwassee River	Mile 0.0 to 23.9	X	X	X	X	X	X	X		
Candies Creek	Mile 0.0 to Origin			X	X	X	X			
South Mouse Creek	Mile 0.0 to Origin			X	X	X	X			
Chatata Creek	Mile 0.0 to Origin			X	X	X	X			
Little Chatata Cr.	Mile 0.0 to Origin			X	X	X	X			
Chestuee Creek	Mile 0.0 to Origin			X	X	X	X			
Middle Creek	Mile 0.0 to 1.9			X	X	X	X			
Middle Creek	Mile 1.9 to Origin	X		X	X	X	X			
Ocoee River	Mile 0.0 to Benton Station Bridge	X	X	X	X	X	X		X	
Ocoee River	Benton Station Bridge to mile 17.0	X	X	X	X	X	X			
Sylco Creek	Mile 0.0 to Origin			X	X	X	X		X	
Dutch Creek	Mile 0.0 to Origin			X	X	X	X		X	
Greasy Creek	Mile 0.0 to Origin			X	X	X	X			
Rock Creek	Mile 0.0 to Origin			X	X	X	X		X	
Clear Creek	Mile 0.0 to Origin			X	X	X	X		X	
Ocoee River	Mile 17.0 to Ocoee #3 Powerhouse		X	X	X	X	X			
Caney Creek (East Fork)	Mile 0.0 to Origin			X	X	X	X		X	
Big Creek	Mile 0.0 to Origin			X	X	X	X			X
Goforth Creek	Mile 0.0 to Origin			X	X	X	X		X	
Ocoee River	Ocoee #3 Powerhouse to Rock Creek		X	X	X	X	X		X	
Rock Creek	Mile 0.0 to Origin			X	X	X	X		X	
Ocoee River	Rock Creek to mile 37.9 (Georgia-Tenn State Line)		X	X	X	X	X			
Rough Creek	Mile 0.0 to Origin			X	X	X	X			X
West Fork Rough Creek	Mile 0.0 to Origin			X	X	X	X			X
North Potato Creek	Mile 0.0 to North Carolina-Tenn State Line)			X	X	X	X			
Burra Creek	Mile 0.0 to 1.5			X	X	X	X			
Brush Creek	Mile 0.0 to Origin	X	X	X	X	X	X			
Belcher Creek	Mile 0.0 to Origin			X	X	X	X			
Deweese Creek	Mile 0.0 to Origin	X		X	X	X	X			
Conasauga Creek	Mile 0.0 to Cog Hill Mill Dam			X	X	X	X		X	
Conasauga Creek	Cog Hill Mill Dam to Ruralville Mill			X	X	X	X			
Cane Creek	Mile 0.0 to Origin			X	X	X	X			
Unnamed Branch	Mile 0.0 to Origin			X	X	X	X			
Crockett Spring Cr	Mile 0.0 to Origin			X	X	X	X			

(Rule 1200-4-4-.08, continued)

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Conasauga Creek	Ruralville Mill to Origin			X	X	X	X		X	
Gee Creek	Mile 0.0 to Origin			X	X	X	X			X
Spring Creek	Mile 0.0 to Origin			X	X	X	X			
Yellow Creek	Mile 0.0 to Origin			X	X	X	X		X	
Big Lost Creek	Mile 0.0 to Origin			X	X	X	X		X	
Little Lost Creek	Mile 0.0 to Origin			X	X	X	X		X	
Smith Creek	Mile 0.0 to Origin			X	X	X	X		X	
Wolf Creek	Mile 0.0 to Origin			X	X	X	X			X
Turtletown Creek	Mile 0.0 to N. Carolina Line			X	X	X	X		X	
Brushy Creek	Mile 0.0 to N. Carolina Line			X	X	X	X		X	
Coker Creek	Joe Brown Highway to Origin			X	X	X	X		X	
Hiwassee River	Mile 23.9 to 34.4	X	X	X	X	X	X	X		
North Mouse Creek	Mile 0.0 to 10.0	X	X	X	X	X	X			
Spring Creek	Mile 0.0 to 18.7		X	X	X	X	X			
Spring Creek	Mile 18.7 to Origin			X	X	X	X			
Dry Valley Creek	Mile 0.0 to Origin			X	X	X	X			
North Mouse Creek	Mile 10.0 to 30.1		X	X	X	X	X			
Little North Mouse Cr.	Mile 0.0 to 4.1			X	X	X	X			
Little North Mouse Cr.	Mile 4.1 to Origin			X	X	X	X			
North Mouse Creek	Mile 30.1 to Origin			X	X	X	X			
Oostanaula Creek	Mile 0.0 to 26.0	X	X	X	X	X	X			
Oostanaula Creek	Mile 26.0 to 28.0		X	X	X	X	X			
Oostanaula Creek	Mile 28.0 to 33.8		X	X	X	X	X			
Oostanaula Creek	Mile 33.8 to 37.5	X	X	X	X	X	X			
Oostanaula Creek	Mile 37.5 to Origin			X	X	X	X			
Hiwassee River	Mile 34.4 to 64.9 (North Carolina Line)	X	X	X	X	X	X		X	
All other surface waters named and unnamed in the Lower Tennessee River Basin, with the exception of wet weather conveyances, which have not been specifically noted shall be classified				X	X	X	X			

Authority: *T.C.A. §§4-5-201, et seq. and 69-3-105.* ***Administrative History:*** *Original rule filed July 13, 1999; effective October 11, 1999. Amendment filed October 24, 2003; effective January 7, 2004. Amendment filed July 23, 2007; effective October 6, 2007.*

1200-4-4-.08 UPPER TENNESSEE RIVER BASIN.

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Tennessee River	Mile 499.4 (Hiwassee) to 567.8 (Clinch)	X	X	X	X	X	X	X		
Richland Creek	Mile 0.0 to Origin		X	X	X	X	X			
Little Richland Creek	Mile 0.0 to Origin		X	X	X	X	X			
Broyles Branch	Mile 0.0 to Origin		X	X	X	X	X			
Piney River	Mile 0.0 to 5.5		X	X	X	X	X	X		
Piney River	Mile 5.5 to 6.5 (U.S. Hwy. 27 Bridge)	X	X	X	X	X	X			
Piney River	Mile 6.5 to Origin		X	X	X	X	X			
Town Creek	Mile 0.0 to Origin		X	X	X	X	X			
Whites Creek	Mile 0.0 to 5.1			X	X	X	X	X		
Whites Creek	Mile 5.1 to Origin			X	X	X	X			
Black Creek	Mile 0.0 to Origin			X	X	X	X			
Caney Creek	Mile 0.0 to Origin			X	X	X	X			
Post Oak Creek	Mile 0.0 to Origin			X	X	X	X			
Cardiff Creek	Mile 0.0 to Origin			X	X	X	X			
Clear Creek	Mile 0.0 to 3.0			X	X	X	X		X	
Tennessee River	Mile 567.8 to 601.1	X	X	X	X	X	X	X		
Martin Branch	Mile 0.0 to Origin			X	X	X	X			
Stamp Creek	Mile 0.0 to Origin			X	X	X	X			
Greenbriar Branch	Mile 0.0 to Origin			X	X	X	X			
Hines Creek	Mile 0.0 to Origin			X	X	X	X			
Sweetwater Creek	Mile 0.0 to 9.4	X	X	X	X	X	X			
Bacon Creek	Mile 0.0 to Origin			X	X	X	X			
Sweetwater Creek	Mile 9.4 to 19.0			X	X	X	X			
Sweetwater Creek	Mile 19.0 to 21.0	X		X	X	X	X			
Sweetwater Creek	Mile 21.0 to Origin	X	X	X	X	X	X			
Unnamed Spring Branch	Mile 0.0 to Origin			X	X	X	X			
Little Tennessee River	Mile 0.0 to 19.0	X	X	X	X	X	X	X		
Fork Creek	Mile 0.0 to Origin			X	X	X	X			
Unnamed Tributary	Mile 0.0 to Origin			X	X	X	X			
Bat Creek	Mile 0.0 to Origin			X	X	X	X			
Tellico River	Mile 0.0 to 5.0	X	X	X	X	X	X	X		
Tellico River	Mile 5.0 to 28.0	X	X	X	X	X	X			
Ballplay Creek	Upper 7 miles			X	X	X	X		X	
Cane Creek	Mile 0.0 to Origin			X	X	X	X		X	
Tellico River	Mile 28.0 to 41.0	X		X	X	X	X		X	
Wildcat Creek	Mile 0.0 to Origin			X	X	X	X		X	
Turkey Creek	Mile 0.0 to Origin			X	X	X	X		X	
Bald River	Mile 0.0 to Origin			X	X	X	X			X

(Rule 1200-4-4-.08, continued)

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Kirkland Creek	Mile 0.0 to Origin			X	X	X	X			X
Henderson Creek	Mile 0.0 to Origin			X	X	X	X			X
Barrett Branch	Mile 0.0 to Origin			X	X	X	X			X
Service Branch	Mile 0.0 to Origin			X	X	X	X			X
Brookshire Branch	Mile 0.0 to Origin			X	X	X	X			X
North River	Mile 0.0 to Origin			X	X	X	X			X
Long Branch	Mile 0.0 to Origin			X	X	X	X		X	
Hemlock Branch	Mile 0.0 to Origin			X	X	X	X		X	
McNabb Creek	Mile 0.0 to Origin			X	X	X	X			X
Laurel Branch	Mile 0.0 to Origin			X	X	X	X			X
Big Cove Branch	Mile 0.0 to Origin			X	X	X	X			X
Round Mountain Br	Mile 0.0 to Origin			X	X	X	X			X
Service Tree Br	Mile 0.0 to Origin			X	X	X	X			X
Sugar Cove Br	Mile 0.0 to Origin			X	X	X	X			X
Meadow Branch	Mile 0.0 to Origin			X	X	X	X			X
Roaring Br	Mile 0.0 to Origin			X	X	X	X			X
Indian Creek	Mile 0.0 to Origin			X	X	X	X			X
Panther Branch	Mile 0.0 to Origin			X	X	X	X			X
Tellico River	Mile 41.0 to 50.0 (TN - NC Line)	X	X	X	X	X	X			X
Sycamore Creek	Mile 0.0 to Origin			X	X	X	X			X
Rough Ridge Creek	Mile 0.0 to Origin			X	X	X	X			X
Little Tennessee River	Mile 19.0 to 30.0	X	X	X	X	X	X	X	X	
Citico Creek	Mile 4.5 to 16.0			X	X	X	X		X	
Jakes Creek	Mile 0.0 to 3.0			X	X	X	X			X
Slide Hollow	Mile 0.0 to 2.0			X	X	X	X		X	
Little Citico Creek	Mile 0.0 to 3.5			X	X	X	X			X
Jake Best Creek	Mile 0.0 to Origin			X	X	X	X			X
Doublecamp Creek	Mile 0.0 to Origin			X	X	X	X			X
Mill Branch	Mile 0.0 to Origin			X	X	X	X			X
Flint Branch	Mile 0.0 to Origin			X	X	X	X			X
Crowder Branch	Mile 0.0 to Origin			X	X	X	X			X
Citico Creek	Mile 16.0 to Origin			X	X	X	X			X
N. Fk Citico Creek	Mile 0.0 to Origin			X	X	X	X			X
Indian Valley Br	Mile 0.0 to Origin			X	X	X	X			X
South Fork Citico Creek	Mile 0.0 to Origin			X	X	X	X			X
Ike Camp Branch	Mile 0.0 to Origin			X	X	X	X			X
Falls Branch	Mile 0.0 to Origin			X	X	X	X			X
Cochran Creek	Mile 0.0 to mile 2.0			X	X	X	X		X	
Abrams Creek	Mile 0.0 to Origin			X	X	X	X			X
Panther Creek	Mile 0.0 to Origin			X	X	X	X			X
Mill Creek	Mile 0.0 to Origin			X	X	X	X			X
Bell Cove Branch	Mile 0.0 to Origin			X	X	X	X		X	
Kingfisher Creek	Mile 0.0 to Origin			X	X	X	X		X	
Buckshank Branch	Mile 0.0 to Origin			X	X	X	X		X	

(Rule 1200-4-4-.08, continued)

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Rabbit Creek	Mile 0.0 to Origin			X	X	X	X			X
Hannah Branch	Mile 0.0 to Origin			X	X	X	X			X
Peckerwood Br	Mile 0.0 to Origin			X	X	X	X			X
Wilson Branch	Mile 0.0 to Origin			X	X	X	X		X	
Stony Branch	Mile 0.0 to Origin			X	X	X	X		X	
Arbutus Branch	Mile 0.0 to Origin			X	X	X	X		X	
Mill Creek	Mile 0.0 to Origin			X	X	X	X			X
Forge Creek	Mile 0.0 to Origin			X	X	X	X			X
Coalen Ground Br	Mile 0.0 to Origin			X	X	X	X		X	
Bower Creek	Mile 0.0 to Origin			X	X	X	X			X
Tipton Sugar Cove	Mile 0.0 to Origin			X	X	X	X		X	
Ekanneetlee Br	Mile 0.0 to Origin			X	X	X	X			X
Tater Branch	Mile 0.0 to Origin			X	X	X	X		X	
McCaulley Branch	Mile 0.0 to Origin			X	X	X	X		X	
Rowans Branch	Mile 0.0 to Origin			X	X	X	X			X
Anthony Creek	Mile 0.0 to Origin			X	X	X	X			X
Shop Creek	Mile 0.0 to Origin			X	X	X	X			X
Tabcat Creek	Mile 0.0 to Origin			X	X	X	X			X
Parson Branch	Mile 0.0 to Origin			X	X	X	X			X
Bible Creek	Mile 0.0 to Origin			X	X	X	X			X
Slickrock Creek	Tennessee portion			X	X	X	X			X
Little Slickrock Cr	Mile 0.0 to Origin			X	X	X	X			X
Little Tennessee River	Mile 30.0 to 49.7 (TN.-N.C. Line)	X	X	X	X	X	X		X	
Morgan Branch	Mile 0.0 to Origin			X	X	X	X			
Abrams Branch	Mile 0.0 to Origin			X	X	X	X			
First Creek	Mile 0.0 to Origin	X	X	X	X	X	X			
Tennessee River	Mile 601.1 to 636.6 (Little River)	X	X	X	X	X	X	X		
Town Creek	Mile 0.0 to Origin			X	X	X	X			
Gallagher Creek	Mile 0.0 to Origin			X	X	X	X			
Turkey Creek	Mile 0.0 to Origin			X	X	X	X			
Sinking Creek #1	Mile 0.0 to Origin	X	X	X	X	X	X			
Ten Mile Creek	From Sink to Origin			X	X	X	X			
Sinking Creek #2	Mile 0.0 to Origin			X	X	X	X			
Unnamed Trib.	Mile 0.0 to Origin			X	X	X	X			
Lackey Creek	Mile 0.0 to Origin			X	X	X	X			
Unnamed Branch	Mile 0.0 to Origin			X	X	X	X			
Little River	Mile 0.0 to 33.0	X	X	X	X	X	X			
Polecat Branch	Mile 0.0 to Origin			X	X	X	X			
Stock Creek	Mile 0.0 to Origin			X	X	X	X			
McCall Branch	Mile 0.0 to Origin			X	X	X	X			
Russell's Branch	Mile 0.0 to Origin			X	X	X	X			
Pistol Creek	Mile 0.0 to Origin			X	X	X	X			
Duncan Branch	Mile 0.0 to Origin			X	X	X	X			
Culton Creek	Mile 0.0 to Origin			X	X	X	X			

(Rule 1200-4-4-.08, continued)

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Tedford Br	Mile 0.0 to Origin			X	X	X	X			
Hesse Creek	Upper 5 miles			X	X	X	X		X	
Cane Creek	Upper 2.0 miles			X	X	X	X		X	
Beard Cane Cr	Upper 1.5 miles			X	X	X	X		X	
Little River	Mile 33.0 to Origin	X		X	X	X	X			X
M. Pr. Little River	Mile 0.0 to Origin			X	X	X	X			X
W. Prong Little R.	Mile 0.0 to Origin			X	X	X	X			X
Laurel Creek	Mile 0.0 to Origin			X	X	X	X			X
Meadow Br	Mile 0.0 to Origin			X	X	X	X			X
Spruce Flats Br	Mile 0.0 to Origin			X	X	X	X			X
Sams Creek	Mile 0.0 to Origin			X	X	X	X			X
Thunderhead Pr	Mile 0.0 to Origin			X	X	X	X			X
Shut-in Cr	Mile 0.0 to Origin			X	X	X	X			X
Lynn Camp Prong	Mile 0.0 to Origin			X	X	X	X			X
Marks Creek	Mile 0.0 to Origin			X	X	X	X			X
Meigs Creek	Mile 0.0 to Origin			X	X	X	X			X
Little Greenbriar Creek	Mile 0.0 to Origin			X	X	X	X			X
Mannis Branch	Mile 0.0 to Origin			X	X	X	X			X
Blanket Creek	Mile 0.0 to Origin			X	X	X	X			X
Shields Branch	Mile 0.0 to Origin			X	X	X	X			X
Jakes Creek	Mile 0.0 to Origin			X	X	X	X			X
Newt Prong	Mile 0.0 to Origin			X	X	X	X			X
Laurel Branch	Mile 0.0 to Origin			X	X	X	X			X
Fish Camp Prong	Mile 0.0 to Origin			X	X	X	X			X
Goshen Prong	Mile 0.0 to Origin			X	X	X	X			X
Silers Prong	Mile 0.0 to Origin			X	X	X	X			X
Rich Branch	Mile 0.0 to Origin			X	X	X	X			X
Rough Creek	Mile 0.0 to Origin			X	X	X	X			X
Meigs Post Prong	Mile 0.0 to Origin			X	X	X	X			X
Grouse Creek	Mile 0.0 to Origin			X	X	X	X			X
Tennessee River	Mile 636.6 to 638.6	X	X	X	X	X	X	X		
Tennessee River	Mile 638.6 to 640.0		X	X	X	X	X	X		
Tennessee River	Mile 640.0 to 643.4	X	X	X	X	X	X	X		
Tennessee River	Mile 643.4 to 646.4		X	X	X	X	X	X		
Tennessee River	Mile 646.4 to 652.2	X	X	X	X	X	X	X		
Knob Creek	Mile 0.0 to Origin			X	X	X	X			
Flenniken Branch	Mile 0.0 to Origin			X	X	X	X			
Unnamed Branch	Mile 0.0 to Origin			X	X	X	X			
Unnamed Branch	Mile 0.0 to Origin			X	X	X	X			
Fourth Creek	Mile 0.0 to Origin			X	X	X	X			
Third Creek	Mile 0.0 to 4.9			X	X	X	X			
Third Creek	Mile 4.9 to Origin	X	X	X	X	X	X			
Second Creek	Mile 0.0 to Origin		X	X	X	X	X			
First Creek	Mile 0.0 to Origin			X	X	X	X			

(Rule 1200-4-4-.08, continued)

All other surface water named and unnamed in the Upper Tennessee River Basin, with the exception of wet weather conveyances, which have not been specifically noted shall be classified			X	X	X	X				

Authority: *T.C.A. §§4-5-201, et seq. and 69-3-105.* ***Administrative History:*** *Original rule filed July 13, 1999; effective October 11, 1999. Amendment filed October 24, 2003; effective January 7, 2004. Amendment filed July 23, 2007; effective October 6, 2007.*

1200-4-4-.09 CLINCH RIVER BASIN.

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Clinch River	Mile 0.0 to 4.4 (Emory River)	X	X	X	X	X	X	X		
Emory River	Mile 0.0 to Origin	X	X	X	X	X	X			
Little Emory River	Mile 0.0 to Origin	X	X	X	X	X	X			
Middle Fork Little Emory River	Mile 0.0 to Origin			X	X	X	X			
Davis Branch	Mile 0.0 to 0.2			X	X	X	X			
Unnamed Tributary	At Emory River (Mile 16.4); Mile 0.0 to 1.0			X	X	X	X			
Crooked Fork Creek	Mile 0.0 to 4.9			X	X	X	X			
Unnamed Tributary	At Crooked Fork Creek (Mile 4.9); Mile 0.0 to Origin			X	X	X	X			
Crooked Fork Creek	Mile 4.9 to Origin	X		X	X	X	X			
Flat Fork Creek	Mile 0.0 to Origin	X		X	X	X	X		X	
Unnamed Tributary	At Flat Fork (Mile 2.3); Mile 0.0 to Origin			X	X	X	X		X	
Stockstill Creek	Mile 0.0 to Origin			X	X	X	X			
Obed River	Mile 0.0 to 40.1			X	X	X	X			
Daddy's Creek	Mile 0.0 to Origin			X	X	X	X			
Basses Creek	Mile 0.0 to Origin			X	X	X	X			
Fox Creek	Mile 0.0 to Origin			X	X	X	X			
Scantling Branch	Mile 0.0 to Origin			X	X	X	X			
Unnamed Trib.	At Scantling Branch (Mile 1.2); Mile 0.0 to Origin			X	X	X	X			
Unnamed Tributary	At Obed River (Mile 34.6); Mile 0.0 to Origin			X	X	X	X			
Obed River	Mile 40.1 to Origin	X	X	X	X	X	X			
Unnamed Tributary	At Obed River (Mile 45.4); Mile 0.0 to Origin			X	X	X	X			
Clinch River	Mile 4.4 to 12.0 (Poplar Creek)	X	X	X	X	X	X	X		
Poplar Creek	Mile 0.0 to 0.5		X	X	X	X	X			
Poplar Creek	Mile 0.5 to Origin			X	X	X	X			
East Fork Poplar Creek	Mile 0.0 to Origin			X	X	X	X			
Bear Creek	Mile 0.0 to Origin			X	X	X	X			
Indian Creek	At Poplar Creek (Mile 14.3); Mile 0.0 to Origin			X	X	X	X			
Clinch River	Mile 12.0 to 20.0	X	X	X	X	X	X			
White Oak Creek	Mile 0.0 to Origin			X	X		X			
Melton Branch	Mile 0.0 to Origin			X	X		X			

(Rule 1200-4-4-.09, continued)

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Clinch River	Mile 20.0 to 39.6	X	X	X	X	X	X	X		
Beaver Creek	Mile 0.0 to 8.4	X	X	X	X	X	X			
Beaver Creek	Mile 8.4 to 10.4		X	X	X	X	X			
Beaver Creek	Mile 10.4 to 17.5	X	X	X	X	X	X			
Beaver Creek	Mile 17.5 to 17.9		X	X	X	X	X			
Beaver Creek	Mile 17.9 to 21.6	X	X	X	X	X	X			
Beaver Creek	Mile 21.6 to 23.6			X	X	X	X			
Beaver Creek	Mile 23.6 to 29.4	X	X	X	X	X	X			
Beaver Creek	Mile 29.4 to 31.4			X	X	X	X			
Beaver Creek	Mile 31.4 to Origin	X	X	X	X	X	X			
Unnamed Tributary	At Beaver Creek (Mile 44.1); Mile 0.0 to Origin			X	X	X	X			
Clinch River	Mile 39.6 to 41.1	X	X	X	X	X	X	X		
Scarboro Creek	Mile 0.0 to Origin			X	X	X	X			
Clinch River	Mile 41.1 to 46.7	X	X	X	X	X	X	X		
Bull Run Creek	Mile 0.0 to 1.0			X	X	X	X			
Bull Run Creek	Mile 1.0 to Origin	X		X	X	X	X			
Nelson Branch	Mile 0.0 to Origin			X	X	X	X			
Blaze Branch	At Nelson Branch (Mile 5.0); Mile 0.0 to Origin			X	X	X	X			
Clinch River	Mile 46.7 to 47.8	X	X	X	X	X	X	X		
Worthington Branch	At Clinch River (Mile 47.8); Mile 0.0 to Origin			X	X	X	X			
Clinch River	Mile 47.8 to 50.7	X	X	X	X	X	X	X		
Braden Branch	At Clinch River (Mile 50.7); Mile 0.0 to 1.7			X	X		X			
Braden Branch	Mile 1.7 to Origin			X	X	X	X			
Clinch River	Mile 50.7 to 51.1	X	X	X	X	X	X	X		
Unnamed Tributary	At Clinch River (Mile 51.1); Mile 0.0 to Origin			X	X	X	X			
Clinch River	Mile 51.1 to 61.5	X	X	X	X	X	X	X		
Clinch River	Mile 61.5 to 66.2	X	X	X	X	X	X			
Hinds Creek	At Clinch River (Mile 65.0); Mile 0.0 to Origin			X	X	X	X			
Buffalo Creek	Mile 0.0 to Origin			X	X	X	X			
Clinch River	Mile 66.2 to 79.8	X	X	X	X	X	X		X	
Cane Creek	At Clinch River (Mile 71.3); Mile 0.0 to Origin			X	X	X	X			
Blowing Spring Fork	At Cane Creek (Mile 1.9); Mile 0.0 to Origin			X	X	X	X			
Coal Creek	At Clinch River (Mile 75.0); Mile 0.0 to Origin			X	X	X	X		X	
Unnamed Tributary	At Coal Creek (Mile 8.6); Mile 0.0 to Origin			X	X	X	X			
Clinch River	Mile 79.8 to 202.1 (Virginia Stateline)	X	X	X	X	X	X			
Cove Creek	Mile 0.0 to 15.1	X	X	X	X	X	X			
Unnamed Tributary	At Cover Creek (Mile 13.7); Mile 0.0 to Origin			X	X	X	X			
Cove Creek	Mile 15.1 to 16.1		X	X	X	X	X			
Cove Creek	Mile 16.1 to Origin	X	X	X	X	X	X			
Bruce (Brush) Creek	Mile 0.0 to Origin			X	X	X	X			
Dog Creek	At Bruce Creek (Mile 0.9); Mile 0.0 toOrigin			X	X	X	X			
Unnamed Trib.	At Dog Creek (Mile 2.0); Mile 0.0 to Origin			X	X	X	X			
Big Creek	At Clinch River (Mile 83.0); Mile 0.0 to 15.6	X	X	X	X	X	X			
Big Creek	Mile 15.6 to 17.6		X	X	X	X	X			

(Rule 1200-4-4-.09, continued)

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Big Creek	Mile 17.6 to Origin			X	X	X	X			
Ollis Creek	At Big Creek (Mile 20.4); Mile 0.0 to Origin	X	X	X	X	X	X			
Powell River	At Clinch River (Mile 88.8); Mile 0.0 to 115.7	X	X	X	X	X	X			
Gap Creek	At Powell River (Mile 57.7); Mile 0.0 to Origin			X	X	X	X			
Unnamed Spring Br.	From Sinkhole to Origin			X	X	X	X			
Russell Creek	At Powell River (Mile 82.4); Mile 0.0 to Origin			X	X	X	X			
Clear Creek	Mile 0.0 to 2.0			X	X	X	X		X	
White Creek	Mile 0.0 to 2.0			X	X	X	X		X	
Mill Creek	At Clinch River (Mile 98.0); Mile 0.0 to Origin			X	X	X	X			
Byram's Creek	At Mill Creek (Mile 0.5); Mile 0.0 to Origin			X	X	X	X			
Unnamed Tributary	At Byram's Creek (Mile 2.3); Mile 0.0 to Origin			X	X	X	X			
Ball Creek	Mile 0.0 to Origin	X		X	X	X	X		X	
Poorland Creek	At Clinch River (Mile 104.2); Mile 0.0 to Origin			X	X	X	X			
Dry Tributary	At Poorland Creek (Mile 2.5); Mile 0.0 to Waste Outfall			X	X		X			
Hunting Creek	At Clinch River (Mile 118.3); Mile 0.0 to Origin			X	X	X	X			
Unnamed Tributary	At Hunting Creek (Mile 2.0); Mile 0.0 to Origin			X	X	X	X			
Big War Creek	At Clinch River (Mile 164.4); Mile 0.0 to 8.0			X	X	X	X			
Flat Gap Creek	At Big War Branch (Mile 7.0); Mile 0.0 to Origin			X	X	X	X			
Big War Creek	Mile 8.0 to Origin			X	X	X	X			
North Fork Clinch River	At Clinch River (Mile 192.0); Mile 0.0 to 2.2			X	X	X	X		X	
		X	X	X	X	X	X			
All other surface waters named and unnamed in the Clinch River Basin, with the exception of wet weather conveyances, which have not been specifically treated shall be classified				X	X	X	X			

Authority: *T.C.A. §§4-5-201, et seq. and 69-3-105.* ***Administrative History:*** *Original rule filed July 13, 1999; effective October 11, 1999. Amendment filed October 24, 2003; effective January 7, 2004. Amendment filed July 23, 2007; effective October 6, 2007.*

1200-4-4-.10 FRENCH BROAD RIVER BASIN.

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
French Broad River	Mile 0.0 to 102.2 (N. Carolina-Tenn Line)	X	X	X	X	X	X			
Hines Creek	Mile 0.0 to Origin		X	X	X	X	X			
Unnamed Tributary	At Hines Creek (Mile 1.7)			X	X		X			
Unnamed Tributary	At Hines Creek (Mile 3.7)			X	X		X			
Cement Mill Creek	Mile 0.0 to Origin		X	X	X	X	X			
Boyds Creek	Mile 0.0 to Origin		X	X	X	X	X			
Unnamed Tributary	At Boyds Creek (Mile 9.7)			X	X		X			
Unnamed Tributary	At Boyds Creek (Mile 11.5)			X	X		X			
Little Pigeon River	Mile 0.0 to 2.9	X	X	X	X	X	X			
Gist (Guess) Creek	Mile 0.0 to Origin			X	X	X	X			
Little Pigeon River	Mile 2.9 to 4.8		X	X	X	X	X			
W. Prong Little Pigeon R.	Mile 0.0 to 4.5	X	X	X	X	X	X			
W. Prong Little Pigeon R.	Mile 4.5 to 7.9	X	X	X	X	X	X		X	
W. Prong Little Pigeon R.	Mile 7.9 to 8.8		X	X	X	X	X		X	
W. Prong Little Pigeon R.	Mile 8.8 to 13.0	X	X	X	X	X	X		X	
W. Prong Little Pigeon R.	Mile 13.0 to 14.0		X	X	X	X	X		X	
W. Prong Little Pigeon R.	Mile 14.0 to 19.0		X	X	X	X	X		X	
Dudley Creek	Mile 0.0 to Origin			X	X	X	X		X	
Little Dudley Creek	Mile 0.0 to Origin			X	X	X	X		X	
Roaring Fork Creek	Mile 0.0 to Origin			X	X	X	X			X
Baskins Creek	Mile 0.0 to Origin			X	X	X	X		X	
Norton Creek	Mile 0.0 to Origin			X	X	X	X			X
Leconte Creek	Mile 0.0 to Origin			X	X	X	X		X	
W. Prong Little Pigeon R.	Mile 19.0 to Origin	X		X	X	X	X			X
Twomile Creek	Mile 0.0 to Origin			X	X	X	X			X
Fighting Creek	Mile 0.0 to Origin			X	X	X	X			X
Sugarland Branch	Mile 0.0 to Origin			X	X	X	X			X
Big Branch	Mile 0.0 to Origin			X	X	X	X			X
Road Prong	Mile 0.0 to Origin			X	X	X	X			X
Cole Branch	Mile 0.0 to Origin			X	X	X	X			X
Alum Cave Creek	Mile 0.0 to Origin			X	X	X	X			X
Walker Camp Pr	Mile 0.0 to Origin			X	X	X	X			X
Little Pigeon River	Mile 4.8 to 20.3	X	X	X	X	X	X			
Little Pigeon River	Mile 20.3 to Origin	X		X	X	X	X		X	
E.F. Little Pigeon R.	Mile 0.0 to Origin	X	X	X	X	X	X			
Dunn Creek	Mile 0.0 to 15.8	X	X	X	X	X	X		X	
Dunn Creek	Mile 15.8 to Origin	X	X	X	X	X	X			X
Ogle Springs Br	Mile 0.0 to Origin			X	X	X	X			
Bird Creek	Mile 0.0 to Origin			X	X	X	X			
Webb Creek	Mile 0.0 to Great Smoky Mtns Pk Boundary (Mile 5.8)			X	X	X	X		X	
Soak Ash Creek	Mile 0.0 to Origin			X	X	X	X			X
Timothy Creek	Mile 0.0 to Origin			X	X	X	X			X

(Rule 1200-4-4-.10, continued)

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Redwine Creek	Mile 0.0 to Origin			X	X	X	X			X
Noisy Creek	Mile 0.0 to Origin			X	X	X	X			X
Texas Creek	Mile 0.0 to Origin			X	X	X	X			X
Webb Creek	Great Smoky Mts boundary to origin			X	X	X	X			X
Copeland Creek	Mile 0.0 to Origin			X	X	X	X		X	
Injun Creek	Mile 0.0 to Origin			X	X	X	X		X	
Rhododendron Creek	Mile 0.0 to Origin			X	X	X	X		X	
Porters Creek	Mile 0.0 to Origin			X	X	X	X		X	
False Gap Prong	Mile 0.0 to Origin			X	X	X	X		X	
Kalanu Prong	Mile 0.0 to Origin			X	X	X	X		X	
Long Branch	Mile 0.0 to Origin			X	X	X	X		X	
Cannon Creek	Mile 0.0 to Origin			X	X	X	X		X	
Lowes Creek	Mile 0.0 to Origin			X	X	X	X		X	
Boulevard Prong	Mile 0.0 to Origin			X	X	X	X		X	
Shutts Prong	Mile 0.0 to Origin			X	X	X	X		X	
Middle Prong Little Pigeon	Mile 0.0 to Origin			X	X	X	X		X	
Ramsey Prong	Mile 0.0 to Origin			X	X	X	X		X	
Chapman Prong	Mile 0.0 to Origin			X	X	X	X		X	
Eagle Rocks Branch	Mile 0.0 to Origin			X	X	X	X		X	
Lost Prong	Mile 0.0 to Origin			X	X	X	X		X	
Buck Fork	Mile 0.0 to Origin			X	X	X	X		X	
Muddy Creek	Mile 0.0 to Origin			X	X	X	X			
Clear Creek	Mile 0.0 to Origin	X		X	X	X	X			
City Spring Tributary	Mile 0.0 to Origin			X	X	X	X			
Indian Creek	Mile 0.0 to Origin			X	X	X	X			
Ball Creek	Mile 0.0 to Origin			X	X	X	X			
Unnamed Tributary	At Ball Creek (Mile 2.9); Mile 0.0 to Origin			X	X		X			
Leadvale Creek	Mile 0.0 to Origin			X	X	X	X			
Clear Creek	Mile 0.0 to Origin			X	X	X	X			
Nolichucky River	Mile 0.0 to 5.3	X	X	X	X	X	X			
Long Creek	Mile 0.0 to Origin			X	X	X	X			
Sinking Creek	Mile 0.0 to Origin			X	X	X	X			
Nolichucky River	Mile 5.3 to 7.7		X	X	X	X	X			
Nolichucky River	Mile 7.7 to 100.8 (N. Carolina-Tenn Line)	X	X	X	X	X	X			
Slate Creek	Mile 0.0 to Origin			X	X	X	X			
Bent Creek	Mile 0.0 to Origin			X	X	X	X			
Mud Creek	Mile 0.0 to Origin			X	X	X	X			
Williams Branch	Mile 0.0 to Origin			X	X	X	X			
Lick Creek	Mile 0.0 to 49.0		X	X	X	X	X			
Lick Creek	Mile 49.0 to Origin	X	X	X	X	X	X			
Black Creek	Mile 0.0 to Origin			X	X	X	X			
War Branch	Mile 0.0 to 0.5			X	X	X	X			
Unnamed Tributary	At Lick Creek (Mile 36.1); Mile 0.0 to Origin			X	X		X			
Little Chucky Creek	Mile 0.0 to Origin			X	X	X	X			
Mosheim Branch	Mile 0.0 to Origin			X	X	X	X			

(Rule 1200-4-4-.10, continued)

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Unnamed Trib.	At Mosheim Branch (Mile 2.0); Mile 0.0 to Origin			X	X		X			
Unnamed Tributary	At Little Chucky Creek (Mile 17.2); Mile 0.0 to Origin			X	X	X	X			
Gap Creek	Mile 0.0 to Origin			X	X	X	X			
Furness Branch	Mile 0.0 to Origin			X	X	X	X			
Cove Creek	Mile 0.0 to Origin			X	X	X	X			
Flag Branch	Mile 0.0 to Origin			X	X	X	X			
Richland Creek	Mile 0.0 to Origin		X	X	X	X	X			
Crazy Creek	Sinkhole to Origin			X	X	X	X			
Unnamed Tributary	At Crazy Creek (Mile 1.3); Mile 0.0 to 0.5			X	X	X	X			
Unnamed Tributary	Mile 0.5 to Origin			X	X		X			
Camp Creek	Mile 0.0 to Origin		X	X	X	X	X			X
Jennings Creek	Mile 0.0 to Origin			X	X	X	X			X
Dry Creek	Mile 0.0 to 1.3			X	X	X	X			
Dry Creek	Mile 1.3 to Origin			X	X	X	X			X
Davis Creek	Mile 0.0 to Origin			X	X	X	X			X
College Creek	Mile 0.0 to Origin			X	X	X	X			
Moon Creek	Mile 0.0 to Origin			X	X	X	X			
Sinking Creek	Mile 0.0 to Origin			X	X	X	X			
Little Limestone Creek	Mile 0.0 to Origin			X	X	X	X			
Horse Creek	Mile 0.0 to Origin			X	X	X	X			X
Squibb Branch	Mile 0.0 to Origin			X	X	X	X			X
Cassi Creek, East and West Fork	Mile 0.0 to Origin			X	X	X	X			X
Clarks Creek	Mile 0.0 to Origin			X	X	X	X			X
Devil Fork Branch	Mile 0.0 to Origin			X	X	X	X			X
Long Arm Branch	Mile 0.0 to Origin			X	X	X	X			X
Chigger Branch	Mile 0.0 to Origin			X	X	X	X			X
Broad Shoal Creek	Mile 0.0 to Origin			X	X	X	X			X
California Creek	Mile 0.0 to Origin			X	X	X	X			X
North Indian Creek	Upstream of Erwin	X	X	X	X	X	X			X
Rock Creek	Mile 0.0 to Origin			X	X	X	X			X
Duck Creek	Mile 0.0 to Origin			X	X	X	X			X
Red Fork Creek	Mile 0.0 to Origin			X	X	X	X			X
Clear Fork Branch	Mile 0.0 to Origin			X	X	X	X			X
South Indian Creek	Mile 0.0 to Origin			X	X	X	X			X
Mill Creek	Mile 0.0 to Origin			X	X	X	X			X
Granny Lewis Creek	Mile 0.0 to Origin			X	X	X	X			X
Lower Higgins Creek	Mile 0.0 to Origin			X	X	X	X			X
Birchfield Camp Br	Mile 0.0 to Origin			X	X	X	X			X
Big Branch	Mile 0.0 to Origin			X	X	X	X			X
Spivey Creek	Mile 0.0 to Origin			X	X	X	X			X
Coffee Ridge Cr	Mile 0.0 to Origin			X	X	X	X			X
Watts Branch	Mile 0.0 to Origin			X	X	X	X			X
Tumbling Creek	Mile 0.0 to Origin			X	X	X	X			X
Rocky Fork Creek	Mile 0.0 to Origin			X	X	X	X			X
Flint Creek	Mile 0.0 to Origin			X	X	X	X			X

(Rule 1200-4-4-.10, continued)

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Devil Fork Creek	Mile 0.0 to Origin			X	X	X	X			X
Sams Creek	Mile 0.0 to Origin			X	X	X	X			X
Upper Higgins Creek	Mile 0.0 to Origin			X	X	X	X			X
E. Fk Higgins Cr	Mile 0.0 to Origin			X	X	X	X			X
Rice Creek	Mile 0.0 to Origin			X	X	X	X			X
Jones Creek	Mile 0.0 to Origin			X	X	X	X			X
Long Branch	Mile 0.0 to Origin			X	X	X	X			X
Pigeon River	Mile 0.0 to 25.9 (Tenn-N. Car. Line)		X	X	X	X	X			
Matthew Creek	Mile 0.0 to Origin			X	X	X	X		X	
Sinking Creek	Mile 0.0 to 5.2		X	X	X	X	X			X
Sinking Creek	Mile 5.2 to Origin	X		X	X	X	X		X	
Cosby Creek	Mile 0.0 to 4.3			X	X	X	X		X	
Cosby Creek	Mile 4.3 to Origin			X	X	X	X			X
N. Fork Bogard Cr	Mile 0.0 to Origin			X	X	X	X		X	
Indian Camp Creek	Mile 0.0 to Origin			X	X	X	X			X
Mill Creek	Mile 0.0 to Origin			X	X	X	X			X
Big Creek	Mile 0.0 to Origin			X	X	X	X			X
Gulf Fork Big Creek	Mile 0.0 to Origin			X	X	X	X			X
Trail Fork Big Creek	Mile 0.0 to Origin			X	X	X	X		X	
Dry Fork Creek	Mile 0.0 to Origin			X	X	X	X			X
Bailey Branch	Mile 0.0 to Origin			X	X	X	X		X	
Bear Branch	Mile 0.0 to Origin			X	X	X	X		X	
Laurel Fork Creek	Mile 0.0 to Origin			X	X	X	X			X
Moss Camp Creek	Mile 0.0 to Origin			X	X	X	X			X
Deep Gap Creek	Mile 0.0 to Origin			X	X	X	X			X
M. Prong Gulf Fork	Mile 0.0 to Origin			X	X	X	X			X
Laurel Creek	Mile 0.0 to Origin			X	X	X	X			X
Brown Gap Creek	Mile 0.0 to Origin			X	X	X	X			X
Tom Creek	Mile 0.0 to Origin			X	X	X	X		X	
Wolf Creek	Mile 0.0 to 2.0			X	X	X	X		X	
Wolf Creek	Mile 2.0 to Origin			X	X	X	X			X
Brush Creek	Mile 0.0 to 1.0			X	X	X	X		X	
Paint Creek	Mile 0.0 to Origin			X	X	X	X			X
All other surface waters named and unnamed in the French Broad River Basin, with the exception of wet weather conveyances, which have not been specifically noted shall be classified				X	X	X	X			

Authority: *T.C.A. §§4-5-201, et seq. and 69-3-105.* ***Administrative History:*** *Original rule filed July 13, 1999; effective October 11, 1999. Amendment filed October 24, 2003; effective January 7, 2004. Amendment filed July 23, 2007; effective October 6, 2007.*

1200-4-4-.11 HOLSTON RIVER BASIN.

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Holston River	Mile 0.0 to 131.5 (Church Hill Bridge)	X	X	X	X	X	X			
Unnamed Branch	At Holston River (Mile 1.0); Mile 0.0 to Origin			X	X	X	X			
Sand Branch	Mile 0.0 to Origin			X	X	X	X			
Swan Pond Creek	Mile 0.0 to 5.0			X	X	X	X			
Pratt Branch	Mile 0.0 to Origin			X	X	X	X			
Woods Creek	Mile 0.0 to Origin			X	X	X	X			
Unnamed Branch	At Holston River (Mile 6.7); Mile 0.0 to Origin			X	X	X	X			
Maccash Branch	At Holston River (Mile 10.8); Mile 0.0 to Origin			X	X	X	X			
Roseberry Creek	Mile 0.0 to Origin			X	X	X	X			
Unnamed Branch	At Roseberry Creek (Mile 1.7); Mile 0.0 to 0.5			X	X	X	X			
Unnamed Branch	Mile 0.5 to 0.7			X	X	X	X			
Big Flat Creek	Mile 0.0 to 8.0		X	X	X	X	X			
Little Flat Creek	Mile 0.0 to Origin			X	X	X	X			
Unnamed Tributary	At L. Flat Creek (Mile 1.3); Mile 0.0 to Origin			X	X	X	X			
Big Flat Creek	Mile 8.0 to Origin			X	X	X	X			
Lyon Creek	Mile 0.0 to 0.3		X	X	X	X	X			
Lyon Creek	Mile 0.3 to 1.9		X	X	X	X	X			
Unnamed Branch	At Lyon Creek (Mile 1.9); Mile 0.0 to Origin			X	X	X	X			
Lyon Creek	Mile 1.9 to Origin			X	X	X	X			
Unnamed Branch	At Lyon Creek (Mile 2.7); Mile 0.0 to Origin			X	X	X	X			
Richland Creek	At Holston River (Mile 27.1); Mile 0.0 to Origin			X	X	X	X			
Beaver Creek	At Holston River (Mile 30.4); Mile 0.0 to Origin			X	X	X	X			
Lost Creek at New Market	Sink at Mile 1.9 to Origin			X	X	X	X			
Buffalo Creek	Below Buffalo Springs			X	X	X	X		X	
Mossy Creek	At Holston River (Mile 52.4); Mile 0.0 to 3.9	X	X	X	X	X	X			
Mossy Creek	Mile 3.9 to Origin		X	X	X	X	X		X	
Unnamed Branch	At Holston River (Mile 55.0); Mile 0.0 to Origin			X	X	X	X			
German Creek	At Holston River (Mile 70.2); Mile 0.0 to 8.1	X	X	X	X	X	X			
German Creek	Mile 8.1 to Origin			X	X	X	X			
Turkey Creek	At Holston River (Mile 75.2); Mile 0.0 to 1.2	X	X	X	X	X	X			
Turkey Creek	Mile 1.2 to Origin			X	X	X	X			
Spring Creek	At Holston River (Mile 76.0); Mile 0.0 to 1.2	X	X	X	X	X	X			
Spring Creek	Mile 1.2 to Origin			X	X	X	X			
Thompson Creek	Mile 0.0 to Origin			X	X	X	X			
Fall Creek	At Holston River (Mile 80.7); Mile 0.0 to 1.0	X	X	X	X	X	X			
Fall Creek	Mile 1.0 to Origin			X	X	X	X			
Poor Valley Creek	At Holston River (Mile 89.2); Mile 0.0 to 6.8	X	X	X	X	X	X			
Mooresburg Branch	Mile 0.0 to 1.6	X	X	X	X	X	X			
Mooresburg Branch	Mile 1.6 to Origin			X	X	X	X			
Poor Valley Creek	Mile 6.8 to Origin			X	X	X	X			
Beech Creek	At Holston River (Mile 108.8); Mile 0.0 to Origin			X	X	X	X			
Big Creek (Stanley Prong)	Holston River (Mile 109.1); Mile 0.0 to Origin	X	X	X	X	X	X		X	
Forgey Creek	At Holston River (Mile 116.9); Mile 0.0 to Origin			X	X	X	X			

(Rule 1200-4-4-.11, continued)

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Unnamed Branch	At Forgey Creek (Mile 1.1); Mile 0.0 to 1.0			X	X		X			
Stoney Point Creek	At Holston River (Mile 123.0); Mile 0.0 to Origin			X	X	X	X			
Unnamed Branch	At Stoney Point Creek (Mile 0.2); Mile 0.0 to Origin			X	X	X	X			
Bradley Creek	At Holston River (Mile 128.8); Mile 0.0 to Origin	X		X	X	X	X			
Holston River	Mile 131.5 to Origin (Mile 142.2)			X	X	X	X			
Alexander Creek	At Holston River (Mile 131.9); Mile 0.0 to 3.4	X	X	X	X	X	X		X	
Unnamed Branch	At Alexander Creek (Mile 3.4); Mile 0.0 to 0.3			X	X	X	X			
Alexander Creek	Mile 3.4 to Origin			X	X	X	X		X	
Smith Creek	At Holston River (Mile 135.5); Mile 0.0 to Origin			X	X	X	X			
Arnott Branch	At Holston River (Mile 137.9); Mile 0.0 to Origin			X	X	X	X			
North Fork Holston River	Mile 0.0 to 5.2 (Tenn-Virginia Line)			X	X		X			
South Fork Holston River	Mile 0.0 to 2.3		X	X	X					
Reedy Creek	Mile 0.0 to 7.1		X	X	X	X	X			
Reedy Creek	Mile 7.1 to Tenn-Virginia Line	X	X	X	X	X	X			
South Fork Holston River	Mile 2.3 to 5.7		X	X	X					
Horse Creek	Mile 0.0 to 1.3		X	X	X	X	X			
Horse Creek	Mile 1.3 to Origin			X	X	X	X			
Little Horse Creek	At Horse Creek (Mile 3.6); Mile 0.0 to Origin			X	X	X	X			
Dolan Branch	At Little Horse Creek (Mile 2.8); Mile 0.0 to Origin			X	X	X	X			
Unnamed Branch	At S.F. Holston River (Mile 4.0); Mile 0.0 to Origin		X	X	X	X	X			
South Fork Holston River	Mile 5.7 to 19.6	X	X	X	X	X	X		X	
Kendrick Creek	Mile 0.0 to 1.0			X	X	X	X		X	
Kendrick Creek	Mile 1.0 to Origin			X	X	X	X			
Fall Creek	Mile 0.0 to Origin			X	X	X	X			
Unnamed Branch	At S. F. Holston River (Mile 13.6); Mile 0.0 to Origin			X	X	X	X			
Sinking Creek	At S. F. Holston River (Mile 14.1); Mile 0.0 to Origin			X	X	X	X			
Ford Creek	Mile 0.0 to Origin			X	X	X	X			
Unnamed Branch	At Ford Creek (Mile 1.3); Mile 0.0 to Origin		X	X	X	X	X			
Cedar Creek	At S. F. Holston (Mile 18.0); Mile 0.0 to 2.3			X	X	X	X			
Unnamed Branch	At Cedar Creek (Mile 2.3); Mile 0.0 to Origin			X	X	X	X			
Cedar Creek	Mile 2.3 to Origin			X	X	X	X			
Watauga River	At S. F. Holston (Mile 19.6); Mile 0.0 to 15.0	X	X	X	X	X	X			
Boone's Creek	Mile 0.0 to Origin			X	X	X	X			
Knob Creek	Mile 0.0 to Origin			X	X	X	X			
Watauga River	Mile 15.0 to 16.4		X	X	X	X	X			
Brush Creek	Mile 0.0 to Origin			X	X	X	X			
Lick Creek	Mile 0.0 to Origin			X	X	X	X			
Watauga River	Mile 16.4 to 18.0	X	X	X	X	X	X		X	
Watauga River	Mile 18.0 to 25.8		X	X	X	X	X		X	
Buffalo Creek	At Watauga River (Mile 22.1); Mile 0.0 to Origin			X	X	X	X			
Toll Branch	Mile 0.0 to 0.1			X	X	X	X			
Toll Branch	Mile 0.1 to Origin			X	X	X	X			
Unnamed Branch	Mile 0.2 to Origin			X	X	X	X			
Dry Creek	At Buffalo Creek (Mile 3.3); Mile 0.0 to Origin			X	X	X	X			
Unnamed Branch	At Buffalo Creek (Mile 3.0); Mile 0.0 to 0.2			X	X	X	X			

(Rule 1200-4-4-.11, continued)

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Campbell Creek	At Watauga River (Mile 25.7); Mile 0.0 to Origin			X	X	X	X			
Unnamed Branch	At Campbell Creek (Mile 1.6): Mile 0.0 to Origin			X	X	X	X			
Campbell Branch	Mile 1.6 to Origin			X	X	X	X			
Watauga River	Mile 25.8 to 55.1 (N.C.-Tenn. Line)	X	X	X	X	X	X			X
Stony Creek	Mile 0.0 to Origin			X	X	X	X			X
Little Stony Creek	Mile 0.0 to Origin			X	X	X	X			X
Pierce Branch	Mile 0.0 to Origin			X	X	X	X		X	
Bartree Branch	Mile 0.0 to Origin			X	X	X	X		X	
Mill Creek	Mile 0.0 to Origin			X	X	X	X			X
North Fork Stony Creek	Mile 0.0 to Origin			X	X	X	X			X
Upper Hinkle Branch	Mile 0.0 to Origin			X	X	X	X		X	
Doe River	Mile 0.0 to 21.0	X	X	X	X	X	X		X	
Simerly Creek	Mile 0.0 to Origin			X	X	X	X			X
Clarke Creek	Mile 0.0 to Origin			X	X	X	X			X
Tiger Creek	Mile 0.0 to Origin			X	X	X	X			X
Roaring Creek	Mile 0.0 to Origin			X	X	X	X			X
Georges Creek	Mile 0.0 to Origin			X	X	X	X			X
Sugar Hollow Creek	Mile 0.0 to Origin			X	X	X	X		X	
Hampton Creek	Mile 0.0 to Origin			X	X	X	X		X	
L. Prong Hampton Creek	Mile 0.0 to Origin			X	X	X	X			X
Shell Creek	Mile 0.0 to Origin			X	X	X	X			X
Cove Creek	Mile 0.0 to Origin			X	X	X	X			X
Laurel Fork Creek	At Doe River (Mile 7.0); Mile 0.0 to Origin			X	X	X	X			X
Little Laurel Fork	Mile 0.0 to Origin			X	X	X	X			X
Wagner Branch	Mile 0.0 to Origin			X	X	X	X			X
Buck Creek	At Doe River (Mile 20.9); Mile 0.0 to Origin			X	X	X	X			X
Doe River	Mile 21.0 to Origin	X	X	X	X	X	X			X
Little Stony Creek	Mile 0.0 to Origin			X	X	X	X			X
Elk River	At Watauga (Mile 46.8); Mile 0.0 to 14.5 (Stateline)			X	X	X	X		X	
Black Branch	Mile 0.0 to Origin			X	X	X	X			X
Row Branch	Mile 0.0 to Origin			X	X	X	X			X
Heaton Branch	Mile 0.0 to Origin			X	X	X	X			X
Little Laurel Branch	Mile 0.0 to Origin			X	X	X	X			X
Cobb Branch	Mile 0.0 to Origin			X	X	X	X		X	
Cress Branch	Mile 0.0 to Origin			X	X	X	X			X
Roan Creek	At Watauga River (Mile 45.5); Mile 0.0 to 16.7	X	X	X	X	X	X			X
Doe Creek	At Roan Creek (Mile 10.9); Mile 0.0 to Origin			X	X	X	X			X
Spruce Branch	At Doe Creek (Mile 10.9); Mile 0.0 to Origin			X	X	X	X			
Timothy Branch	Mile 0.0 to Origin			X	X	X	X		X	
Campbell's Creek	Mile 0.0 to Origin			X	X	X	X			X
Roan Creek	Mile 16.7 to 17.7			X	X	X	X		X	
Mill Creek	Mile 0.0 to Origin			X	X	X	X			X
Stout Branch	Mile 0.0 to Origin			X	X	X	X			X
Vaught Creek	Mile 0.0 to Origin	X		X	X	X	X			X
Town Creek	At Roan Creek (Mile 17.7); Mile 0.0 to 0.2			X	X	X	X			

(Rule 1200-4-4-.11, continued)

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Town Creek	Mile 0.2 to Origin			X	X	X	X			
Furnace Creek	At Town Creek (Mile 3.0); Mile 0.0 to Origin			X	X	X	X			X
Goose Creek	At Town Creek (Mile 3.0); Mile 0.0 to Origin			X	X	X	X			
Patrick Creek	At Goose Creek (Mile 2.6); Mile 0.0 to Origin			X	X	X	X			
Roan Creek	Mile 17.7 to Origin	X		X	X	X	X			X
Corn Creek	Mile 0.0 to Origin			X	X	X	X			X
Forge Creek	Mile 0.0 to Origin			X	X	X	X			X
Brush Fork Creek	Mile 0.0 to Origin			X	X	X	X		X	
Big Dry Run Creek	Mile 0.0 to Origin			X	X	X	X			X
Buffalo Creek	Mile 0.0 to Origin			X	X	X	X		X	
Gap Creek	Mile 0.0 to Origin			X	X	X	X		X	
South Fork Holston River	Mile 19.6 to 35.5 (above Bluff City)	X	X	X	X	X	X			
Muddy Creek	At S. F. Holston (Mile 25.5); Mile 0.0 to 2.6			X	X	X	X			
Booher Creek	At Muddy Creek (Mile 2.6); Mile 0.0 to Origin			X	X	X	X			
Muddy Creek	Mile 2.6 to Origin			X	X	X	X			
Unnamed Branch	At Muddy Creek (Mile 4.9); Mile 0.0 to Origin			X	X	X	X			
Beaver Creek	At S. F. Holston (Mile 29.6); Mile 0.0 to 9.1		X	X	X	X	X			
Back (Beck) Creek	At Beaver Creek (Mile 6.1); Mile 0.0 to Origin			X	X	X	X			
Univac Branch	At Back Creek (Mile 0.5); Mile 0.0 to Origin			X	X	X	X			
Unnamed Branch	At Beaver Creek (Mile 7.3); Mile 0.0 to Origin			X	X	X	X			
Cedar Creek	At Beaver Creek (Mile 7.9); Mile 0.0 to Origin			X	X	X	X			
Beeler Road Branch	At Cedar Creek (Mile 3.2); Mile 0.0 to Origin			X	X	X	X			
Raytheon Branch	At Beeler Road Branch (Mile 1.2); Mile 0.0 to 0.2			X	X		X			
Beaver Creek	Mile 9.1 to 15.3 (Tenn-Virginia Line)		X	X	X	X	X			
Steele Creek	At Beaver Creek (Mile 11.0); Mile 0.0 to Origin			X	X	X	X			
Indian Creek	At S. F. Holston (Mile 35.0); Mile 0.0 to Origin			X	X	X	X			
Booher Creek	At Indian Creek (Mile 3.7); Mile 0.0 to Origin			X	X	X	X			
Unnamed Branch	At Booher Creek (Mile 0.6); Mile 0.0 to Origin			X	X	X	X			
South Fork Holston River	Mile 35.5 to South Holston Dam	X	X	X	X	X	X		X	
Unnamed Branch	At S. F. Holston (Mile 39.1); Mile 0.0 to Origin			X	X	X	X			
South Fork Holston River	South Holston Dam to mile 62.8 (Virginia Line)	X	X	X	X	X	X			
Big Creek	Mile 0.0 to Origin			X	X	X	X			X
Kendrick Creek	Mile 0.0 to Origin			X	X	X	X		X	
Fishdam Creek	Mile 0.0 to Origin			X	X	X	X			X
Sulphur Springs Branch	Mile 0.0 to Origin			X	X	X	X			X
Sharps Creek	Mile 0.0 to Origin			X	X	X	X		X	
Little Jacobs Creek	Mile 0.0 to Origin	X		X	X	X	X			X
Jacobs Creek	At S. F. Holston (Mile 59.8); Mile 0.0 to 3.4	X	X	X	X	X	X			X
Jacobs Creek	Mile 3.4 to 3.6		X	X	X	X	X			X
Jacobs Creek	Mile 3.6 to Origin			X	X	X	X			X
Harpers Creek	Mile 0.0 to Origin			X	X	X	X			X
Rockhouse Run Creek	Mile 0.0 to Origin			X	X	X	X			X
Laurel Creek	Stateline to Origin			X	X	X	X			X
Beaverdam Creek	Stateline to Origin			X	X	X	X			X

(Rule 1200-4-4-.11, continued)

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
London Bridge Br	Stateline to Origin			X	X	X	X		X	
Reservoir Branch	Mile 0.0 to Origin			X	X	X	X		X	
Stillhouse Branch	Mile 0.0 to Origin			X	X	X	X			X
Chalk Branch	Mile 0.0 to Origin			X	X	X	X			X
Chestnut Branch	Mile 0.0 to Origin			X	X	X	X			X
Haunted Hollow Br.	Mile 0.0 to Origin			X	X	X	X			X
Fagall Branch	Mile 0.0 to Origin			X	X	X	X			X
Birch Branch	Mile 0.0 to Origin			X	X	X	X			X
Parks Branch	Mile 0.0 to Origin			X	X	X	X			X
David Blevin Branch	Mile 0.0 to Origin			X	X	X	X		X	
Johnson Branch	Mile 0.0 to Origin			X	X	X	X			X
Jim Wright Branch	Mile 0.0 to Origin			X	X	X	X			X
Ledford Branch	Mile 0.0 to Origin			X	X	X	X		X	
W. Fk Beaverdam	Mile 0.0 to Origin			X	X	X	X			X
M. Fk Beaverdam	Mile 0.0 to Origin			X	X	X	X			X
E. Fk Beaverdam	Mile 0.0 to Origin			X	X	X	X			X
Lyons Branch	Mile 0.0 to Origin			X	X	X	X			X
Gentry Creek	Mile 0.0 to Origin			X	X	X	X			X
Dry Branch	Mile 0.0 to Origin			X	X	X	X			X
Grindstone Branch	Mile 0.0 to Origin			X	X	X	X			X
Flatwood Branch	Mile 0.0 to Origin			X	X	X	X			X
Corum Branch	Mile 0.0 to Origin			X	X	X	X			X
West Fork Laurel Creek	Mile 0.0 to Origin			X	X	X	X			X
All other surface tributaries named and unnamed in the Holston River Basin, with the exception of wet weather conveyances, which have not been specifically noted shall be classified				X	X	X	X			

Authority: *T.C.A. §§4-5-201, et seq. and 69-3-105.* ***Administrative History:*** *Original rule filed July 13, 1999; effective October 11, 1999. Amendment filed October 24, 2003; effective January 7, 2004. Amendment filed July 23, 2007; effective October 6, 2007.*

1200-4-4-.12 LOWER CUMBERLAND RIVER BASIN.

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Cumberland River	Mile 74.6 (Ky-Tenn Line) to 118.3 (Cummings Cr.)	X	X	X	X	X	X	X		
Saline Creek	Mile 0.0 to Hwy 120		X	X	X	X	X			
Saline Creek	Hwy 120 to Fort Campbell boundary		X	X	X	X	X		X	
Saline Creek	Fort Campbell Boundary to Origin		X	X	X	X	X			
Bear Creek	Mile 0.0 to Origin			X	X	X	X			
Long Creek	Highway 49 to Origin			X	X	X	X		X	
Elk Creek	Mile 0.0 to Origin			X	X	X	X			
Wells Creek	Mile 0.0 to Origin			X	X	X	X			
Yellow Creek	Mile 3.4 to Ruskin Cave			X	X	X	X		X	
Cumberland River	Mile 118.3 to 125.3 (Red River)	X	X	X	X	X	X	X		
Cumberland River	Mile 125.3 to 175.7 (Richland Creek)	X	X	X	X	X	X	X		
Red River	Mile 0.0 to 2.0		X	X	X	X	X	X		
Red River	Mile 2.0 to 15.0	X	X	X	X	X	X	X		
Red River	Mile 15.0 to 51.2 (Ky-Tenn Line)	X	X	X	X	X	X			
South Fork Red River	Mile 20.4 (Ky-Tenn Line) to Origin			X	X	X	X			
Big West Fork	Mile 0.0 to 14.6 (Ky-Tenn Line)		X	X	X		X	X		
Little West Fork	Mile 0.0 to 10.4		X	X	X	X	X			
Sulphur Fork	Mile 0.0 to 26.6	X	X	X	X	X	X			
Sulphur Fork	Mile 26.6 to 28.6		X	X	X	X	X			
Sulphur Fork	Mile 28.6 to Origin	X	X	X	X	X	X			
Carr Creek	Mile 0.0 to Origin			X	X	X	X			
Red River	Mile 81.0 (Ky-Tenn Line) to Origin	X	X	X	X	X	X			
Summers Branch	Mile 0.0 to Origin			X	X	X	X			
Hurricane Creek	Mile 0.0 to Origin			X	X	X	X			
Sulphur Springs Cr	Mile 0.0 to Origin			X	X	X	X			
Harpeth River	Mile 0.0 to 10.3	X	X	X	X	X	X			
Jones Creek	Mile 0.0 to Origin		X	X	X	X	X			
Town Branch	Mile 0.0 to Origin		X	X	X	X	X			
Harpeth River	Mile 10.3 to 52.8	X	X	X	X	X	X			
Trace Creek	Mile 0.0 to Origin		X	X	X	X	X			
Turnbull Creek	Mile 0.0 to Origin	X	X	X	X	X	X			
Sullivans Branch	Mile 0.0 to Origin		X	X	X	X	X			
Beaver Dam Creek	Mile to 0.0 to Origin		X	X	X	X	X			
Gin Branch	Mile 0.0 to Origin		X	X	X	X	X			
Brush Creek	Mile 0.0 to Origin		X	X	X	X	X			
Caney Fork Creek	Mile 0.0 to Origin		X	X	X	X	X			
Harpeth River	Mile 52.8 to 55.8		X	X	X	X	X			
Harpeth River	Mile 55.8 to 57.8		X	X	X	X	X			
Harpeth River	Mile 57.8 to 61.9 (Little Harpeth)	X	X	X	X	X	X			
Little Harpeth River	Mile 0.0 to Origin		X	X	X	X	X			
Harpeth River	Mile 61.9 to 68.3 (Cartwright Creek)		X	X	X	X	X			

(Rule 1200-4-4-.12, continued)

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Cartwright Creek	Mile 0.0 to Origin			X	X	X	X			
Harpeth River	Mile 68.3 to 79.0	X	X	X	X	X	X			
West Harpeth River	Mile 0.0 to Origin	X	X	X	X	X	X			
Harpeth River	Mile 79.0 to 85.2		X	X	X	X	X			
Spencer Creek	Mile 0.0 to Origin			X	X	X	X			
Harpeth River	Mile 85.2 to Origin	X	X	X	X	X	X			
Sycamore Creek	Mile 0.0 to 10.0	X	X	X	X	X	X			
Sycamore Creek	Mile 10.0 to Origin	X		X	X	X	X			
Marrowbone Creek	Mile 0.0 to 3.0	X	X	X	X	X	X			
Marrowbone Creek	Mile 3.0 to Origin	X		X	X	X	X			
Cumberland River	Mile 175.7 to 189.5	X	X	X	X	X	X	X		
Richland Creek	Mile 0.0 to Origin			X	X	X	X			
Whites Creek	Mile 0.0 to Origin		X	X	X	X	X			
Ewing Creek	Mile 0.0 to Origin		X	X	X	X	X			
Cumberland River	Mile 189.5 to 216.2 (Old Hickory Dam)	X	X	X	X	X	X	X		
Mill Creek	Mile 0.0 to 11.5		X	X	X	X	X			
Mill Creek	Mile 11.5 to 23.0			X	X	X	X			
Mill Creek	Mile 23.0 to Origin			X	X	X	X			
Stones River	Mile 0.0 to 6.8	X	X	X	X	X	X			
Stoners Creek	Mile 0.0 to Origin			X	X	X	X			
McCrory Creek	Mile 0.0 to Origin			X	X	X	X			
Stones River (Percy Priest Res.)	Mile 6.8 to 38.7 (Confluence-East & West Fork)	X	X	X	X	X	X			
Suggs Creek	Mile 0.0 to Origin			X	X	X	X			
Smith Springs Creek	Mile 0.0 to Origin			X	X	X	X			
Hurricane Creek	Mile 0.0 to Origin			X	X	X	X			
Stewart Creek	Mile 0.0 to Origin			X	X	X	X			
Harts Branch	Mile 0.0 to Origin			X	X	X	X			
Fall Creek & Tributaries	Mile 0.0 to Origin			X	X	X	X			
East Fork Stones River	Mile 0.0 to 44.5 (Near Woodbury)	X	X	X	X	X	X			
Bradley Creek	Mile 0.0 to Origin			X	X	X	X			
Cripple Creek	Mile 0.0 to Origin			X	X	X	X			
East Fork Stones River	Mile 44.5 to 45.2		X	X	X	X	X			
East Fork Stones River	Mile 45.2 to Origin	X	X	X	X	X	X			
West Fork Stones River	Mile 0.0 to 10.0	X	X	X	X	X	X			
Overall Creek	Mile 0.0 to Origin			X	X	X	X			
West Fork Stones River	Mile 10.0 to 15.2		X	X	X	X	X			
West Fork Stones River	Mile 15.2 to Origin	X	X	X	X	X	X			
Lytle Creek	Mile 0.0 to Origin			X	X	X	X			
Middle Fork Stones	Mile 0.0 to Origin	X	X	X	X	X	X			
Christmas Creek	Mile 0.0 to Origin			X	X	X	X			
Cumberland River	Mile 216.2 to 309.2 (Caney Fork River)	X	X	X	X	X	X	X		
Drakes Creek	Mile 0.0 to 4.9	X	X	X	X	X	X	X		
Drakes Creek	Mile 4.9 to Origin			X	X	X	X			

(Rule 1200-4-4-.12, continued)

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Smiths Creek	Mile 0.0 to Origin			X	X	X	X			
Cedar Creek	Mile 0.0 to 2.0	X	X	X	X	X	X	X		
Cedar Creek	Mile 2.0 to Origin			X	X	X	X			
Spencer Creek	Mile 0.0 to 2.8	X	X	X	X	X	X	X		
Spencer Creek	Mile 2.8 to Origin			X	X	X	X			
Bartons Creek	Mile 0.0 to Origin			X	X	X	X			
Sinking Creek	Mile 0.0 to Origin			X	X	X	X			
Big Goose Creek	Mile 0.0 to Origin			X	X	X	X			
Little Goose Creek	Mile 0.0 to Origin			X	X	X	X			
Round Lick Creek	Mile 0.0 to Origin			X	X	X	X			
All other surface waters named and unnamed in the Lower Cumberland River Basin (and Green River Basin), with the exception of wet weather conveyances, which have not been specifically noted shall be classified.				X	X	X	X			

Authority: *T.C.A. §§4-5-201, et seq. and 69-3-105.* ***Administrative History:*** *Original rule filed July 13, 1999; effective October 11, 1999. Amendment filed October 24, 2003; effective January 7, 2004. Amendment filed July 23, 2007; effective October 6, 2007.*

1200-4-4-.13 UPPER CUMBERLAND RIVER BASIN.

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Cumberland River	Mile 309.2 to 385.5 (Ky-Tenn Line)	X	X	X	X	X	X	X		
Caney Fork River	Mile 0.0 to 25.4	X	X	X	X	X	X	X	X	
Mulherrin Creek	Mile 0.0 to Origin			X	X	X	X			
Hickman Creek	Mile 0.0 to Origin			X	X	X	X			
Smith Fork Creek	Mile 0.0 to Mile 3.0			X	X	X	X		X	
Smith Fork Creek	Mile 3.0 to Origin			X	X	X	X			
Dry Creek	Mile 0.0 to Origin			X	X	X	X		X	
Jones Fork	Mile 0.0 to Origin			X	X	X	X		X	
Caney Fork River	Mile 25.4 to Origin	X	X	X	X	X	X			
Mine Lick Creek	Mile 0.0 to 5.0	X		X	X	X	X			
Mine Lick Creek	Mile 5.0 to Origin			X	X	X	X			
Falling Water River	Mile 0.0 to 39.0	X		X	X	X	X			
Falling Water River	Mile 39.0 to Origin			X	X	X	X			
Cane Creek	Mile 0.0 to Origin			X	X	X	X			
Pigeon Roost Creek	Mile 0.0 to Origin			X	X	X	X			
Fall Creek	Mile 0.0 to Origin			X	X	X	X			
Pine Creek	Mile 2.4 to Origin			X	X	X	X		X	
Turner Branch	Mile 0.0 to 0.5			X	X	X	X		X	
Sink Creek	Mile 4.6 to Origin			X	X	X	X		X	
Collins River	Mile 0.0 to 43.0	X	X	X	X	X	X			
Mountain Creek	Mile 0.0 to 6.0			X	X	X	X		X	
Charles Creek	Mile 0.0 to 9.0			X	X	X	X		X	
Barren Fork River	Mile 0.0 to 4.5			X	X	X	X			
Barren Fork River	Mile 4.5 to Origin	X	X	X	X	X	X		X	
Hickory Creek	Mile 19.0 to 24.0			X	X	X	X		X	
W.F. Hickory C	Mile 0.0 to Origin			X	X	X	X			
Keel Branch	Mile 0.0 to Origin			X	X	X	X			
Hills Creek	Mile 0.0 to Origin			X	X	X	X		X	
Collins River	Mile 43.0 to 49.0	X		X	X	X	X		X	
Big Creek	Mile 0.0 to 6.0	X		X	X	X	X			
Big Creek	Mile 6.0 to Origin			X	X	X	X			
Collins River	Mile 49.0 to Origin			X	X	X	X			
Caney Fork River	Mile 92.2 to Origin	X	X	X	X	X	X			
Rocky River	Mile 0.0 to 9.0	X	X	X	X	X	X			
Rocky River	Mile 9.0 to 13.0	X	X	X	X	X	X		X	
Rocky River	Mile 13.0 to Origin	X	X	X	X	X	X			
Calfkiller River	Mile 0.0 to 14.1	X	X	X	X	X	X			
Calfkiller River	Mile 14.1 to 30.8	X	X	X	X	X	X			
Town Creek	Mile 0.0 to Origin			X	X	X	X			
Calfkiller River	Mile 30.8 to Origin	X	X	X	X	X	X		X	
Cane Creek	Mile 1.0 to 8.0	X	X	X	X	X	X		X	
Falls Creek	Mile 0.0 to Origin			X	X	X	X			

(Rule 1200-4-4-.13, continued)

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
Cane Creek	Mile 8.0 to Origin	X	X	X	X	X	X			
Bee Creek	Mile 0.0 to 7.3			X	X	X	X			
Bee Creek	Mile 7.3 to Origin	X		X	X	X	X			
Wilkerson Creek	Mile 0.0 to Origin			X	X	X	X			
Frey Branch	Mile 0.0 to Origin			X	X	X	X			
Roaring River	Mile 0.0 to 29.9			X	X	X	X			
Roaring River	Mile 29.9 to Origin	X		X	X	X	X			
Spring Creek	Mile 0.0 to Origin			X	X	X	X			
Bear Creek	Mile 0.0 to Origin			X	X	X	X			
Carr Creek	Mile 0.0 to 4.2			X	X	X	X			
Carr Creek	Mile 4.2 to Origin	X		X	X	X	X			
Town Creek	Mile 0.0 to Origin			X	X	X	X			
Goose Creek	Mile 0.0 to 12.0			X	X	X	X		X	
Flynns Creek	Mile 0.0 to 5.0			X	X	X	X		X	
Obey River	Mile 0.0 to 7.3	X	X	X	X	X	X		X	
Neely Creek	Mile 0.0 to Origin (3.3 miles)			X	X	X	X		X	
Wolf River	Mile 0.0 to Ky State Line		X	X	X	X	X			
Wolf River	Ky State Line to Origin			X	X	X	X		X	
Town Creek	Mile 0.0 to Origin			X	X	X	X			
Obey River	Mile 7.3 to confluence of East and West Forks	X	X	X	X	X	X			
West Fork Obey River	Mile 0.0 to Origin			X	X	X	X			
East Fork Obey River	Mile 0.0 to Origin	X		X	X	X	X			
Buffalo Cove Creek	Mile 0.0 to Origin			X	X	X	X			
Rock Castle Creek	Mile 0.0 to Origin			X	X	X	X			
Big South Fork Cumberland River	Mile 55.5 (Ky-Tenn Line) to Origin (Mile 77.0)	X	X	X	X	X	X			
No Business Creek	Upper 4.0 miles			X	X	X	X		X	
Parch Corn Creek	Upper 1.5 miles			X	X	X	X		X	
Station Camp Creek	Upper 4.8 miles			X	X	X	X		X	
Laurel Fork Creek	Upper 4.9 miles			X	X	X	X		X	
North White Oak Creek	Upper 3.9 miles			X	X	X	X		X	
Williams Creek	Upper 7.6 miles			X	X	X	X		X	
Pine Creek	Mile 0.0 to 10.5			X	X	X	X			
Pine Creek	Mile 10.5 to Origin	X		X	X	X	X			
New River	Mile 0.0 to 15.0			X	X	X	X			
New River	Mile 15.0 to Origin	X		X	X	X	X			
Clear Fork River	Mile 0.0 to Origin			X	X	X	X			
Elk Fork Creek	Mile 1.8 (KY Line) to Origin	X		X	X	X	X			
All other surface waters named and unnamed, within the Upper Cumberland River Basin, with the exception of wet weather conveyances, which have not been specifically noted shall be classified				X	X	X	X			

Authority: *T.C.A. §§4-5-201, et seq. and 69-3-105.* ***Administrative History:*** *Original rule filed July 13, 1999; effective October 11, 1999. Amendment filed October 24, 2003; effective January 7, 2004. Amendment filed July 23, 2007; effective October 6, 2007.*

1200-4-4-.14 BARREN RIVER WATERSHED.

STREAM	DESCRIPTION	DOM	IWS	FAL	REC	LWW	IRR	NAV	TS	NRTS
West Fork Drakes Creek	Mile 33.0 (stateline) to Origin			X	X	X	X			
Caney Fork Creek	Mile 0.0 to Origin			X	X	X	X			
Dry Fork Creek	Mile 0.0 to Origin			X	X	X	X			
Middle Fork Drakes Creek	Mile 22.2 (stateline) to Origin	X		X	X	X	X			
Sulphur Fork Creek	Mile 9.0 (stateline) to Origin			X	X	X	X			
Dutch Creek	Mile 0.0 to Origin			X	X	X	X			
Trammel Creek	Mile 30.7 (stateline) to Origin			X	X	X	X			
Little Trammel Creek	Mile 4.7 (stateline) to Origin			X	X	X	X			
Long Creek	Mile 14.6 (stateline) to Origin			X	X	X	X			
West Fork Long Creek	Mile 0.0 to Origin			X	X	X	X			
Puncheon Creek	Mile 4.3 (stateline) to Origin			X	X	X	X			
Unnamed Tributary (Adams Spring)	Mile 0.0 to Origin	X		X	X	X	X			
Little Puncheon Creek	Mile 0.0 to Origin			X	X	X	X			
Spring Creek	Mile 0.0 to Origin	X		X	X	X	X			
Salt Lick Creek	Mile 4.7 (stateline) to mile 6.8			X	X	X	X			
Salt Lick Creek	Mile 6.8 to mile 9.9			X	X	X	X		X	
Salt Lick Creek	Mile 9.9 to Origin			X	X	X	X			
Long Fork	Mile 4.5 (stateline) Origin			X	X	X	X			
White Oak Creek	Mile 4.1 (stateline) to Origin			X	X	X	X			
Long Hungry Creek	Mile 0.0 to Origin			X	X	X	X			
Line Creek	Mile 14.2 (stateline) to Origin			X	X	X	X			
Trace Creek	Mile 0.0 to Origin			X	X	X	X			
Little Trace Creek	Mile 0.0 to Origin			X	X	X	X			
All other surface waters named and unnamed, within the Barren River Basin, with the exception of wet weather conveyances, which have not been specifically noted shall be classified				X	X	X	X			

Authority: *T.C.A. §§4-5-201, et seq. and 69-3-105.* ***Administrative History:*** *Original rule filed July 13, 1999; effective October 11, 1999. Amendment filed October 24, 2003; effective January 7, 2004. Amendment filed July 23, 2007; effective October 6, 2007.*

RULES
OF
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER POLLUTION CONTROL

CHAPTER 1200-04-05
PERMITS, EFFLUENT LIMITATIONS AND STANDARDS

TABLE OF CONTENTS

1200-04-05-.01 PURPOSE.

A permit is designed to allow the holder thereof to conduct activities listed in Section 69-3-108 of the Act only after strict compliance with conditions and applicable effluent limitations. Sections 69-3-108 (a), (b) and (c) of the Act explicitly state when a permit is required, and what activities shall be unlawful without a permit.

Authority: *T.C.A. §§4-5-201, et seq. and 69-3-101, et seq.* ***Administrative History:*** *Original rule filed November 25, 1977; effective December 26, 1977. Amendment filed May 7, 2004; effective July 21, 2004. Amendment filed May 22, 2007; effective August 5, 2007.*

1200-04-05-.02 DEFINITIONS.

All terminology not specifically defined herein shall be defined in accordance with the Water Quality Control Act, Tennessee Code Annotated (T.C.A.) §§69-3-101 through 69-3-137. When used in Rules 1200-04-05-.01 through .14, the following terms have the meanings given below unless otherwise specified:

(1) "Act" means the Water Quality Control Act, T.C.A. §§69-3-101 et seq.

(2) "Administrator" means the administrator of the United States Environmental Protection Agency, or an authorized representative.

(3) "Ammonia (as N)" means ammonia reported as nitrogen.

(4) An "Animal Feeding Operation" (AFO) is a facility that (1) stables, confines and feeds or maintains animals (other than aquatic animals) for a total of 45 days or more in any 12-month period and (2) does not sustain crops, vegetation, forage growth, or post-harvest residues in the normal growing season over any portion of the facility. Two or more AFOs under common ownership are considered to be a single AFO for the purposes of determining the number of animals at an operation, if they adjoin each other or if they use a common area or system for the disposal of wastes.

(5) An "AFO overflow" means the discharge of manure or process wastewater resulting from the filling of wastewater or manure storage structures beyond the point at which no more manure, process wastewater, or storm water can be contained by the structure.

(Rule 1200-04-05-.02, continued)

(6) An "AFO production area" includes the animal confinement area, the manure storage area, the raw materials storage area and the waste containment areas.

(a) The animal confinement area includes but is not limited to open lots, housed lots, feedlots, confinement houses, stall barns, free stall barns, milk rooms, milking centers, cowyards, barnyards, medication pens, walkers, animal walkways associated with barns or barnyards, and stables.

(b) The manure storage area includes but is not limited to lagoons, runoff ponds, storage sheds, stockpiles, under house or pit storages, liquid impoundments, static piles, and composting piles. If an AFO stores manure in the field (i.e., manure or litter piled for more than several days before land application occurs), the field storage is considered to be a production area. Note that manure or litter stored uncovered for more than two weeks is not considered to be short-term or temporary storage, and is included in the definition of production area.

(c) The raw materials storage area includes but is not limited to feed silos, silage bunkers, and organic bedding materials.

(d) The waste containment area includes but is not limited to settling basins and areas within berms and diversions which separate uncontaminated storm water.

(e) The production area also includes any on-farm egg washing or egg processing facility, and any area used in the storage, handling, treatment, or on-farm disposal of mortalities.

(7) "Animal Waste Management System" means any system used for the collection, storage, treatment, handling, transport, distribution, land application, or disposal of agricultural wastes, animal waste/wastewater, waste product, and dead animals generated by an AFO that meets or exceeds NRCS technical standards and guidelines.

(8) "Area-wide waste treatment management plan" means a plan that has been approved by the administrator pursuant to § 208 (33 U.S.C. § 1288) of the CWA, Public Law 92-500.

(9) The term "BATEA" (or "BAT") means the best available technology economically achievable as defined by EPA regulations. Effluent limitations established by this designation shall be effective in accordance with the requirements of Section 301(B)(2)(A), Federal Water Pollution Control Act, PL 92-500.

(10) The term "biological monitoring" shall mean the determination of the effects on aquatic life, including accumulation of pollutants in tissue, in receiving waters due to the discharge of pollutants (a) by techniques and procedures, including sampling of organisms representative of appropriate levels of the food chain appropriate to the volume and the physical, chemical, and biological characteristics of the effluent, and (b) at appropriate frequencies and locations.

(11) "Board" means the Water Quality Control Board.

(12) "BOD_5" means 5-day biochemical oxygen demand.

(13) The term "BPTCA" means the best practicable control technology currently available, as defined by EPA regulations.

(14) A "bypass" is defined as the intentional diversion of waste streams from any portion of a treatment facility.

(Rule 1200-04-05-.02, continued)

(15) A "calendar day" is defined as the 24-hour period from midnight to midnight or any other 24-hour period that reasonably approximates the midnight to midnight time period.

(16) "$CBOD_5$" means 5-day carbonaceous biochemical oxygen demand.

(17) A "closure plan" is a description of the steps taken after a permittable activity has ceased to prevent contamination of surface waters from the inactive site.

(18) "Commencement of construction" is the initial disturbance of soils associated with clearing, grading, or excavating activities or other construction activities.

(19) "Commissioner" means the commissioner of the Department of Environment and Conservation or the commissioner's duly authorized representative and, in the event of the commissioner's absence or a vacancy in the office of commissioner, the deputy commissioner.

(20) A "composite sample" is a combination of not less than 8 influent or effluent portions, of at least 100 ml, collected over a 24-hour period. Under certain circumstances a lesser time period may be allowed, but in no case, less than 8 hours.

(21) A "Comprehensive Nutrient Management Plan (CNMP)" is a conservation plan that is unique to animal feeding operations. It is a grouping of conservation practices and management activities which, when implemented as part of a conservation system, will help to ensure that both production and natural resource protection goals are achieved. Guidance for developing a CNMP is located in USDA-NRCS's National Planning Procedures Handbook.

(22) A "concentrated animal feeding operation" (CAFO) is an AFO that either meets the large (Class I) CAFO size criteria of Rule 1200-04-05-.14(3), the medium (Class II) criteria of Rule 1200-04-05-.14(4) or has otherwise been designated as a CAFO by the director.

(23) "Construction" means any placement, assembly, or installation of facilities or equipment (including contractual obligations to purchase such facilities or equipment) at the premises where such equipment will be used, including preparation work at such premises.

(24) The "daily maximum amount" is a limitation on the total amount of any pollutant in the discharge by weight during any calendar day.

(25) The "daily maximum concentration" is a limitation on the average concentration, in units of mass per volume, of the discharge during any calendar day. When a proportional-to-flow composite sampling device is used, the daily concentration is the concentration of that 24-hour composite; when other sampling means are used, the daily concentration is the arithmetic mean of the concentrations of equal volume samples collected during any calendar day or sampling period.

(26) The meaning of "Degradation" shall be the same as defined in Rule 1200-04-03-.04.

(27) "Department" means the Department of Environment and Conservation.

(28) "Director" means the director of the Division of Water Pollution Control.

(29) "Discharge" or "discharge of a pollutant" refers to the addition of pollutants to waters from a source.

(30) "Division" means the Division of Water Pollution Control.

(Rule 1200-04-05-.02, continued)

(31) A "dry weather overflow" is a type of sanitary sewer overflow and is defined as one day or any portion of a day in which unpermitted discharge of wastewater from the collection or treatment system other than through the permitted outfall occurs and is not directly related to a rainfall event. Discharges from more than one point within a 24-hour period shall be counted as separate overflows.

(32) "Effluent limitation" means any restriction, established by the board or the commissioner, on quantities, rates or concentrations of chemical, physical, biological, or other constituents which are discharged into waters or adjacent to waters.

(33) "Fecal coliform" means fecal coliform bacteria, an indicator of pathogenic organisms.

(34) The "geometric mean" of any set of values is the n^{th} root of the product of the individual values where n is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For the purposes of calculating the geometric mean, values of zero shall be considered to be one.

(35) A "grab sample" is a single influent or effluent sample collected at a particular time.

(36) "Hydrologic connection" means the interflow and exchange between surface impoundments or containment structures and groundwater or surface water through an underground corridor or pathway. In the context of this chapter, the purpose of prevention/reduction of hydrologic connection is to prevent/ reduce groundwater flow contact resulting in the transfer of pollutants into groundwater.

(37) "IC_{25}" refers to the inhibition concentration in which at least a 25% reduction in reproduction and/or growth in test organisms occurs.

(38) "Industrial user" means those industries identified in the standard industrial classification manual, Bureau of the Budget, 1987, as amended and supplemented, under the category "Division D - Manufacturing" and such other classes of significant waste producers as the board or commissioner deems appropriate.

(39) "Industrial wastes" means any liquid, solid, or gaseous substance, or combination thereof, or form of energy including heat, resulting from any process of industry, manufacture, trade, or business or from the development of any natural resource.

(40) The "instantaneous maximum concentration" is a limitation on the concentration, in units of mass per volume (where appropriate), of any pollutant contained in the wastewater discharge determined from a grab sample taken of the discharge at any point in time.

(41) The "instantaneous minimum concentration" is the minimum allowable concentration, in units of mass per volume (where appropriate), of a pollutant parameter contained in the wastewater discharge determined from a grab sample taken from the discharge at any point in time.

(42) "Land application area" means the land under the control of an AFO owner or operator to which manure, litter or process wastewater from the AFO production area is or may be applied.

(43) A "large CAFO" (Class I CAFO) is an AFO that confines greater than or equal to the number of animals specified in TABLE 1200-04-05-.14.1.

(44) "LC_{50}" refers to the concentration that causes at least 50 % lethality of the test organisms.

(Rule 1200-04-05-.02, continued)

(45) "Major facility" refers to a municipal or domestic wastewater treatment plant with a design capacity of 1 million gallons per day or greater; or any other facility or activity classified as such by the commissioner.

(46) The term "manure" is defined to include manure, bedding, compost and raw materials or other materials comingled with manure or set aside for disposal.

(47) "Mature dairy cow" refers to a cow that has previously given birth to a calf.

(48) A "medium CAFO" (Class II CAFO) is an AFO that confines greater than or equal to the number of animals specified in TABLE 1200-04-05-.14.1 and also meets the criteria of Rule 1200-04-05-.14(4).

(49) "Minor facility" refers to any facility or activity that is not a major facility.

(50) The "monthly average amount", is the arithmetic mean of all the measured daily discharges by weight during the calendar month when the measurements were made.

(51) The "monthly average concentration", a limitation on the discharge concentration in units of mass per volume, of any pollutant, other than bacteria, is the arithmetic mean of all the composite or grab samples collected in a one calendar-month period.

(52) "Multi-year phosphorus application" means phosphorus applied to a field in excess of crop needs and/or crop removal rates when there is no soil test recommendation for phosphorus and the Tennessee Phosphorus Index indicates manure, litter or process wastewater should be applied at the crop phosphorus removal rate. Subsequent phosphorus application is prohibited until the applied phosphorus has been removed via harvest and/or crop removal or a subsequent soil test indicates phosphorus is required. Crop phosphorus removal rates are set by University of Tennessee Extension technical guidance documents for nutrient management.

(53) "National Pollutant Discharge Elimination System (NPDES)" means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the federal CWA. The term includes an "approved program."

(54) A "natural riparian buffer" is a permanent strip of natural vegetation adjacent to a stream that contains dense vegetation made up of grass, shrubs and trees. The purpose of a natural riparian buffer is to maintain existing water quality by minimizing the risk of any potential nutrients or pollutants from leaving the field and reaching adjacent surface waters and to further prevent negative water quality impacts by providing canopy over adjacent waters.

(55) The term "new source" means any building, structure, facility, area or installation from which there is or may be a "discharge of pollutants," the construction of which commenced after the publication of state or federal regulations prescribing a standard of performance.

(56) "Nitrate (as N)" means nitrate reported as nitrogen.

(57) "Non-contact cooling water" in general practice, refers to cooling water that does not contact raw materials, materials being produced, finished product, by-products or process wastewater. For some industrial categories, other, more specialized definitions related to non-contact cooling water may also apply.

(58) "Nonpoint source pollution" occurs when precipitation moves over and through the ground, picks up and carries away pollutants and deposits them into waters of the state.

(Rule 1200-04-05-.02, continued)

(59) "NRCS" means the Natural Resources Conservation Service, an agency within the U.S. Department of Agriculture.

(60) The term "1-hour average maximum" is a limitation on the concentration in units of mass per volume, of a composite consisting of any three equal volume grab samples collected consecutively at thirty minute intervals.

(61) A "one week period" (or "calendar-week") is defined as the period from Sunday through Saturday. For reporting purposes, a calendar-week that contains a change of month shall be considered part of the latter month.

(62) "Owner or operator" means any person who owns, leases, operates, controls or supervises a source.

(63) A "quarter" is defined as any one of the following three-month periods: January 1 through March 31, April 1 through June 30, July 1 through September 30, and/or October 1 through December 31.

(64) "Permit" means an authorization, license, or equivalent control document issued by the Division of Water Pollution Control which implements the requirements of the TWQCA. "Permit" includes an NPDES "general permit."

(65) "Permit action" refers to the issuance, reissuance, revocation, denial or modification of an individual permit.

(66) "Point source" refers to any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water discharges.

(67) "Person" means an individual, association, partnership, corporation, municipality, state or federal agency, or an agent or employee thereof.

(68) "Pollutant" means sewage, industrial wastes, or other wastes.

(69) "Pollution" means such alteration of the physical, chemical, biological, bacteriological, or radiological properties of the waters of this state including, but not limited to, changes in temperature, taste, color, turbidity, or odor of the waters that will:

(a) Result or will likely result in harm, potential harm or detriment of the public health, safety, or welfare;

(b) Result or will likely result in harm, potential harm or detriment to the health of animals, birds, fish, or aquatic life;

(c) Render or will likely render the waters substantially less useful for domestic, municipal, industrial, agricultural, recreational, or other reasonable uses; or

(d) Leave or likely leave the waters in such condition as to violate any standards of water quality established by the board.

(70) "Process wastewater" means water that comes in contact with a production process, its raw materials, products or byproducts. This includes spillage, wash-water, overflow from animal watering systems or contact-cooling water. In the case of AFOs, process water would include water that contacts manure, litter, feed, milk, eggs or bedding.

(Rule 1200-04-05-.02, continued)

(71) A "rainfall event" is defined as any occurrence of rain, preceded by 10 hours without precipitation that results in an accumulation of 0.01 inches or more. Instances of rainfall occurring within 10 hours of each other will be considered a single rainfall event. Ten -year, 24-hour rainfall event, 25-year, 24-hour rainfall event, and 100-year, 24-hour rainfall event are mean precipitation events with a probable recurrence interval of once in 10 years, or 25 years, or 100 years, respectively, as defined by the National Weather Service in Technical Paper No. 40, "Rainfall Frequency Atlas of the United States," May, 1961, or equivalent regional or state rainfall probability information developed from this source.

(72) A "rationale" (or "fact sheet") is a document that is prepared when drafting an NPDES permit or permit action. It provides the technical, regulatory and administrative basis for an agency's permit decision.

(73) A "sanitary sewer overflow (SSO)" is defined as an unpermitted discharge of wastewater from the collection or treatment system other than through the permitted outfall.

(74) "Schedules of compliance" means a schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with an effluent limitation, condition of a permit, other limitation, prohibition, standard, or regulation.

(75) "Setback" means a specified distance from surface waters or potential conduits to surface waters where manure, litter, and process wastewater may not be land applied. Examples of conduits to surface waters include but are not limited to: open tile line intake structures, sinkholes, and wells.

(76) "Severe property damage" when used to consider the allowance of a bypass or SSO means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass or SSO. Severe property damage does not mean economic loss caused by delays in production.

(77) "Sewage" means water-carried waste or discharges from human beings or animals, from residences, public or private buildings, or industrial establishments, or boats, together with such other wastes and ground, surface, storm, or other water as may be present.

(78) “Sewerage system" means the conduits, sewers, and all devices and appurtenances by means of which sewage and other waste is collected, pumped, treated, or disposed.

(79) "Source" means any activity, operation, construction, building, structure, facility, or installation from which there is or may be the discharge of pollutants.

(80) "Standard of performance" means a standard for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction which the commissioner determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants.

(81) "Stream" means a surface water that is not a wet weather conveyance.

(82) "Total coliform" means all coliform bacteria.

(83) "Total dissolved solids (TDS)" means nonfilterable residue.

(84) "Toxic effluent limitation" means an effluent limitation on those pollutants or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure,

(Rule 1200-04-05-.02, continued)

ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will, on the basis of available information, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring.

(85) "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(86) "Variance" means an authorization issued to a person by the commissioner, which would allow that person to cause a water quality standard to be exceeded for a limited time period without changing the standard.

(87) "Vegetated buffer" means a narrow, permanent strip of dense perennial vegetation established parallel to the contours of and perpendicular to the dominant slope of the field for the purposes of slowing water runoff, enhancing water infiltration, and minimizing the risk of any potential nutrients or pollutants from leaving the field and reaching surface waters.

(88) The term, "washout" is applicable to activated sludge plants and is defined as loss of mixed liquor suspended solids (MLSS) of 30.00% or more from the aeration basin(s).

(89) "Watercourse" means a man-made or natural hydrologic feature with a defined linear channel which discretely conveys flowing water, as opposed to sheet-flow.

(90) "Waters" means any and all water, public or private, on or beneath the surface of the ground, which are contained within, flow through, or border upon Tennessee or any portion thereof except those bodies of water confined to and retained within the limits of private property in single ownership which do not combine or effect a junction with natural surface or underground waters.

(91) The term "water quality limited segment" means any segment where it is known that water quality does not meet applicable water quality standards, and/or is not expected to meet applicable water quality standards, even after the application of the technology-based effluent limitations required by sections 301(b) and 306 of the federal CWA.

(92) The "weekly average amount", is the arithmetic mean of all the measured daily discharges by weight during the calendar week when the measurements were made.

(93) The "weekly average concentration", a limitation on the discharge concentration in units of mass per volume of any pollutant, is the arithmetic mean of all the concentrations measured in a calendar week.

(94) "Wet weather conveyance" means, notwithstanding any other law or rule to the contrary, man-made or natural watercourses, including natural watercourses that have been modified by channelization:

(a) That flow only in direct response to precipitation runoff in their immediate locality;

(b) Whose channels are at all times above the groundwater table;

(c) That are not suitable for drinking water supplies; and

(Rule 1200-04-05-.02, continued)

(d) In which hydrological and biological analyses indicate that, under normal weather conditions, due to naturally occurring ephemeral or low flow there is not sufficient water to support fish, or multiple populations of obligate lotic aquatic organisms whose life cycle includes an aquatic phase of at least two months.

(95) A "wet weather overflow" is a type of sanitary sewer overflow and defined as an unpermitted discharge of wastewater from the collection or treatment system other than through the permitted outfall that is directly related to a specific rainfall event. Discharges occurring from multiple locations within a single rainfall event are considered separate, wet-weather overflows.

Authority: *T.C.A. §§4-5-201 et seq. and 69-3-101 et seq****. Administrative History:*** *Original Rule filed November 25, 1977; effective December 26, 1977. Amendment filed May 7, 2004; effective July 21, 2004. Amendment filed May 22, 2007; effective August 5, 2007. Repeal and new rule filed March 2, 2011; effective May 31, 2011.*

1200-04-05-.03 EXCLUSIONS

(1) The following discharges do not require NPDES permits:

(a) Any introduction of pollutants from non point-source agricultural and silvicultural activities, including storm water runoff from orchards, cultivated crops, pastures, range lands, and forest lands

(b) Return flows from irrigated agriculture.

(2) Discharges into a septic tank connected only to a subsurface drain field do not require a state issued permit under T.C.A. § 69-3-108.

Authority: *T.C.A. §§ 4-5-201 et seq. and 69-3-101 et seq.* ***Administrative History:*** *Original Rule filed November 25, 1977; effective December 26, 1977. Amendment filed May 7, 2004; effective July 21, 2004. Amendment filed May 22, 2007; effective August 5, 2007.*

1200-04-05-.04 PROHIBITIONS

(1) No permits shall be issued authorizing any of the following discharges:

(a) The discharge of any radiological, chemical, or biological warfare agent;

(b) The discharge of radioactive waste into waters (though this does not prohibit radioactivity from authorized discharges provided such discharge is in accordance with state water quality standards);

(c) Any discharge which the Secretary of the Army acting through the chief of engineers finds would substantially impair anchorage and navigation;

(d) Any discharge to which the regional administrator has objected in writing in a timely fashion according to Section 402(d)(2), federal Clean Water Act (CWA);

(e) Any discharge from a source with effluent limitations less stringent than those included in an approved area-wide waste treatment management plan;

(f) When the conditions of the permit do not provide for compliance with the applicable requirements of either the federal CWA, or the Tennessee Water Quality Control Act (TWQCA); or

(Rule 1200-04-05-.04, continued)

(g) To a new source or a new discharger, if the discharge from its construction or operation will cause or contribute to the violation of water quality standards.

Authority: *T.C.A. §§ 4-5-201 et seq. and 69-3-101 et seq.* ***Administrative History:*** *Original Rule filed November 25, 1977; effective December 26, 1977. Amendment filed May 7, 2004; effective July 21, 2004. Amendment filed May 22, 2007; effective August 5, 2007.*

1200-04-05-.05 PERMIT APPLICATION, ISSUANCE

(1) Any person who plans to engage or is engaging in any of the activities outlined in Section 69-3-108(b) or (c) of the Act must make application in writing to the commissioner for a permit, or for modification of an existing permit; except where a person discharges into a publicly owned sewerage system or into a septic tank connected only to a subsurface drain field.

(2) Applicants must complete and submit standard application forms supplied by the commissioner together with such engineering reports, plans and specifications as are required. The commissioner may subsequently request additional reasonable information as required in order to make the permit decision. If an environmental impact statement is required by federal regulation, the commissioner may require the applicant to pay for its preparation. Processing of an application shall not be completed until all requested information has been supplied. The applicant will be provided notice of completeness of the application and re-submitted material within 30 days of a determination that such material constitutes a complete application. This provision does not preclude the commissioner from later requesting additional material that subsequent to the notice of completeness is determined to be necessary for permit processing.

(3) Completed applications for new source discharges or for substantial changes in the nature, volume or frequency of existing permitted discharges must be submitted:

(a) For state permits, no later than 180 days in advance of the date on which the operation is to commence or change, unless permission for a later application date has been granted by the commissioner. Persons proposing a new operation are encouraged to submit their applications well in advance of the 180-day requirement to avoid delay.

(b) For NPDES permits, no later than 180 days in advance of the date on which the discharge is to commence or change, unless permission for a later application date has been granted by the commissioner. Persons proposing a new discharge are encouraged to submit their applications well in advance of the 180-day requirement to avoid delay.

(4) All permittees with currently effective permits shall submit a new application 180 days before the existing permit expires, except that the commissioner may grant permission to submit an application later than the deadline for submission otherwise applicable, but no later than the permit expiration date.

(5) For facilities eligible for coverage under any state-issued general permit, notices of intent must be submitted in accordance with timeframes established in the applicable general permit.

(6) Applications must be submitted in accordance with the following:

(a) For a corporation:

1. by a responsible corporate officer, i.e, a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any

(Rule 1200-04-05-.05, continued)

other person who performs similar policy- or decisionmaking functions for the corporation;

2. by a manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility to assure long term environmental compliance with environmental laws and regulations; or

3. by a person in a corporate position to which signatory authority has been delegated by a corporate officer.

(b) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively.

(c) For a municipality, state, federal, or other public agency:

1. a principal executive officer (i.e., the chief executive officer of the agency, or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency)

2. ranking elected official.

(7) The commissioner may agree with the regional administrator on the exchange of completed applications and other information.

(8) The commissioner will not authorize construction related to any such application as described in paragraphs (1) through (6) of this Rule until after the end of the public comment period as outlined in Rule 1200-04-05-.06.

Authority: *T.C.A. §§ 4-5-201 et seq. and 69-3-101 et seq.* ***Administrative History:*** *Original Rule filed November 25, 1977; effective December 26, 1977. Amendment filed May 7, 2004; effective July 21, 2004. Amendment filed May 22, 2007; effective August 5, 2007.*

1200-04-05-.06 NOTICE AND PUBLIC PARTICIPATION

(1) For an individual application for a new or expanded discharge, the applicant shall notify the public of the application by posting a sign near the point of entrance to such facility and within view of a public road. The sign shall contain provisions as specified by the commissioner. The sign shall be of such size that is legible from the public road. Also, the sign shall be maintained for at least thirty days following submittal of the application to the division.

(2) Each completed application (or request for permit action) shall be evaluated and a tentative determination of whether to issue or deny a permit action shall be made. If a tentative determination is made to issue a permit, then a draft permit shall be prepared that includes proposed effluent limitations, a proposed schedule of compliance, including interim dates and requirements, and a brief description of any other proposed special conditions. A rationale, as defined in Rule 1200-04-05-.06 (3), shall also be provided along with the draft permit. The commissioner may attach other relevant information as necessary.

(3) For each application, the commissioner shall prepare a rationale that includes or considers as appropriate:

(a) The type and quantity of wastes, fluids, or pollutants which are proposed to be or are being treated, stored, disposed of, injected, emitted, or discharged;

(Rule 1200-04-05-.06, continued)

(b) A brief summary of the basis for the draft permit conditions including references to applicable statutory or regulatory provisions and appropriate supporting references to the administrative record;

(c) Reasons why any requested variances or alternatives to required standards do or do not appear justified;

(d) The location of the discharge or activity described in the application;

(e) A quantitative and qualitative description of the discharge described in the application which includes at least the following:

1. The rate or frequency of the proposed discharge; if the discharge is continuous, the average and maximum daily flow in gallons per day or million gallons per day;

2. For thermal discharges subject to limitation, the average and maximum summer and winter temperature;

3. The average and maximum daily discharge in pounds per day and concentrations in units of mass per volume of any pollutants which are present in significant quantities or which are subject to limitations or prohibition under described provisions of the Act or this rule; and

4. Other parameters for which control may be required by the commissioner;

(f) Any calculations or other necessary explanation of the derivation of specific effluent limitations and conditions including a citation to the applicable effluent limitation guideline, performance standard, reasons why they are applicable or an explanation of how the alternate effluent limitations were developed;

(g) When the draft permit contains any of the following conditions, an explanation of the reasons why such conditions are applicable:

1. Technology-based limitations to control toxic pollutants;

2. Limitations on internal waste streams;

3. Limitations on indicator pollutants; or

4. Limitations set on a case-by-case basis;

(h) The tentative determination regarding the discharge;

(i) A brief citation, including a brief identification of the uses for which the receiving waters have been classified, of the water quality standards and effluent standards and limitations applied to the proposed discharge;

(j) A fuller description of the procedures for the formulation of final determinations than that given in the public notice including:

1. The beginning and ending dates of the 30-day comment period required by this part;

2. The address where comments will be received;

(Rule 1200-04-05-.06, continued)

3. Procedures for requesting a public hearing and the nature thereof; and

4. Any other procedures by which the public may participate in the formulation of the final determinations; and

(k) Name and telephone number of a person to contact for additional information;

(4) The commissioner shall ensure that the public is notified that the following actions have occurred:

(a) A permit application has been tentatively denied;

(b) A draft permit has been prepared;

(c) A hearing has been scheduled; or

(d) An appeal has been granted.

(5) No public notice is required:

(a) when a request for permit modification, revocation and reissuance, or termination is denied based on the commissioner's determination that the request was not justified (written notice of that denial shall be given to the requester and to the permittee.); or

(b) for minor permit modifications which include corrections of typographical errors, requiring more frequent monitoring or reporting, changing an interim compliance date or allowing a change of ownership.

(6) Public notices may describe more than one permit or permit actions.

(7) Public notice of the preparation of a draft permit (including a notice of intent to deny a permit application) required under this section shall allow at least 30 days for public comment.

(8) Public notice of a public hearing shall be given at least 30 days before the hearing. (Public notice of the hearing may be given at the same time as public notice of the draft permit, and the two notices may be combined.)

(9) In order to inform interested and potentially interested persons of the proposed discharge/activity and of the tentative determinations regarding it, public notice shall be circulated within the geographical area of the proposed discharge by the following means:

(a) for new, major NPDES or general permits and public hearings, publishing in local daily or weekly newspapers and periodicals, or, if appropriate, in a daily newspaper of general circulation;

(b) for all permits, by mailing (either electronically and/or physically) a copy of the notice to the following persons:

1. the applicant (except general permits when there is no applicant);

2. any other agency which the director knows has issued or is required to issue other permits for the same facility or activity;

3. federal and state agencies with jurisdiction over fish and wildlife resources and historic preservation;

(Rule 1200-04-05-.06, continued)

4. any affected states and Indian Tribes;

5. for NPDES only:

(i) any state agency responsible for plan development under CWA section 208(b)(2), 208(b)(4) or 303(e) and the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service;

(ii) any user identified in the permit application of a privately owned treatment works;

6. persons on a mailing list developed by:

(i) including those who request in writing to be on the list;

(ii) soliciting persons for ‘‘area lists’’ from participants in past permit proceedings in that area;

(iii) notifying the public of the opportunity to be put on the mailing list through periodic publication in the public press, newsletters, environmental bulletins, or state law journals; (The commissioner may update the mailing list from time to time by requesting written indication of continued interest from those listed. The commissioner may delete from the list the name of any person who fails to respond to such a request.)

7. to any unit of local government having jurisdiction over the area where the facility is proposed to be located;

8. to each state agency having any authority under state law with respect to the construction or operation of such facility; and

(c) if determined necessary by the commissioner, any other method reasonably calculated to give actual notice of the action in question to the persons potentially affected by it, including press releases, website postings or any other forum or medium to elicit public participation.

(10) Public notice of applications shall include the following:

(a) Name, address, phone number of the division;

(b) Name and location address of each applicant;

(c) Brief description of each applicant's activities or operations which result in the discharge described in the application or are adjacent to waters (e.g.: municipal waste treatment plant, steel manufacturing, drainage from mining activities);

(d) Name of waterway to which each discharge is made or to which each activity is adjacent and a short description of the location of each discharge on the waterway indicating whether such discharge/activity is new or existing;

(e) A statement of the tentative determination to issue or deny a permit for the discharge described in the application;

(f) A brief description of the procedures for the formulation of final determinations, including the 30-day comment period required by this section and any other means by which interested persons may influence or comment upon those determinations;

(Rule 1200-04-05-.06, continued)

(g) Address and phone number of the premises at which interested persons may obtain further information, request a copy of the draft permit, request a copy of the rationale and inspect and copy forms and related documents; and

(h) Any other information that the commissioner deems necessary.

(11) Interested persons may submit written comments on the tentative determinations within either 30 days of public notice or such greater period as the commissioner allows. All written comments submitted shall be retained and considered in the final determination. The commissioner shall give any state or interstate agencies whose waters will be affected a written explanation of the decision not to incorporate any written recommendation made by that state or agency.

(12) Interested persons may request in writing that the commissioner hold a public hearing on any application. The request must be filed within the period allowed for public comment and must indicate the interest of the party filing it and the reasons why a hearing is warranted. If there is a significant public interest in having a hearing, the commissioner shall hold one in the geographical area of the proposed discharge. Instances of doubt should be resolved in favor of holding the hearing.

(13) Special provisions regarding public notices for public hearings

(a) In addition to the public notice procedures of Rule 1200-04-05-.06 (9), notice of public hearing must be sent to all persons who received a copy of the notice or rationale for the application, any person who submitted comments on the draft permit action, all persons who requested the public hearing and any person who specifically requests a copy of the notice of hearing.

(b) Each notice of a public hearing shall include at least the following contents:

1. Name, address, and phone number of the division;

2. Name and address of each applicant whose application will be considered at the hearing;

3. Name of waterway to which each discharge is made or to which each activity is adjacent and a short description of the location of each discharge on the waterway indicating whether such discharge/activity is new or existing;

4. A brief reference to the public notice issued for each application, including identification number and date of issuance;

5. Information regarding the time and location for the hearing;

6. The purpose of the hearing;

7. A concise statement of the issues raised by the persons requesting the hearing;

8. Address and phone number of premises at which interested persons may obtain further information, request a copy of each draft permit, request a copy of each fact sheet, and inspect and copy forms and related documents;

9. A brief description of the nature of the hearing, including the rules and procedures to be followed; and

(Rule 1200-04-05-.06, continued)

10. any other information deemed necessary by the commissioner.

Authority: *T.C.A. §§ 4-5-201 et seq. and 69-3-101 et seq.* ***Administrative History:*** *Original Rule filed November 25, 1977; effective December 26, 1977. Amendment filed May 7, 2004; effective July 21, 2004. Amendment filed May 22, 2007; effective August 5, 2007.*

1200-04-05-.07 TERMS AND CONDITIONS OF PERMITS

(1) When a permit is granted it shall be subject to the provisions of T.C.A. §69-3-101 et seq., these regulations, and any special terms or conditions the commissioner determines are necessary to fulfill the purposes or enforce the provisions of that section.

(a) The terms and conditions of each permit shall insure compliance with applicable effluent limitations, including schedules of compliance, promulgated by the board. If more stringent effluent limitations are necessary to implement applicable water quality standards, to avoid conflict with an approved area-wide waste treatment management plan, or to comply with other state or federal laws or regulations, then they should be imposed in the permit.

(b) If the permit is for the discharge of pollutants from a vessel or other floating craft, the permit shall insure compliance with any applicable regulations promulgated by the Secretary of the department in which the Coast Guard is operating, establishing specifications for safe transportation, handling, carriage, storage, and stowage of pollutants.

(c) In the application of effluent standards and limitations, water quality standards, and other legally applicable requirements, the commissioner may, for each issued permit, specify average and maximum daily quantitative limitations for the level of pollutants in the authorized discharge in terms of weight (except pH, temperature, radiation, and any other pollutants not appropriately expressed by weight). The commissioner may, in addition to the specifications of daily quantitative limitations by weight, specify daily average and daily maximum concentration limits for those pollutants subject to limitation. In addition, limitations expressed in other terminology may be required when necessary to protect water quality or to describe adequate operation of a treatment facility.

(2) The following standard conditions, where appropriate, apply to NPDES permits as well as state permits issued for the treatment, collection or disposal of wastewater:

(a) Duty to comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Water Quality Control Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

(b) Duty to reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.

(c) Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems, which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

(Rule 1200-04-05-.07, continued)

(d) Permit actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. Causes for such permit action include but are not limited to the following:

1. Violation of any terms or conditions of the permit;

2. Obtaining a permit by misrepresentation or failure to disclose fully all relevant facts; and

3. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.

(e) Property rights. This permit does not convey property rights of any sort, or any exclusive privilege.

(f) Duty to provide information. The permittee shall furnish to the commissioner, within a reasonable time, any information which the commissioner may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the commissioner upon request, copies of records required to be kept by this permit.

(g) Inspection and entry. The permittee shall allow the commissioner, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the commissioner.

(h) Monitoring, records and reporting. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the director at any time.

1. Records of monitoring information shall include:

(i) the date, exact place, and time of sampling or measurements;

(ii) the individual(s) who performed the sampling or measurements;

(Rule 1200-04-05-.07, continued)

(iii) the date analyses were performed;

(iv) the individual(s) who performed the analyses;

(v) the laboratory where the analyses were performed;

(vi) the analytical techniques or methods used; and

(vii) the results of such analyses.

2. Monitoring results must be conducted according to test procedures approved under 40 CFR part 136.

3. Regular reporting (at a frequency of not less than once per year) to assure that compliance is being achieved will normally be required of the discharger in any permit as indicated below:

(i) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the commissioner. Monitoring may also be reported via electronic reporting methods established by the commissioner.

(ii) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR part 136, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or other reporting form specified by the commissioner.

(iii) Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in the permit.

(i) Signatory requirement. All applications, reports, or information submitted to the commissioner shall be signed and certified by the persons identified in Rules 1200-04-05-.05(6)(a-c).

(j) Planned changes. The permittee shall give notice to the director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

1. The alteration or addition to a permitted facility is considered a new source as defined in Rule 1200-04-05-.02;

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged; or

3. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices.

(k) Transfers. Individual permits are not transferable to any person except after notice to the commissioner, as specified below. The commissioner may require modification or revocation and reissuance of the permit to change the name of the permittee.

1. The permittee notifies the commissioner of the proposed transfer at least 30 days in advance of the proposed transfer date.

(Rule 1200-04-05-.07, continued)

2. The notice includes a written agreement between the existing and new permittees containing a specified date for transfer of permit responsibility, coverage, and liability between them.

3. The permittee must provide the following information to the commissioner in their formal notice of intent to transfer ownership:

(i) The permit number of the subject permit;

(ii) The effective date of the proposed transfer;

(iii) The name and address of the transferor;

(iv) The name and address of the transferee;

(v) The names of the responsible parties for both the transferor and transferee;

(vi) A statement that the transferee assumes responsibility for the subject permit;

(vii) A statement that the transferor relinquishes responsibility for the subject permit;

(viii) The signatures of the responsible parties for both the transferor and transferee pursuant to the signatory requirements of this part; and

(ix) A statement regarding any proposed modifications to the facility, its operations, or any other changes, which might affect the permit, limits and conditions contained in the permit.

(l) Bypass, as defined in Rule 1200-04-05-.02, is prohibited unless:

1. bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

2. there were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

3. for anticipated bypass, the permittee submits prior notice, if possible at least ten days before the date of the bypass; or

4. for unanticipated bypass, the permittee submits notice of an unanticipated bypass within 24 hours from the time that the permittee becomes aware of the bypass.

(m) A bypass that does not cause effluent limitations to be exceeded may be allowed only if the bypass is necessary for essential maintenance to assure efficient operation.

(n) Sanitary sewer overflows, including dry-weather overflows and wet weather overflows as defined in Rule 1200-04-05-.02 are prohibited.

(Rule 1200-04-05-.07, continued)

(o) In the case of any noncompliance which could cause a threat to human health or the environment, the permittee shall report the noncompliance to the commissioner within 24 hours from the time the permittee becomes aware of the circumstances. A written submission must be provided within five days of the time the permittee becomes aware of the noncompliance. The permittee shall provide the following information:

1. A description of, and the cause of the noncompliance;

2. The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and

3. The steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

(p) An upset shall constitute an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1 An upset occurred and that the permittee can identify the cause(s) of the upset;

2. The permitted facility was at the time being operated in a prudent and workman-like manner and in compliance with proper operation and maintenance procedures;

3. The permittee submitted information required under “Reporting of Noncompliance” within 24 hours of becoming aware of the upset (if this information is provided orally, a written submission must be provided within five days); and

4. The permittee complied with any remedial measures required under “Adverse Impact.”

(q) The permittee shall take all reasonable steps to minimize any adverse impact to the waters of Tennessee resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(r) The following notification requirements apply to industrial/mining dischargers and publicly owned treatment works.

1. Industrial/mining dischargers shall notify the commissioner as soon as they know or have reason to believe:

(i) That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis, of any toxic substance(s) (listed at 40 CFR 122, Appendix D, Table II and III) which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:

(I) One hundred micrograms per liter (100 ug/l);

(II) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-

(Rule 1200-04-05-.07, continued)

dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;

(III) Five times the maximum concentration value reported for that pollutant(s) in the permit application; or

(IV) The level established by the commissioner.

(ii) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(I) Five hundred micrograms per liter (500 ug/l);

(II) One milligram per liter (1 mg/L) for antimony;

(III) Ten times the maximum concentration value reported for that pollutant in the permit application; or

(IV) The level established by the commissioner.

(s) If the permit is for a discharge from a publicly owned treatment works, the permittee shall provide notice to the commissioner of the following:

1. Any new introduction of pollutants into such treatment works from a source which would be a new source subject to new source performance standards if such source were discharging pollutants;

2. Except as to such categories and classes of sources or discharges specified by the commissioner, any new introduction of pollutants into such treatment works from a source which would be required to obtain a permit if such source were discharging pollutants; and,

3. Any substantial change in volume or character of pollutants being introduced into such treatment works by a source introducing pollutants into such works at the time of issuance of the permit; and

4. Such notice shall include information on (i) the quality and quantity of effluent to be introduced into such treatment works and (ii) any anticipated impact of such change in the quantity or quality of effluent to be discharged from such publicly owned treatment works.

Authority: *T.C.A. §§ 4-5-201 et seq. and 69-3-101 et seq.* ***Administrative History:*** *Original Rule filed November 25, 1977; effective December 26, 1977. Amendment filed May 7, 2004; effective July 21, 2004. Amendment filed May 22, 2007; effective August 5, 2007.*

1200-04-05-.08 EFFLUENT LIMITATIONS AND STANDARDS

(1) Effluent standards and limitations shall be formulated in accordance with the following guidelines:

(a) For existing sources, other than publicly owned treatment works, effluent limitations shall be designed to require application of the best practicable control technology currently available and application of the best available technology economically

(Rule 1200-04-05-.08, continued)

achievable in accordance with requirements of Section 301 (b)(2)(A), Federal Water Pollution Control Act, PL 92-500.

(b) For new sources technology-based effluent limitations shall require the greatest degree of effluent reduction achievable through application of the best available demonstrated control technology, which shall be new source performance standards, if available.

(c) For publicly owned treatment works, effluent limitations shall be designed to require application of the best practicable waste treatment technology.

(d) Toxic effluent limitations shall be based on consideration of the toxicity of the pollutant, its persistence, its degradability, the usual or potential presence of the affected organisms in any waters, the importance of the affected organisms and the nature and extent of the effect of the toxic pollutant on such organisms.

(e) Pretreatment standards shall be designed to prevent the introduction into publicly owned treatment works of those pollutants that may interfere with, pass through, or otherwise be incompatible with such works.

(f) All effluent limitations or standards shall meet or exceed any minimum standards promulgated by the administrator and currently effective under the Federal Water Pollution Control Act, P.L. 92-500 as amended or any subsequent applicable acts.

(g) All pollutants shall receive treatment or corrective action to insure compliance with effluent limitations established by the U.S. Environmental Protection Agency pursuant to Sections 301 and 302 and standards of performance for new sources pursuant to Section 306, effluent limitations and prohibitions and pretreatment standards pursuant to Section 307 of the Federal Water Pollution Control Act as amended, PL 92-500; also to insure compliance with any approved water quality standard, or avoid conflict with an approved area-wide waste treatment management plan prepared according to Section 208 of the federal law.

(h) Any schedules of compliance under this Rule shall require compliance as soon as possible, but not later than the applicable statutory deadline under the federal law.

(i) Best management practices to control or abate the discharge of pollutants when numeric effluent limitations are infeasible and the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of TWQCA.

(j) When a permit is renewed or reissued, effluent limitations, standards or conditions must be at least as stringent as the effluent limitations, standards, or conditions in the previous permit unless:

1. The circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance;

2. Material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation;

3. Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance; or

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4. Technical mistakes or mistaken interpretations of law were made in issuing the permit;

5. A less stringent effluent limitation is necessary because of events over which the permittee has no control and for which there is no reasonably available remedy; or

6. The permittee has installed the treatment facilities required to meet the effluent limitations in the previous permit and has properly operated and maintained the facilities but has nevertheless been unable to achieve the previous effluent limitations, in which case the limitations in the reviewed, reissued, or modified permit may reflect the level of pollutant control actually achieved.

7. In no event may a permit with respect to which this Rule applies be renewed, reissued, or modified to contain an effluent limitation which is less stringent than required by effluent guidelines in effect at the time the permit is renewed, reissued, or modified.

8. In no event may such a permit to discharge into waters be renewed, issued, or modified to contain a less stringent effluent limitation if the implementation of such limitation would result in a violation of a water quality standard.

(k) All permit effluent limitations, standards and prohibitions shall be established for each outfall or discharge point of the permitted facility, except as otherwise provided for BMPs where limitations on effluent or internal waste streams are infeasible.

(l) In the case of POTWs or domestic wastewater treatment plants, permit effluent limitations, standards, or prohibitions shall be calculated based on design flow.

(m) For continuous discharges, all permit effluent limitations, standards, and prohibitions shall be expressed as maximum daily, weekly average (for POTWs only) and monthly average, unless impracticable.

(n) Non-continuous discharges shall be limited in terms of frequency, total mass, maximum rate of discharge and mass or concentrations of specified pollutants, as appropriate.

(o) Any permit limitations, standards, or prohibitions based on production shall be based upon a reasonable measure of actual production.

1. For new sources or dischargers, actual production shall be estimated from projected production.

2. The time period of the measure of production shall correspond to the time period of the resulting permit limits. For example, monthly production levels shall be used to calculate monthly average permit limits.

(p) All permit effluent limitations, standard, or prohibitions for a metal shall be expressed as “total recoverable metal” unless a promulgated effluent guideline specifies otherwise.

(q) When permit effluent limitations or standards imposed at the point of discharge are impractical or infeasible, effluent limitations or standards for discharges of pollutants may be imposed on internal waste streams before mixing with other waste streams or cooling water streams. In those instances, the monitoring required shall also be applied

(Rule 1200-04-05-.08, continued)

to the internal waste streams. Limits on internal waste streams will be imposed only when the rationale sets forth the exceptional circumstances which make such limitations necessary, such as when the final discharge point is inaccessible (for example, under water), the wastes at the point of discharge are so diluted as to make monitoring impracticable, or the interferences among pollutants at the point of discharge would make detection or analysis impracticable.

(r) Instantaneous maximum concentration or similar limitations may be imposed in permits when:

1. toxic or harmful parameters are present in such significant amounts or concentrations as to represent a threat to the possibility of maintaining receiving waters in accordance with established classifications; and

2 the discharge is characterized as irregular, such as high peak, short duration flow.

(s) Any discharge or activity authorized by a permit which is not a minor discharge or facility, or the regional administrator requests, in writing, be monitored, or contains a toxic pollutant for which an effluent standard has been established shall be monitored by the permittee for the following:

1. Flow (in million gallons per day); and

2. Any of the following pollutants:

(i) Pollutants (either directly or indirectly through the use of accepted correlation coefficients or equivalent measurements determined to be applicable to the discharge to which they are applied) which are subject to reduction or elimination under the terms and conditions of the permit;

(ii) Pollutants which the commissioner finds, on the basis of information available, could have a significant impact on the quality of waters;

(iii) Pollutants specified by the administrator, in regulations issued pursuant to the Federal Water Pollution Control Act, as subject to monitoring; and,

(iv) Any pollutants in addition to the above, which the regional administrator or the commissioner request be monitored.

(t) If a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established for a toxic pollutant which is present in the permittee's discharge and such standard or prohibition is more stringent than any limitation upon such pollutant in the permit, the commissioner shall revise or modify the permit in accordance with established procedure to include the toxic effluent standard or prohibition and so notify the permittee.

(2) All discharges authorized by the permit shall be consistent with the terms and conditions of the permit; that facility expansions, production increases, or process modifications which result in new or increased discharges of pollutants must be reported by submission of a new application or, if such discharge does not violate effluent limitations specified in the permit, by submission to the commissioner of notice of such new or increased discharges of pollutants; that the discharge of any pollutant more frequently than or at a level in excess of that identified and authorized by the permit shall constitute a violation of the terms and conditions of the permit.

(Rule 1200-04-05-.08, continued)

Authority: *T.C.A. §§ 4-5-201 et seq. and 69-3-101 et seq.* ***Administrative History:*** *Original Rule filed November 25, 1977; effective December 26, 1977. Amendment filed May 7, 2004; effective July 21, 2004. Amendment filed May 22, 2007; effective August 5, 2007.*

1200-04-05-.09 TECHNOLOGY-BASED EFFLUENT LIMITATIONS

(1) The U.S. Environmental Protection Agency has adopted effluent limitations and guidelines for existing sources and standards of performance for new sources pursuant to Section 301, 304, and 306 of the Federal Water Pollution Control Act as amended, PL 92-500. Permits for discharges will contain limitations and standards in accordance with these guidelines, when such are in effect unless more stringent limits are necessary to maintain designated uses. The commissioner has authority pursuant to T.C.A. §69-3-108 and Rule 1200-4-3, to require wastewater treatment, independent of federal guidelines. The commissioner may require a set of effluent limitations in each permit, which will indicate adequate operation or performance of treatment units used and which will appropriately limit those harmful parameters present in the wastewater. In the absence of federal guidelines, treatment units will be required to achieve the following as maximum effluent limitations when such parameters are present as a result of processes causing the contamination or discharges:

(a) Municipal and domestic wastewater treatment plants shall be limited by application of monthly average concentrations, weekly average concentrations, daily maximum amounts, and daily maximum concentrations of the five-day, 20°C biochemical or carbonaceous biochemical oxygen demand (BOD_5 or $CBOD_5$) and suspended solids.

In some cases, the daily maximum amount may be replaced by a minimum daily percent removal requirement. Limitations on chlorine residual may be required to prevent harmful amounts of chlorine discharge to the receiving waters. In addition, where harmful materials are acquired in a collection system, effluent limitations applicable to the treatment system will be required for such parameters.

1. Conventional Secondary Treatment Plants

Parameter	Monthly Average (mg/l)	Weekly Average (mg/l)	Daily Maximum (mg/l)	Monthly Average % Removal
BOD_5 or $CBOD_5$	30/25	40/35	45/40	85
TSS	30	40	45	85

The concentration of settleable solids shall not exceed 1.0 ml/l as measured by the standard one-hour Imhoff cone test.

2. Domestic waste stabilization lagoons

Parameter	Monthly Average (mg/l)	Weekly Average (mg/l)	Daily Maximum (mg/l)	Monthly Average % Removal
BOD_5 /$CBOD_5$	45/40	50/45	65/60	65
TSS	100	110	120	n/a

3. Non-discharging systems

Facilities that treat municipal and/or domestic wastewater, but do not discharge into waters of the state, must be limited in terms of BOD_5 and other pollutants

(Rule 1200-04-05-.09, continued)

such as NH_3-N, NO_3-N, and fecal coliform as necessary. Limits shall be set in such a way to assure efficient operation and protection of groundwater.

(b) Industrial discharges

1. For industrial discharges with applicable federal effluent guidelines, technology-based effluent limitations and standards in accordance with those guidelines shall be applied.

2. For industrial discharges without applicable federal effluent guidelines, best professional judgment should be employed to determine appropriate effluent limitations and standards.

Authority: *T.C.A. §§ 4-5-201 et seq. and 69-3-101 et seq.* ***Administrative History:*** *Original Rule filed November 25, 1977; effective December 26, 1977. Amendment filed May 7, 2004; effective July 21, 2004. Amendment filed May 22, 2007; effective August 5, 2007.*

1200-04-05-.10 WATER QUALITY-BASED PERMITTING

(1) Effluent limitations on toxic substances will be required in accordance with the General Water Quality Criteria, Rule 1200-4-3, using the LC_{50} and/or IC_{25} criteria and appropriate application factor for each toxic parameter.

(2) Appropriate limitations on organic related and other oxygen demanding parameters will be required in any permit to insure adequate dissolved oxygen in the state's waters in accordance with the General Water Quality Criteria, Rule 1200-4-3.

(3) When a treatment process greater than BAT or conventional unit treatment processes is required by application of these rules, a set of effluent limitations will be required in any permit which will completely describe expected results of such treatment process.

(4) Effluent limitations may be required in any permits to insure compliance with the Antidegradation Statement, Rule 1200-4-3-.06.

Authority: *T.C.A. §§ 4-5-201 et seq. and 69-3-101 et seq.* ***Administrative History:*** *Original Rule filed November 25, 1977; effective December 26, 1977. Amendment filed May 7, 2004; effective July 21, 2004. Amendment filed May 22, 2007; effective August 5, 2007.*

1200-04-05-.11 DURATION AND REISSUANCE OF PERMITS

(1) Each issued permit shall have a fixed term not to exceed 5 years, which shall be stated in the permit.

(2) Any permittee who wishes to continue to discharge or operate after the expiration date of the permit must apply for reissuance in accordance with the provisions of Rule 1200-04-05-.05(5). Timely receipt of a completed application for an NPDES or state operating permit is necessary for permit continuance. However, the commissioner, at his or her discretion, may accept alternative submittal materials.

(3) The commissioner shall review the permit and other available information to insure:

(a) That the permittee is in compliance with or has substantially complied with all terms, conditions, requirements, and schedules of compliance of the expiring or expired permit;

(Rule 1200-04-05-.11, continued)

(b) That the commissioner has up-to-date information on the permittee's production levels, permittee's waste treatment practices, nature, contents, and frequency of permittee's discharge, pursuant to monitoring records and reports submitted to the commissioner by the permittee; and

(c) That the discharge is consistent with applicable effluent standards and limitations, water quality standards, and other legally applicable requirements including any additions to, or revisions or modifications of such effluent standards and limitations, water quality standards, or other legally applicable requirements during the term of the permit.

Authority: *T.C.A. §§ 4-5-201 et seq. and 69-3-101 et seq.* ***Administrative History:*** *Original Rule filed November 25, 1977; effective December 26, 1977. Amendment filed May 7, 2004; effective July 21, 2004. Amendment filed May 22, 2007; effective August 5, 2007.*

1200-04-05-.12 APPEALS

(1) Permittees, applicants for permits and aggrieved persons meeting the criteria of Rules 1200-04-05-.12(3)(a) – (d) who disagree with the denial, terms, or conditions of a permit are entitled to review of the commissioner's decision by the Water Quality Control Board (the board) pursuant to Section 69-3-105(i) and -110 of the Act.

(2) Permittees and applicants for permits must specify what terms or conditions they are appealing in their petition. Only those terms or conditions specified in the petition will be considered subject to appeal. For permit modifications only those terms that were the subject of the modification may be appealed.

(3) In order to be entitled to a review of the commissioner's permit decision, permittees, applicants and aggrieved persons must:

(a) have submitted a written comment during the public comment period on the permit;

(b) have engaged in other direct communication with the department regarding the proposed permit action during the comment period;

(c) given testimony at a formal public hearing on the permit; or

(d) attended a public hearing as evidenced by completion of a Department of Environment and Conservation Record of Attendance Card or other method as determined by the department.

(4) The basis for the appeal for aggrieved persons may only include issues that:

(a) were provided to the commissioner in writing during the public comment period;

(b) were provided in testimony at a formal public hearing on the permit; or

(c) arise from any material change to conditions in the final permit from those in the draft, unless the material change has been subject to additional opportunity for public comment.

(5) All petitions for permit appeals must be filed within thirty days after the date that public notice of the permit issuance, denial, or modification is given by way of distribution of the notice of determination to persons who meet the criteria of Rule 1200-04-05-.12(3).

Authority: *T.C.A. §§ 4-5-201 et seq., and 69-3-101 et seq.* ***Administrative History:*** *Original Rule filed November 25, 1977; effective December 26, 1977. Amendment filed May 7, 2004; effective July 21, 2004. Amendment filed May 22, 2007; effective August 5, 2007.*

1200-04-05-.13 ADOPTION OF EPA-ISSUED PERMITS

(1) The commissioner may adopt and enforce permits that have been previously issued by the United States Environmental Protection Agency under the National Pollutant Discharge Elimination System established by Public Law 92-500. When such NPDES permit previously issued by the Environmental Protection Agency has been adopted by the State of Tennessee, any permit issued previously for the same discharge by the commissioner shall become null and void. In any instance where the commissioner has not adopted an existing NPDES permit and a discharge is not authorized by a Tennessee permit, the commissioner may require the discharger to apply for a Tennessee permit and otherwise comply with Tennessee law. Permits previously issued pursuant to Section 69-3-108 of the Act shall remain in full force and effect until replaced by an NPDES Permit transferred to the state or issued by the state.

Authority: *T.C.A. §§ 4-5-201 et seq. and 69-3-101 et seq.* ***Administrative History:*** *Original Rule filed November 25, 1977; effective December 26, 1977. Amendment filed May 7, 2004; effective July 21, 2004. Amendment filed May 22, 2007; effective August 5, 2007.*

1200-04-05-.14 ANIMAL FEEDING OPERATIONS

(1) In addition to the applicable provisions of Rules 1200-04-05-.01 through 1200-04-05-.13, CAFOs are also subject to the provisions of this Rule.

(2) All operations defined as CAFOs must seek permit coverage as follows:

(a) CAFOs meeting or exceeding the size thresholds in column 2 of TABLE 1200-04-05-.14.1 that have discharged or are designed, constructed, operated or maintained such that a discharge will occur must obtain coverage under an NPDES permit.

(b) All other CAFOs must obtain coverage under a State Operating Permit.

(3) AFOs meeting or exceeding the size thresholds in column 2 of TABLE 1200-04-05-.14.1 are considered large (Class I) CAFOs.

(4) AFOs within the range given in column 3 of TABLE 1200-04-05-.14.1 are considered medium (Class II) CAFOs if any of the following conditions are met:

(a) pollutants are discharged through a discrete, discernable conveyance to waters of the state; or

(b) pollutants are discharged to waters of the state that come into direct contact with the animals confined in the operation; or

(c) the AFO is located on a waterbody that has been identified by the department as being impaired for nutrients or pathogens; or

(d) the AFO began operation on or after May 1, 1999; or

(e) the AFO expanded its operation so that it falls within the range given in column 3 of TABLE 1200-04-05-.14.1 on or after July 21, 2004.

(Rule 1200-04-05-.14, continued)

TABLE 1200-04-05-.14.1

Mature Animal Type	Class I (Large CAFO	Class II Medium CAFO
Dairy Cows	700+	200 – 699
Cattle	1,000+	300 – 999
Swine	2,500+ (≥ 55 lbs) 10,000+ < 55 lbs	750 – 2,499 (≥ 55 lbs) 3,000 – 9,999 < 55 lbs
Chickens (liquid waste management)	30,000+	9,000 – 29,999
Chickens (dry waste management*)	125,000+ (non-layers) 82,000+ (layers)	37,500 -124,999 (non-layers) 25,000 – 81,999 (layers)
Horses	500+	150 – 499
Sheep/lambs	10,000+	3,000 – 9,999
Turkeys	55,000+	16,500 – 54,999
Ducks	5,000+ (liquid waste management) 30,000+ (dry waste Management*)	1,500 – 4,999 (liquid waste management) 10,000 – 29,999 (dry waste management)

* dry waste management refers to systems where continuously overflowing watering systems are not used and birds are raised in an enclosed building with earthen or concrete floors spread with layer of sawdust, wood shavings, rice hulls, or chopped straw

(5) Other AFOs may be designated as CAFOs at the discretion of the director. Factors to be considered in this determination include the AFO's size, the amount of waste reaching waters of the state, the location of the AFO and the means of waste conveyance to waters of the state.

(6) All CAFOs must submit application information in accordance with Rule 1200-04-05-.05(2).

(a) All CAFOs must submit application information to the Tennessee Department of Agriculture and the Department of Environment and Conservation.

(b) In addition to the application requirements of Rule 1200-04-05-.05(2), CAFOs must submit, at the time of application:

1. A closure/ rehabilitation plan for the waste system storage/treatment structure(s) that meets or exceeds NRCS technical standards and guidelines, and at a minimum, addresses maintenance of the facility until proper closure is completed and includes a proposed schedule for closure not to exceed 360 days; and

2. A nutrient management plan as outlined in Rule 1200-04-05-.14(10)(a).

(7) The following deadlines apply for AFOs defined as CAFOs:

(a) Operations that were defined as CAFOs prior to April 14, 2003, must have sought coverage under a permit, as of April 14, 2003.

(b) Existing operations defined as CAFOs only as of April 14, 2003, or existing operations defined as CAFOs as of July 21, 2004, must have sought coverage under a permit no later than February 13, 2006.

(c) CAFOs constructed after April 14, 2003, that are not subject to new source performance standards must have sought coverage under a permit no later than 180 days prior to the time that the CAFO commences operation. CAFOs seeking coverage

(Rule 1200-04-05-.14, continued)

under a general permit must do so in accordance with the notice of intent timeframes established for the appropriate general permit.

(d) AFOs that make changes after April 14, 2003, to their operations that result in becoming defined as CAFOs for the first time, yet are not subject to new source performance standards must seek coverage under a permit no later than 90 days after becoming defined as a CAFO. CAFPs seeking coverage under a general permit must do so in accordance with the notice of intent timeframes established for the appropriate general permit.

(e) New sources must seek to obtain coverage under a permit at least 180 days prior to the time that the CAFO commences operation. CAFOs seeking coverage under a general permit must do so in accordance with the notice of intent timeframes established for the appropriate general permit.

(f) AFOs designated as CAFOs by the director must seek to obtain coverage under a permit no later than 90 days after receiving notice of the designation.

(8) CAFOs must comply with the permit reissuance requirements of Rule 1200-04-05-.05(4) and must maintain permit coverage until such time as the CAFO demonstrates to the satisfaction of the director that it no longer meets the definitions set forth in Rule 1200-04-05-.14(3), (4) and (5) and there no longer remains the potential for a discharge of manure, litter or associated process wastewater, other than agricultural stormwater from land application areas.

(9) CAFOs must have a nutrient management plan developed, approved and have all measures, structures, etc., in place to fully implement upon the date of permit coverage.

(10) Any permit issued to a CAFO must include:

(a) For all CAFOs, a requirement to develop, submit for state approval, implement and keep on site a site-specific nutrient management plan that:

1. Includes best management practices and procedures necessary to implement applicable effluent limitations and standards;

2. Ensures adequate storage of manure, litter, and process wastewater including procedures to ensure proper operation and maintenance of the storage facilities;

3. Ensures proper management of mortalities (i.e., dead animals) so that they are not disposed of in a liquid manure, storm water, or process wastewater storage or treatment system that is not specifically designed to treat animal mortalities as outlined in NRCS Conservation Practice Standard 316, October 2002 (or most recent) and/or the NRCS Animal Waste Handbook;

4. Ensures that clean water is diverted, as appropriate, from the production area;

5. Prevents direct contact of confined animals with waters of the state;

6. Ensures that chemicals and other contaminants handled on-site are not disposed of in any manure, litter, process wastewater, or storm water storage or treatment system unless specifically designed to treat such chemicals and other contaminants;

7. Identifies appropriate site specific conservation practices to be implemented, including as appropriate buffers or equivalent practices, to control runoff of

(Rule 1200-04-05-.14, continued)

pollutants to waters of the state (these practices must meet minimum standards set in the NRCS Field Office Practice Standard and/or the NRCS Animal Waste Handbook);

8. Identifies protocols for appropriate testing of manure, litter, process wastewater, and soil that are approved by the University of Tennessee testing lab for Tennessee conditions;

9. Establishes protocols to land apply manure, litter or process wastewater in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter or process wastewater (dairy, cattle, swine, poultry and veal CAFOs that land apply manure, litter, or process wastewater must also comply with the provisions of Rule 1200-04-05-.14(11));

10. Identifies specific records that will be maintained to document the implementation and management of the minimum elements described in parts 1 through 9 of this subparagraph; and

11. Incorporates the requirements of Rule 1200-04-05-.14(11)(a).

(b) A requirement that the permittee must create, maintain for five years, and make available to the director, upon request, the following records:

1. All applicable records identified in part (b)10 of this paragraph;

2. A copy of the CAFO's site-specific nutrient management plan;

3. Records documenting the following visual inspections:

(i) Weekly inspections of all storm water diversion devices, runoff diversion structures and devices channeling contaminated storm water to the wastewater and manure storage and containment structure;

(ii) Daily inspections of water lines, including drinking or cooling water lines; and

(iii) Weekly inspections of the manure, litter, and process wastewater impoundments noting the liquid level in the impoundments;

4. Weekly records of the depth of the manure and process wastewater in any open surface liquid impoundment as indicated by the required depth marker which indicates the minimum capacity necessary to contain the runoff and direct precipitation of the 25-year, 24-hour rainfall event. In the case of swine or poultry CAFOS that are new sources the depth marker must indicate minimum capacity necessary to contain the runoff and direct precipitation associated with the design storm used for sizing the impoundment;

5. Records documenting any corrective actions taken (if deficiencies are not corrected within 30 days of notice of deficiency, the records must include an explanation of the factors preventing immediate correction);

6. Records of mortalities management and practices used to comply with the nutrient management plan;

(Rule 1200-04-05-.14, continued)

7. Records documenting the current design of any manure or litter storage structures, including volume for solids accumulation, design treatment volume, total design volume, and approximate number of days of storage capacity;

8. Records of the date, time, and estimated volume of any overflow;

9. Expected and actual crop yields;

10. The date(s) manure, litter, or process waste water is applied to each field;

11. Weather conditions at time of application and for 24 hours prior to and following application;

12 Test methods used to sample and analyze manure, litter, process waste water, and soil;

13. Results from manure, litter, process waste water, and soil sampling;

14. Explanation of the basis for determining manure application rates, as provided in the technical standards established by the NRCS or as otherwise approved by the director or the Tennessee Department of Agriculture and consistent with applicable state and federal rules;

15. Calculations showing the total nitrogen and phosphorus to be applied to each field, including sources other than manure, litter, or process wastewater;

16. Total amount of nitrogen and phosphorus actually applied to each field, including documentation of calculations for the total amount applied;

17. The method used to apply the manure, litter, or process wastewater; and

18. Date(s) of manure application equipment inspection and calibration;

(c) A requirement that prior to transferring manure, litter or process wastewater to a 3'' party, CAFOs must provide the recipient of the manure, litter or process wastewater with the most current nutrient analysis (consistent with 40 CFR § 412), and ensure that the 3'[1] party signs the Agreement for the Removal of Litter, Manure and/or Process Wastewater from an AFO using the form in Appendix A of paragraph (16) of this Rule;

1. Large CAFOs must provide the recipient of the manure, litter or process wastewater with the most current nutrient analysis (consistent with 40 CFR Part 412 and approved by the University of Tennessee Extension), and ensure that the 3rd party signs the Agreement for the Removal of Litter, Manure and/or Process Wastewater from an AFO using the form in Appendix A of paragraph (16) of this Rule;

2. All other CAFOs must provide the recipient of the manure, litter or process wastewater with the most current nutrient analysis (consistent with 40 CFR Part 412 and approved by the University of Tennessee Extension), and ensure that the 3rd party signs the Agreement for the Removal of Litter, Manure and/or Process Wastewater from an AFO using the form in Appendix A of paragraph (16) of this Rule only if the CAFO is transferring more than 100 tons of manure, litter or process wastewater to a 3rd party;

(Rule 1200-04-05-.14, continued)

(d) A requirement to retain records of the date, recipient name and address, and approximate amount of manure, litter or process wastewater transferred to a 3'[1] party using the form in Appendix B of paragraph (16) of this Rule;

1. Large CAFOs must retain for five years records of the date, recipient name and address, and approximate amount of manure, litter or process wastewater transferred to a 3rd party using the form in Appendix B of paragraph (16) of this Rule;

2. All other CAFOs must retain for five years records of the date, recipient name and address, and approximate amount of manure, litter or process wastewater transferred to a 3rd party receiving more than 100 tons of manure, litter or process wastewater using the form in Appendix B of paragraph (16) of this Rule;

(e) A requirement that CAFOs submit to TDEC, an annual report between January 1 and February 15 that includes:

1. The number and type of animals on site whether in open confinement or housed under roof;

2. Estimated amount of total manure, litter and process wastewater generated by the CAFO in the previous calendar year (tons/gallons);

3. Estimated amount of total manure, litter and process wastewater transferred to a 3'' party by the CAFO in the previous calendar year (tons/ gallons);

4. Total number of acres for land application covered by the nutrient management plan;

5. Total number of acres under control of the CAFO that were used for land application of manure, litter and process wastewater in the previous calendar year;

6. A summary of all manure, litter and process wastewater discharges to waters of the state from the production area that have occurred in the previous calendar year, including date, time, and approximate volume;

7. A statement indicating whether the current version of the CAFO's nutrient management plan was developed or approved by a certified nutrient management planner:

8. The actual crop(s) planted and actual yield(s) for each field;

9. The actual nitrogen and phosphorus content of the manure, litter and process wastewater;

10. The results of calculations to determine the maximum amount of manure, litter and process wastewater to be land applied and the data used in the calculations;

11. The actual amount of manure, litter and process wastewater applied during the previous 12 months;

12. The results of any soil tests for nitrogen and phosphorus conducted in the previous 12 months; and

13. The amount of any supplemental fertilizer applied during the previous 12 months.

(Rule 1200-04-05-.14, continued)

(f) Provisions that require compliance with the terms of the CAFO's site-specific nutrient management plan such that the plan is enforceable through the permit. The terms of the nutrient management plan are the information, protocols, best management practices, and other conditions in the nutrient management plan determined by the director to be necessary to implement the nutrient management plan. For NPDES permits, the terms of the nutrient management plan, with respect to protocols that ensure appropriate agricultural utilization of the nutrients in the manure, litter or process wastewater, must include the fields available for land application; field-specific rates of application properly developed, through either the linear approach or the narrative approach; and any timing limitations identified in the nutrient management plan concerning land application on the fields available for land application.

1. Linear approach. An approach that expresses rates of application as pounds of nitrogen and phosphorus, according to the following specifications:

(i) The terms include:

(I) Maximum application rates from manure, litter, and process wastewater for each year of permit coverage, for each crop identified in the nutrient management plan, in terms of total nitrogen and phosphorus, in pounds per acre, per year, for each field to be used for land application;

(II) The outcome of the field-specific assessment of the potential for nitrogen and phosphorus transport from each field as described in Rule 1200-04-05-.14(11)(a)1;

(III) The crops to be planted in each field or any other uses of a field such as pasture or fallow fields; the realistic yield goal for each crop or use identified for each field;

(IV) The nitrogen and phosphorus recommendations as recommended by the University of Tennessee Extension for each crop or use identified for each field;

(V) Credits for all residual nitrogen in the field that will be plant available as recommended by the University of Tennessee Extension;

(VI) Consideration of multi-year phosphorus application in accordance with Rule 1200-04-05-.14(11)(a)2;

(VII) An accounting of all other additions of plant available nitrogen and phosphorus to the field;

(VIII) The form and source of manure, litter, and process wastewater to be land-applied;

(IX) The timing and method of land application; and

(X) The methodology by which the nutrient management plan accounts for the amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be applied as described in Rule 1200-04-05-.14(10)(a)8 and Rule 1200-04-05-.14(11)(b).

(Rule 1200-04-05-.14, continued)

(ii) Large CAFOs that use this approach must calculate the maximum amount of manure, litter, and process wastewater to be land applied at least once each year using the results of the most recent representative manure, litter, and process wastewater tests for nitrogen and phosphorus taken within 12 months of the date of land application.

2. Narrative rate approach. An approach that expresses rates of application as a narrative rate of application that results in the amount, in tons or gallons, of manure, litter, and process wastewater to be land applied, according to the following specifications:

(i) The terms include:

(I) Maximum amounts of nitrogen and phosphorus derived from all sources of nutrients, for each crop identified in the nutrient management plan, in terms of total nitrogen and phosphorus, in pounds per acre, for each field, and certain factors necessary to determine such amounts.

(II) The outcome of the field-specific assessment of the potential for nitrogen and phosphorus transport from each field as described in Rule 1200-04-05-.14(11)(a)1;

(III) The crops to be planted in each field or any other uses such as pasture or fallow fields (including alternative crops identified in subpart (iii) of this part;

(IV) The realistic yield goal for each crop or use identified for each field; and

(V) The nitrogen and phosphorus recommendations as recommended by the University of Tennessee Extension for each crop or use identified for each field for each crop or use identified for each field.

(ii) The terms include the methodology by which the nutrient management plan accounts for the following factors when calculating the amounts of manure, litter, and process wastewater to be land applied:

(I) Results of soil tests conducted in accordance with protocols identified in part (a)8 of this paragraph;

(II) Credits for all residual nitrogen in the field that will be plant available as recommended by the University of Tennessee;

(III) The amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be applied;

(IV) Consideration of multi-year phosphorus application in accordance with Rule 1200-04-05-.14(11)(a)2;

(V) Accounting for all other additions of plant available nitrogen and phosphorus to the field;

(VI) The form and source of manure, litter, and process wastewater;

(Rule 1200-04-05-.14, continued)

(VII) The timing, except as described in subpart (f)2(iv) of this paragraph and method of land application; and

(VIII) Volatilization of nitrogen and mineralization of organic nitrogen.

(iii) The terms of the nutrient management plan include alternative crops identified in the CAFO's nutrient management plan that are not in the planned crop rotation. Where a CAFO includes alternative crops in its nutrient management plan, the crops must be listed by field, in addition to the crops identified in the planned crop rotation for that field, and the nutrient management plan must include realistic crop yield goals and the nitrogen and phosphorus recommendations as recommended by the University of Tennessee for each crop. Maximum amounts of nitrogen and phosphorus from all sources of nutrients and the amounts of manure, litter, and process wastewater to be applied must be determined in accordance with the methodology described in items (ii)(I) through (VIII) of this part.

(iv) For CAFOs using this approach, the following projections must be included in the nutrient management plan submitted to the director, but are not terms of the nutrient management plan: The CAFO's planned crop rotations for each field for the period of permit coverage; the projected amount of manure, litter, or process wastewater to be applied; projected credits for all nitrogen in the field that will be plant available; consideration of multi-year phosphorus application; accounting for all other additions of plant available nitrogen and phosphorus to the field; and the predicted form, source, and method of application of manure, litter, and process wastewater for each crop. Timing of application for each field, insofar as it concerns the calculation of rates of application, is not a term of the nutrient management plan.

(v) CAFOs that use this approach must calculate maximum amounts of manure, litter, and process wastewater to be land applied at least once each year using the methodology required in subpart (ii) of this part before land applying manure, litter and process wastewater and must rely on the following data:

(I) A field-specific determination of soil levels of nitrogen and phosphorus, including, for nitrogen, a concurrent determination of nitrogen that will be plant available consistent with the methodology required by subpart (ii) of this part, and for phosphorus, the results of the most recent soil test conducted in accordance with soil testing requirements approved by the commissioner; and

(II) The results of most recent representative manure, litter, and process wastewater tests for nitrogen and phosphorus taken within 12 months of the date of land application, in order to determine the amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be applied.

(g) Changes to a nutrient management plan.

1. Any NPDES permit issued to a CAFO must require the following procedures when a CAFO owner or operator makes changes to the CAFO's nutrient management plan previously submitted to the director:

(Rule 1200-04-05-.14, continued)

(i) The CAFO owner or operator must provide the director with the most current version of the CAFO's nutrient management plan and identify changes from the previous version, except that the results of calculations made in accordance with the requirements of subparts (f)1(ii) and (f)2(v) of this paragraph are not considered to be changes to the nutrient management plan subject to the requirements of this paragraph.

(ii) The director must review the revised nutrient management plan to ensure that it meets the requirements of this paragraph and applicable effluent limitations and standards and must determine whether the changes to the nutrient management plan include revision to the terms of the nutrient management plan as set forth in subparagraph (f) of this paragraph. If the terms of the nutrient management plan are not revised, the director must notify the CAFO owner or operator and upon such notification the CAFO may implement the revised nutrient management plan. If the terms of the nutrient management plan are revised, the director must determine whether such changes are substantial changes as described in part 2 of this subparagraph.

(iii) If the director determines that the changes to the terms of the nutrient management plan are not substantial, the director must make the revised nutrient management plan publicly available and include it in the permit record, and inform the public of any changes to the terms of the nutrient management plan.

(iv) If the director determines that the changes to the terms of the nutrient management plan are substantial, the director must notify the public and make the proposed changes and the information submitted by the CAFO owner or operator available for public review and comment. The process for public notice and participation must follow the procedures applicable to draft permits set forth in Rule 1200-04-05-.06. The director must consider all significant comments received during the comment period and require the CAFO owner or operator to further revise the nutrient management plan if necessary. Once the director approves the revised terms of the nutrient management plan, the director must issue a notice of determination that addresses all comments received and notifies the owner or operator and the public of the final decision concerning revisions to the nutrient management plan.

2. Substantial changes to the terms of a nutrient management plan incorporated as terms and conditions of a permit include, but are not limited to:

(i) Addition of new land application areas not previously included in the CAFO's nutrient management plan or in the terms of a nutrient management plan incorporated into an existing NPDES permit. If the CAFO owner or operator applies manure, litter, or process wastewater on the newly added land application area in accordance with existing field-specific permit terms applicable to the newly added land application area, such addition of new land would be a change to the new CAFO owner or operator's nutrient management plan but not a substantial change for purposes of this paragraph;

(ii) Any changes to the field-specific maximum annual rates for land application set in accordance with the linear approach or to the maximum amounts of nitrogen and phosphorus derived from all sources for each crop set in accordance with the narrative approach;

(Rule 1200-04-05-.14, continued)

(iii) Addition of any crop or other uses not included in the terms of the CAFO's nutrient management plan and corresponding field-specific rates of application; and

(iv) Changes to site-specific components of the CAFO's nutrient management plan, where such changes are likely to increase the risk of nitrogen and phosphorus transport to waters of the state.

3. CAFOs covered by state operating permits are subject to the following procedures when the CAFO owner or operator makes changes to the CAFO's nutrient management plan previously submitted to the director:

(i) The CAFO owner or operator must provide the director with the most current version of the CAFO's nutrient management plan and identify changes from the previous version, except that the results of calculations made in accordance with the requirements of subparts (f)1(ii) and (f)2(v) of this paragraph are not considered to be changes to the nutrient management plan subject to the requirements of this paragraph.

(ii) The director must review the revised nutrient management plan to ensure that it meets the requirements of this paragraph and applicable effluent limitations and standards and must determine whether the changes to the nutrient management plan include revision to the terms of the nutrient management plan as set forth in subparagraph (f) of this paragraph. The director must advise the CAFO owner or operator whether or not the changes meet the requirements of this paragraph and applicable effluent limitations and standards and upon such notification the CAFO must either make further revisions to the nutrient management plan or implement the revised nutrient management plan.

(11) All CAFOs that land apply manure, litter, or process wastewater, must do so in accordance with the following best management practices (BMPs) that are implemented through a nutrient management plan that incorporates a field-specific assessment of the potential for nitrogen and phosphorus transport from the field and that addresses the form, source, amount, timing, and method of application of nutrients on each field to achieve realistic production goals, while minimizing nitrogen and phosphorus movement to surface waters:

(a) Application rates for manure, litter, and other process wastewater applied to land under the ownership or operational control of the CAFO must minimize phosphorus and nitrogen transport from the field to surface waters in compliance with technical standards for nutrient management that:

1. Include a field-specific assessment of the potential for nitrogen and phosphorus transport from the field to surface waters, and address the form, source, amount, timing, and method of application of nutrients on each field to achieve realistic production goals, while minimizing nitrogen and phosphorus movement to surface waters, that employs the Tennessee Phosphorus Index (a tool developed by the University of Tennessee Extension Service and the NRCS to assess the risk of phosphorus movement from the application area to waters of the state); and

2. Include appropriate flexibilities for any CAFO to implement nutrient management practices to comply with the technical standards, including consideration of multi-year phosphorus application on fields that do not have a high potential for phosphorus runoff to surface water, phased implementation of phosphorus-

(Rule 1200-04-05-.14, continued)

based nutrient management, and other components, as determined appropriate by the director;

(b) Annual manure analysis for nitrogen and phosphorus content, using procedures outlined in NRCS Conservation Practice Standard 590, and soil analysis at a minimum of once every five years for phosphorus content (the results of these analyses are to be used in determining application rates for manure, litter, and other process wastewater);

(c) Periodic inspection of equipment used for land application of manure, litter and other process wastewater;

(d) Application of manure, litter, and process wastewater that:

1. Is applied no closer than 100 feet to any down-gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads, or other conduits to surface waters unless,

(i) The CAFO substitutes the 100-foot setback with a 35-foot wide vegetated buffer or by leaving in place a 60-foot natural riparian buffer, where applications of manure, litter, or process wastewater are prohibited; or

(ii) The CAFO demonstrates that a setback or buffer is not necessary because implementation of alternative conservation practices or field-specific conditions will provide pollutant reductions equivalent to or better than the reductions that would be achieved by the 100-foot setback;

2. Is applied no closer than 100 feet for any potable well, public or private or as recommended by the University of Tennessee Extension; and

(e) For new CAFOs that are located adjacent to exceptional Tennessee waters and outstanding national resource waters (as identified by the department), leave in place a minimum 60-foot natural riparian buffer between the stream and the land application area.

(12) For CAFOs with applicable federal effluent guidelines, technology-based effluent limitations and standards in accordance with those guidelines shall be applied.

(13) For CAFOs that are not subject to applicable federal effluent guidelines, the following standards shall be applied:

(a) For CAFOs that either discharge or are designed, constructed, operated or maintained such that a discharge could occur, the production area must be designed, constructed, operated and maintained to contain all manure, litter, and process wastewater including the runoff and the direct precipitation from a 25-year, 24-hour rainfall event.

(b) For all other CAFOs not subject to applicable federal effluent guidelines, the production area must be designed, constructed, operated and maintained so that no discharge will occur.

(14) No CAFO liquid waste management system shall be constructed, modified, repaired, or placed into operation after April 13, 2006 unless it is designed, constructed, operated, and maintained in accordance with final design plans and specifications which meet or exceed standards in the NRCS Field Office Technical Guide and other guidelines as accepted by the Departments of Environment and Conservation, or Agriculture. Specifically, plans must contain the following:

(Rule 1200-04-05-.14, continued)

(a) Any new or additional confinement buildings, waste/wastewater handling system, waste/wastewater transport structures, waste/wastewater treatment structures, settling basins, lagoons, holding ponds, sumps, or pits, and other agricultural waste containment/treatment structures constructed after April 13, 2006 shall be located in accordance with NRCS Conservation Practice Standard 313.

(b) Information to be used in the design of the open manure storage structure including, but not limited to, minimum storage for rainy seasons, minimum capacity for chronic rainfall events, the prohibition of land application to frozen, saturated, or snow-covered ground, the dewatering schedules set in the CAFO's Nutrient Management Plan, additional storage capacity for any manure intended to be transferred to another recipient at a later time, and any other factors that would affect the sizing of the open manure storage structure.

(c) The design of the open manure storage structure as determined by the most recent version of the National Resource Conservation Service's Animal Waste Management (AWM) software. CAFOs may use equivalent design software or procedures as approved by the Director.

(d) All inputs used in the open manure storage structure design including actual climate data for the previous 30 years consisting of historical average monthly precipitation and evaporation values, the number and types of animals, anticipated animal sizes or weights, any added water and bedding, any other process wastewater, and the size and condition of outside areas exposed to rainfall and contributing runoff to the open manure storage structure.

(e) The planning minimum period of storage in months including, but not limited to, the factors for designing an open manure storage structure listed in subparagraph (b) of this paragraph. Alternatively the CAFO may determine the minimum period of storage by specifying times the storage pond will be emptied consistent with the CAFO's Nutrient Management Plan.

(f) A subsurface investigation for earthen holding pond, pit, sump, treatment lagoon, or other earthen storage/ containment structure suitability and liner requirements shall be a component of the system design. The subsurface investigation will include a detailed soils investigation with special attention to the water table depth and seepage potential. The investigation must evaluate soils to a depth of two feet below the planned bottom grade of the storage structure. Deeper investigations may be required in karst regions. A soils/geologic investigation shall be performed by a soil scientist (as described in Rule 1200-01-06-.18) and qualified geologist. A qualified geologist is defined as an individual who is a Registered Professional Geologist licensed by the State of Tennessee or an individual who meets the requirements for the title of Certified Professional Geologist, as defined by the American Institute of Professional Geologists. Unless relevant information is available to the contrary, compliance with this provision during design and construction of the facility will normally demonstrate that the hydrologic connection does not exceed a maximum allowable specific discharge of 0.0028 ft/day (1×10^{-6} cm/sec).

(15) A CAFO's coverage under an SOP that does not allow discharge will serve as proof of a No Discharge Certification provided that in addition to being in compliance with all the terms and conditions of the permit, which must include the requirements of paragraphs (9) and (10) of Rule 1200-04-05-.14, the facility meets the requirements of subparagraphs (a) and (b) of this paragraph:

(Rule 1200-04-05-.14, continued)

(a) The owner of operator of a CAFO must document, based on an objective assessment of the conditions at the CAFO, that the CAFO is designed, constructed, operated, and maintained in a manner such that the CAFO will not discharge as follows:

1. There are no open manure storage structures; and

2. All parts of a CAFO's production area are designed, constructed, operated, and maintained such that there will be no discharge of manure, litter, or process wastewater.

(b) In order to receive coverage under a SOP that does not allow discharges, a CAFO owner or operator must submit the following information:

1. A statement that describes the basis for the CAFO's certification that it satisfies the eligibility requirements identified in subparagraph (a) of this paragraph; and

2. The following certification statement, signed in accordance with the signatory requirements of paragraph (6) of Rule 1200-04-05-.05:

"I certify under penalty of law that I am the owner or operator of a concentrated animal feeding operation (CAFO), identified as [insert: name of CAFO], and that said CAFO meets the requirements of 40 CFR 122.23(i). I have read and understand the eligibility requirements of 40 CFR 122.23(i)(2) for certifying that a CAFO does not discharge or propose to discharge and further certify that this CAFO satisfies the eligibility requirements. As part of this certification, I am including the information required by 40 CFR 122.23(i)(3). I also understand the conditions set forth in 40 CFR 122.23(i)(4), (5) and (6) regarding loss and withdrawal of certification. I certify under penalty of law that this document and all other documents required for this certification were prepared under my direction or supervision and that qualified personnel properly gathered and evaluated the information submitted. Based upon my inquiry of the person or persons directly involved in gathering and evaluating the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

(c) A certification will become effective upon the effective date of a facility's permit coverage. Certification will remain in effect for the entire time the facility is covered by this permit and in compliance with the no discharge requirement. A certification is no longer valid when a discharge has occurred or when the CAFO ceases to meet the requirements of subparagraph (a) of this paragraph.

(d) If certification becomes invalid due to an unpermitted discharge in accordance with subparagraph (c) of this paragraph, the CAFO must withdraw its certification within three days of the date on which the CAFO becomes aware that the certification is invalid. A CAFO must withdraw its certification by submitting written notification to the division. Once a CAFO's certification is no longer valid, the CAFO is subject to the requirements of parts 1 and 2 of this subparagraph:

1. The owner/operator of a CAFO meeting the size criteria of column 1 of TABLE 1200-04-05-.14-1, that has had an unpermitted discharge or a change such that the CAFO is now designed, constructed, operated or maintained such that a discharge could occur must seek NPDES Permit coverage pursuant to subparagraph (2)(a) of this rule; and

(Rule 1200-04-05-.14, continued)

2. For all other CAFOs that have had an unpermitted discharge or a change such that the CAFO is now designed, constructed, operated or maintained such that a discharge could occur the owner/operator of the CAFO must seek coverage under an SOP that allow discharge.

(16) Appendices

(Rule 1200-04-05-.14, continued)

Appendix A

Agreement for the Removal of Litter, Manure and/or Process Wastewater from an AFO

The conditions listed below help to protect water quality. These conditions apply to litter, manure and/or process wastewater removed from an AFO. The material covered by this agreement was removed on _____ from the facility owned by _____ located at _____.

A. The litter, manure and/or process wastewater must be managed to ensure there is no discharge of litter, manure and/or process wastewater to surface or groundwater.

B. When removed from the facility, litter, manure and/or process wastewater should be applied directly to the field or stockpiled and covered with plastic or stored in a building.

C. Litter, manure and/or process wastewater must not be stockpiled near streams, sinkholes, wetlands or wells.

D. Fields receiving litter, manure and/or process wastewater should be soil tested at least every two or three years.

E. A litter, manure and/or process wastewater nutrient analysis should be used to determine application rates for various crops.

F. Calibrate spreading equipment and apply litter, manure and/or process wastewater uniformly.

G. Apply no more nitrogen or phosphorus than can be used by the crop (i.e., agronomic rates).

H. A buffer zone is recommended between the application sites and adjacent streams, lakes, ponds, sinkholes and wells.

I. Do not apply litter, manure and/or process wastewater when the ground is frozen or on steep slopes subject to flooding, erosion or rapid runoff.

J. Cover vehicles hauling litter, manure and/or process wastewater on public roads.

K. Keep records of locations where litter, manure and/or process wastewater will be used as a fertilizer.

I, _____ am the person receiving litter and do understand the conditions listed above.
(name)

_____ _____
(signature) (date)

_____ _____
(address) (phone)

(Rule 1200-04-05-.14, continued)

Appendix B

Names of Persons and/or Firms That Remove Litter, Manure and/or Process Wastewater from an AFO

_____

(name of AFO)

Name: _____
Address: _____
_____
Phone No.: _____
Tons Removed: _____
Date: _____

Name: _____
Address: _____
_____
Phone No.: _____
Tons Removed: _____
Date: _____

Name: _____
Address: _____
_____
Phone No.: _____
Tons Removed: _____
Date: _____

Name: _____
Address: _____
_____
Phone No.: _____
Tons Removed: _____
Date: _____

Name: _____
Address: _____
_____
Phone No.: _____
Tons Removed: _____
Date: _____

Name: _____
Address: _____
_____
Phone No.: _____
Tons Removed: _____
Date: _____

Name: _____
Address: _____
_____
Phone No.: _____

Name: _____
Address: _____
_____
Phone No.: _____

(Rule 1200-04-05-.14, continued)

Tons Removed: _____	Tons Removed: _____
Date: _____	Date: _____
Name: _____	Name: _____
Address: _____ _____	Address: _____ _____
Phone No.: _____	Phone No.: _____
Tons Removed: _____	Tons Removed: _____
Date: _____	Date: _____

Authority: *T.C.A. §§ 4-5-201 et seq. and 69-3-101 et seq.* ***Administrative History:*** *Original rule filed November 25, 1977; effective December 26, 1977. Amendment filed May 7, 2004; effective July 21, 2004. Amendment filed May 22, 2007; effective August 5, 2007. Repeal and new rule filed March 2, 2011; effective May 31, 2011.*

RULES
OF
THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

DIVISION OF WATER SUPPLY
RULES OF WATER QUALITY CONTROL BOARD

CHAPTER 1200-04-06
UNDERGROUND INJECTION CONTROL

TABLE OF CONTENTS

1200-04-06-.01 AUTHORITY AND PURPOSE. The purpose of these regulations is to protect the ground water resources of the State. The authority for this rule is included in the authority given the board to protect waters of the State pursuant to T.C.A. §69-3-105. As provided T.C.A. §69-3-103(29), "Waters means any and all water, public or private, on or beneath the surface of the ground, which are contained within, flow through, or border upon Tennessee or any portion thereof except those bodies of water confined to and retained within the limits of private property in single ownership which do not combine or effect a junction with natural surface or underground waters."

Authority: *T.C.A. §69-3-105.* ***Administrative History:*** *Original rule August 9, 1985; effective September 8, 1985.*

1200-04-06-.02 GENERAL.

(1) Use of Number and Gender

As used in these Rules:

(a) Words in the masculine gender also include the feminine and neuter genders; and

(b) Words in the singular include the plural; and

(c) Words in the plural include the singular.

(2) Rule Structure

These Rules are organized, numbered, and referenced according to the following outline form:

(1) paragraph

(a) subparagraph

(Rule 1200-04-06-.02, continued)

1. part

(i) subpart

(I) item

I. subitem

A. section

(A) subsection

(3) Definitions

For the purposes of the Underground Injection Control program established in this chapter, the definition of any word or phrase used in these regulations shall be the same as given in T.C.A. 69-3-103 except the following words or phrases shall have the following meanings:

“Aquifer” means a formation, group of formations, or part of a formation that contains a sufficient quantity of permeable material to yield significant quantities of water for wells and springs.

“Area of Review” (AOR) means the area surrounding an injection well described according to the criteria set forth in Rule 1200-04-06-.09(3) or in the case of an area permit, the project area plus a circumscribing area the width of which is either a mile or a number calculated according to the criteria set forth in the formula for injection well AOR.

“Casing” means a tubular retaining structure which is installed in an excavated hole to maintain the well opening.

“Cementing” means the act of employing cementitious material in the annulus behind the well casing.

“Cesspool” means a drywell that receives untreated sanitary waste containing human excreta, and which sometimes has an open bottom and/or perforated sides.

“Commissioner” means the Commissioner of environment and conservation or the commissioner’s duly authorized representative and, in the event of the commissioner’s absence or a vacancy in the office of commissioner, the deputy commissioner.

“Compatibility” means substances capable of being mixed or existing together.

“Composite sample” means a mixture of grab samples collected at the same sampling point at different times.

“Confining unit or zone” means a geological formation, group of formations, or part of a formation that limits fluid movement from an injection zone.

“Confining bed” means a layer of distinctly less permeable material stratigraphically adjacent to one or more aquifers.

“Contamination” means the addition of any substance or matter to water.

“Draft permit” means a document prepared under Rule 1200-04-06-.08(7) indicating the Commissioner’s tentative decision to issue or deny, modify, revoke and reissue, terminate, or

reissue a "permit." A notice of intent to terminate a permit, and a notice of intent to deny a permit, as discussed in Rule 1200-04-06-.08(9) are types of "draft permits." A denial of a request for modification, revocation and reissuance, or termination, as discussed in Rule 1200-04-06-.08(9) is not a "draft permit."

"Drilling mud" means a heavy suspension used in drilling an "injection well," introduced down the drill pipe and through the drill bit.

"Drywell" means a well, other than an improved sinkhole or subsurface fluid distribution system, completed above the water table so that its bottom and sides are typically dry except when receiving fluids.

"Enhanced recovery" means increased recovery from a pool achieved by artificial means or by the application of energy extrinsic to the pool.

"Emergency permit" means a UIC "permit" issued in accordance with Rule 1200-04-06-.07(8).

"Environmental Protection Agency" ("EPA") means the United States Environmental Protection Agency.

"EPA" means the United States Environmental Protection Agency.

"Exempted aquifer" means an "aquifer" or its portion that meets the criteria in the definition of "underground source of drinking water" but which has been exempted according to the procedures in Rule 1200-04-06-.04.

"Existing injection well" means an "injection well" that began injection of fluids into the subsurface prior to the effective date of this rule.

"Facility or activity" means any waste facility or activity (including land or appurtenance thereto) that is subject to regulation under the Tennessee Solid Waste Disposal Act, the Tennessee Hazardous Water Management Act, the Tennessee Water Quality Control Act or the Tennessee Safe Drinking Water Act.

"Fluids" means materials or substances that flow or move whether semi-solid, liquid, sludge, gas or any other form or state.

"Formation" means a body or stratum of rock characterized by a degree of lithologic homogeneity and is mappable on the earth's surface or traceable in the subsurface.

"Formation fluid" means "fluid" present in a "formation" under natural conditions as opposed to fluids introduced into a formation by injection or emplacement by man. This term is synonymous with "native water."

"Grab sample" means a sample collected at a particular time and place that represents the composition of the source at that time and place.

"Ground water" means water below the land surface and free to move under the influence of gravity.

"Grout" means a fluid mixture of cement and water or other cementitious material of a consistency that can be forced through a pipe under hydraulic pressure.

"Hazardous waste" means a hazardous waste as defined by rule 1200-01-11-.02(1)(c).

"Hydrofracture" means the application of pressure sufficient to cause rupture of a subsurface formation.

"Improved Sinkhole" means a naturally occurring karst depression modified by man in such a manner that the chemical, physical, biological, radiological, or bacteriological properties of the water or fluids moving into the subsurface through it have been or will be altered.

"Infiltration cell" means an unlined man-made structure designed for the distribution of fluids into or above a "USDW."

"Injection well" means structure or device which is used for the emplacement of fluids into a subsurface stratum including, but not limited to:

(a) a well used for the emplacement of fluids;

(b) a subsurface fluid distribution system;

(c) an improved sinkhole; or

(d) infiltration cell and any other structures or devices designed, constructed or used to emplace fluids into the subsurface, except as provided in rule 1200-04-06-.03(3); or

(e) modified recharge point.

"Injection zone" means the formation, group of formations, or part of a formation that receives fluids through an injection well.

"Injectivity index" means the rate of injection in gallons per minute per unit of applied injection pressure in pounds per square inch.

"Innovative technology" means an experimental or unproven procedure, which has not been demonstrated to be feasible under the conditions in which it is being tested.

"Lease" means real property upon which the right to extract oil and gas or other minerals has been granted under contract for a share of the value of the production or an annual rental for a specified period.

"Mechanical integrity" means mechanically complete, performs the function for which it was intended and is unimpaired.

"Modified recharge point" means a naturally occurring karst feature that has been modified by man with a structure or in any other manner that the chemical, physical, biological, radiological or bacteriological properties of the water or fluids moving into the subsurface through it or the ground water has been or will be altered.

"New injection well" means any well that begins injection of fluids into the subsurface after August 9, 1985.

"Owner or operator" means the owner or operator of any "facility or activity" subject to regulation under the UIC program.

"Packer" means a device placed in a well to produce a fluid-tight seal in a section of the well bore or the annulus between the well casing and the inner injection tubing.

(Rule 1200-04-06-.02, continued)

"Permit" means an authorization, license, or equivalent control document issued by EPA or the Department to implement the requirements of this rule. "Permit" includes an area permit and an emergency permit. "Permit" as used in these UIC rules means an individual permit issued under the Water Quality Control Act and does not include an authorization by rule which is a type of general permit under the Water Quality Control Act.

"Person" means an individual, association, partnership, corporation, municipality, State, Federal, or Tribal agency, or an agency or employee thereof.

"Plugging" means the act or process of stopping the flow of water, oil, or gas into or out of a formation through a bore hole or well penetrating that formation.

"Point of Injection" means the last accessible point where a sample may be collected prior to waste fluids being released into the subsurface environment through a Class V injection well.

"Pollution" means such alteration of the physical, chemical, biological, bacteriological, or radiological properties of waters of this State including but not limited to changes in temperature, taste, color, turbidity, or odor of the waters:

(a) as will result or will likely result in harm, potential harm or detriment of the public health, safety, or welfare;

(b) as will result or will likely result in harm, potential harm or detriment to the health of animals, birds, fish, or aquatic life;

(c) as will render or will likely render the waters substantially less useful to domestic, municipal, industrial, agricultural, recreational, or other reasonable uses; or

(d) as will leave or will likely leave the waters in such condition as to violate any standards of water quality established by Water Quality Control Board.

"Project" means a group of wells in a single operation.

"Produced water" means those waters produced in conjunction with the production of crude oil or natural gas and commonly collected at field storage or disposal facilities including: lease tanks, commingled tank batteries, burn pits, and community or lease wastewater disposal systems.

"Public water system" means a system for the provision of piped water for human consumption if such system has at least fifteen (15) connections or regularly serves at least twenty-five (25) individuals at least sixty (60) days out of the year.

"Radioactive material" means any material, solid, liquid, or gas, which emits radiation spontaneously.

"Radioactive waste" means any waste which contains radioactive material in concentrations which exceed those listed in Rule 1200-02-05-.161, Schedule RHS 8-30, Table II, Column 2.

"Recharge point" means a naturally occurring sinkhole or other karst feature that accepts stormwater runoff from unimproved properties.

"Regional rock deformation" means folded, faulted, sheared, compressed or extended rocks which result from various earth forces.

(Rule 1200-04-06-.02, continued)

"Sanitary waste" means liquid or solid wastes originating solely from humans and human activities, such as wastes from toilets, showers, wash basins, cleaning, clothes washing, or food preparation, together with any waters mixed with or used to convey such wastes, and provided that the waste or water is not mixed with industrial waste.

“Schedule of compliance” means a schedule of remedial measures included in a “permit,” including an enforceable sequence of interim requirements (for example: actions, operations, or milestone events) leading to compliance with the “appropriate Act and regulations.”

“Septic system” means a “well” that is used to emplace sanitary waste below the surface and is typically comprised of a septic tank and subsurface fluid distribution system or disposal system.

"Sewage" means water-carried waste or discharges from human beings or animals, from residences, public or private buildings, or industrial establishments, or boats, together with such other wastes and ground, surface, storm, or other water as may be present; (T.C.A. § 69-3-103(27)).

“Sinkhole” means a naturally occurring closed depression in a karst area characterized by inward drainage (inlets) accepting runoff from the surrounding area and having no visible surface outlet.

“Site” means the land or water area where any facility or activity is physically located or conducted including adjacent land used in connection with the facility or activity.

“Stratum” (plural strata) means a single sedimentary bed or layer, regardless of thickness, that consists of generally the same kind of rock material.

“Subsurface fluid distribution system” (SFDS) means an assemblage of perforated pipes, drain tiles, or mechanisms intended to distribute fluids below the surface of the ground.

“Total Dissolved Solids” means a material that passes through a standard glass fiber filter disk and remains after evaporation and drying to constant weight at 180°C.

“Transferee” means the owner or operator receiving ownership and/or operational control of the well.

”Transferor” means the owner or operator transferring ownership and/or operational control of the well.

“Tremie pipe” means a device, usually small diameter pipe, that carries grouting materials to the bottom of a drill hole and allows the emplacement of the grout from the bottom up without the introduction of appreciable air pockets.

“UIC” means the Underground Injection Control program.

“Underground injection” means a “well injection.”

“Underground source of drinking water” (USDW) means an aquifer or its part that:

(a) currently supplies any public water system; or

(b) contains a sufficient quantity of ground water to supply a public water system; and

1. currently supplies drinking water for human consumption; or

2. contains fewer than 10,000 mg/L total dissolved solids; and

(c) which is not a portion of an aquifer which has been designated by the Department as an Exempted Aquifer.

"Well" means a bored, drilled, driven or dug shaft or hole whose depth is greater than the largest surface dimension or an improved sinkhole; or a subsurface fluid distribution system.

"Well injection" means the subsurface emplacement of fluids through a "well."

Authority: *T.C.A. §§4-5-201 et seq., 69-3-101 et seq., 69-3-105, and Public Chapter 417, Acts of 1991.* ***Administrative History:*** *Original rule filed led August 9, 1985; effective September 8, 1985. Amendment filed April 11, 2001; effective June 25, 2001. Amendment filed March 28, 2002; effective June 11, 2002. Amendment filed February 17, 2010; effective May 18, 2010.*

1200-04-06-.03 INJECTION PROHIBITED.

(1) Unless excluded under Subsection (3), the construction of an injection well, the conversion of a well into an injection well, and the use or operation of an injection well is prohibited unless authorized by an injection well permit or by rule of the Department.

(2) Wells may not be used for the disposal of radioactive or hazardous waste.

(3) The following activities are not within the scope of subsection (1):

(a) Operation of domestic subsurface fluid distribution systems disposing exclusively of sanitary waste with the capacity of serving less than 20 persons;

(b) Operation of facilities injecting natural gas for the purpose of storage;

(c) Operation of wastewater treatment ponds or lagoons permitted to discharge to surface waters under the National Pollutant Discharge Elimination System (NPDES) permitting program.

(4) These rules do not limit the authority of the Department to abate and prevent pollution of surface or ground water resulting from any injection activity, or other discharge of pollutants, by requiring a permit, by instituting any type of enforcement action under the Water Quality Control Act or other environmental statute, or by contracting for clean-up under T.C.A. §§68--46-201 et seq., or by other appropriate action.

(5) The use of any well to dispose of water carrying human waste, household or business waste, raw sewage or the effluent from any septic tank or other sewer system of any kind, unless such well is a subsurface fluid distribution system (SFDS) which is part of a Subsurface Sewage Disposal System (SSDS) permitted under provisions of rule 1200-1-6-.05 (TCA §68-221-401 et seq.).

(6) After the effective date of this rule all classes of new injection wells located within Zone 1 of a community water system's wellhead protection area as defined in Rule 1200-05-01-.34 under T.C.A. §§ 68-221-701 et seq., the Tennessee Safe Drinking Water Act are prohibited.

Authority: *T.C.A. §§4-5-201 et seq., 69-3-101 et seq., 69-3-105, and Public Chapter 417, Acts of 1991.* ***Administrative History:*** *Original rule filed August 9, 1985; effective September 8, 1985. Amendment filed April 11, 2001; effective June 25, 2001. Amendments filed February 17, 2010; effective May 18, 2010.*

1200-04-06-.04 PREVENTION OF POLLUTION OF GROUND WATER AND IDENTIFICATION OF UNDERGROUND SOURCES OF DRINKING WATER AND EXEMPTED AQUIFERS.

(1) No owner or operator shall construct, operate, maintain, convert, plug, abandon, or conduct any other injection activity in a manner that allows the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of any primary drinking water regulation or may otherwise adversely affect the health of persons. The applicant for a permit shall have the burden of showing that the requirements of this paragraph are met.

(2) For Class I, II and III wells, if any water quality monitoring of an underground source of drinking water indicates the movement of any contaminant into the underground source of drinking water, except as authorized under this Rule, the Commissioner shall prescribe such additional requirements for construction, corrective action, operation, monitoring, or reporting (including closure of the injection well) as are necessary to prevent such movement. In the case of wells authorized by permit, the Commissioner may impose additional requirements by modifying the permit in accordance with Rule 1200-04-06-.08(8) or may terminate the permit in accordance with Rule 1200-04-06-.08(9). Additionally, the Commissioner may assess civil penalties for all permit or rule violations in accordance with T.C.A § 69-3-115.

(3) For class V wells, if at any time the Commissioner learns that a Class V well may cause a violation of primary drinking water regulations he or she shall:

(a) Require the injector to obtain an individual permit; and/or

(b) Order the injector to take such actions (including, where required, closure of the injection well) as may be necessary to prevent the violation.

(c) Take enforcement action.

(4) Whenever the Commissioner learns that a Class V well may be otherwise adversely affecting the health of persons, he or she may prescribe such actions as may be necessary to prevent the adverse effect, including any action authorized under paragraph (3) of this Rule and assess civil penalties in accordance with T.C.A § 69-3-115.

(5) Notwithstanding any other provision of this rule, the Commissioner may take emergency action upon receipt of information that a contaminant which is present in or likely to enter a public water system or underground source of drinking water may present an imminent and substantial endangerment to the health of persons. The Commissioner must first determine that local authorities have not taken appropriate action to protect the health of such persons, before taking emergency action.

(6) Identification of Underground Sources of Drinking Water

(a) The Commissioner may identify (by narrative description, illustrations, maps, or other means) and shall protect, except where exempted under subparagraph (b) of this paragraph, as an underground source of drinking water, all aquifers or parts of aquifers which meet the definition of an “underground source of drinking water" in Rule 1200-04-06-.02. Even if an aquifer has not been specifically identified by the commissioner, it is an underground source of drinking water if it meets the definition in Rule 1200-04-06-.02.

(b) 1. The Commissioner may identify (by narrative description, illustrations, maps, or other means) and describe in geographic and/or geometric terms (such as

vertical and lateral limits and gradient) which are clear and definite, all aquifers or parts thereof which the Commissioner proposes to designate as exempted aquifers using the criteria in paragraph (7) of this Rule.

2. No designation of an exempted aquifer submitted as part of a UIC Program shall be final until approved by the EPA Administrator.

3 Subsequent to program approval or promulgation by the EPA, the Commissioner may, after notice and opportunity for a public hearing, identify additional exempted aquifers.

(i) Exemption of aquifers identified under subparagraph (7)(b) of this Rule shall be treated as a program revision under 40 CFR 145.32.

(Note: 40 CFR 145.32 provides that:

(a) Either EPA or the approved state may initiate program revision. Program revision may be necessary when the controlling federal or state statutory or regulatory authority is modified or supplemented. The state shall keep EPA fully informed of any proposed modifications to its basic statutory or regulatory authority, its forms, procedures, or priorities.

(b) Revision of a state program shall be accomplished as follows:

(1) The state shall submit a modified program description, Attorney General's statement, Memorandum of Agreement, or such other documents as EPA determines to be necessary under the circumstances.

(2) Whenever EPA determines that the proposed program revision is substantial, EPA shall issue public notice and provide an opportunity to comment for a period of at least 30 days. The public notice shall be mailed to interested persons and shall be published in the Federal Register and in enough of the largest newspapers in the state to provide statewide coverage. The public notice shall summarize the proposed revisions and provide for the opportunity to request a public hearing. Such a hearing will be held if there is significant public interest based on requests received.

(3) The Administrator shall approve or disapprove program revisions based on the requirements of this part and of the Safe Drinking Water Act.

(4) A program revision shall become effective upon the approval of the Administrator. Notice of approval of any substantial revision shall be published in the Federal Register. Notice of approval of non-substantial program revisions may be given by a letter from the Administrator to the State Governor or his designee.)

(ii) Exemption of aquifers identified under subparagraph (7)(c) of this Rule shall become final if the Commissioner submits the exemption in writing to the EPA Administrator and the EPA Administrator has not disapproved the

designation within 45 days. Any disapproval by the EPA Administrator shall state the reasons and shall constitute final Agency action for purposes of judicial review.

(c) 1. For Class III wells, the Commissioner shall require an applicant for a permit which necessitates an aquifer exemption under part (7)(b)1 of this Rule to furnish the data necessary to demonstrate that the aquifer is expected to be mineral or hydrocarbon producing. Information contained in the mining plan for the proposed project, such as a map and general description of the mining zone, general information on the mineralogy and geochemistry of the mining zone, analysis of the amenability of the mining zone to the proposed mining method, and a time-table of planned development of the mining zone shall be considered by the Commissioner in addition to the information required.

2. For Class II wells, a demonstration of commercial producibility shall be made as follows:

(i) For a Class II well to be used for enhanced oil recovery processes in a field or project containing aquifers from which hydrocarbons were previously produced, commercial producibility shall be presumed by the Commissioner upon a demonstration by the applicant of historical production having occurred in the project area or field; and

(ii) For Class II wells not located in a field or project containing aquifers from which hydrocarbons were previously produced, information such as logs, core data, formation description, formation depth, formation thickness and formation parameters such as permeability and porosity shall be considered by the Commissioner, to the extent such information is available.

(7) Exempted Aquifers

An aquifer or a portion thereof which meets the criteria for an “underground source of drinking water" may be determined to be an “exempted aquifer" if it meets the following criteria:

(a) It does not currently serve as a source of drinking water; and

(b) It cannot now and will not in the future serve as a source of drinking water because:

1. It is mineral, hydrocarbon or geothermal energy producing, or can be demonstrated by a permit applicant as part of a permit application for a Class II or III operation to contain minerals or hydrocarbons that considering their quantity and location are expected to be commercially producible;

2. It is situated at a depth or location which makes recovery of water for drinking water purposes economically or technologically impractical;

3. It is so contaminated that it would be economically or technologically impractical to render that water fit for human consumption; or

4. It is located over a Class III well mining area subject to subsidence or catastrophic collapse;

or

(c) The total dissolved solids content of the ground water is more than 3,000 and less than 10,000 mg/l and it is not reasonably expected to supply a public water system.

Authority: *T.C.A. §§69-3-101 et seq., 69-3-105, and Public Chapter 417, Acts of 1991.* ***Administrative History:*** *Original rule filed August 9, 1985; effective September 8, 1985. Amendment filed April 11, 2001; effective June 25, 2001. Amendment filed February 17, 2010; effective May 18, 2010.*

1200-04-06-.05 INJECTED FLUID STANDARDS.

(1) Any fluid injected into or above a USDW shall meet the following standards unless specific alternate standards are established by the Department for the individual discharge based on hydrogeologic setting, character of the injectate, risk to the environment and persons utilizing the ground water resource and compliance with 1200-04-06-.05(1)(j):

(a) Dissolved oxygen - The injected fluid shall contain dissolved oxygen in at least the amount that naturally occurs in that portion of the aquifer where the injection occurs.

(b) Oils and grease - The injected fluid shall contain no oil and grease other than that of natural origin in that portion of the aquifer where the injection occurs.

(c) Color and turbidity - The injected fluids shall contain no color or turbidity other than that of natural origin in that portion of the aquifer where the injection occurs.

(d) Coliform bacteria - The concentration of a fecal coliform group shall not exceed 200 per 100 ml. as a geometric mean based on a minimum of 10 samples collected from a given sampling point over a period of not more than 30 consecutive days with individual samples being collected at intervals of not less than 12 hours. For the purposes of determining the geometric mean, individual samples having a fecal coliform group concentration of less than 1 per 100 ml. shall be considered as having a concentration of 1 per 100 ml. In addition, the concentration of the fecal coliform group in any individual sample shall not exceed 1,000 per 100 ml.

(e) Taste and odor - The injected fluids shall have no taste or odor other than that which naturally occurs in that portion of the aquifer where the injection occurs.

(f) pH - The injected fluids shall have a pH level as naturally occurs in that portion of the aquifer where the injection occurs or as may result from normal agricultural, or silviculture activity provided all reasonable controls are used.

(g) Chemical constituents - The injected fluids shall be free from chemical constituents, other than those of natural origin, in that portion of the aquifer where the injection occurs, in concentrations specified in 1200-05-01-.19 or combinations which would be harmful to human, animal or aquatic life or detrimental to the most sensitive and governing water use . Criteria for chemical constituents contained in guidelines published by the US Environmental Protection Agency shall be considered.

(h) Solids, floating materials and deposits - The injected fluid shall be free of distinctly visible solids, scum, foam, or oily sleek other than those of natural origin in that portion of the aquifer where the injection occurs.

(i) Other pollutants - The injected fluid shall contain no other pollutants that may be detrimental to public health or impair the usefulness of the water for the most sensitive and governing water use.

(Rule 1200-04-06-.05, continued)

(j) The operation of an underground injection system shall not cause any aquifer designated as a USDW to contain any substances, whether alone or in combination with other substances, that are toxic, carcinogenic, mutagenic, or teratogenic, other than those of natural origin, at levels and conditions which violate primary drinking water standards as given in 1200-05-01 or adversely affect health of persons.

Authority: *T.C.A. §§4-5-201 et seq., 69-3-101 et seq., 69-3-105, and Public Chapter 417, Acts of 1991.* ***Administrative History:*** *Original rule filed August 9, 1985; effective September 8, 1985. Amendment filed April 11, 2001; effective June 25, 2001.*

1200-04-06-.06 CLASSIFICATION OF INJECTION WELLS. Injection wells within the jurisdiction of the Department are classified as follows:

(1) Class I

(a) Wells used by generators of hazardous waste or owners or operators of hazardous waste management facilities to inject hazardous waste, beneath the lowermost formation containing within a radius of one mile of the well bore, a USDW; or

(b) Other industrial and municipal disposal wells which inject fluids beneath the lowermost formation containing, within a radius of one mile of the well bore, a USDW.

(c) Radioactive waste disposal wells which inject fluids below the lowermost formation containing an underground source of drinking water within one mile of the well bore.

(2) Class II-Wells that inject fluids:

(a) Which are brought to the surface in connection with conventional oil or natural gas production and may be commingled with waste waters from gas plants which are an integral part of production operations, unless those waters are classified as a hazardous waste at the time of injection;

(b) For enhanced recovery of oil or natural gas; and

(c) For storage of hydrocarbons which are liquid at standard temperature and pressure.

(3) Class III-Wells that inject fluids for extraction of minerals including:

(a) Mining of sulfur by the Frasch process;

(b) In-situ production of uranium or other metals. This category includes only in-situ production from ore bodies which have not been conventionally mined. Solution mining of conventional mines such as stope leaching is included in Class V; or

(c) Solution mining of salts or potash.

(4) Class IV

(a) Wells used by generators of hazardous waste or of radioactive waste, by owners or operators of hazardous waste management facilities, or by owners or operators of radioactive waste disposal sites, to dispose of hazardous waste or radioactive waste into a formation which within one mile of the well contains a USDW; or

(b) Wells used by generators of hazardous waste or of radioactive waste, by owners or operators of hazardous waste management facilities, or by owners or operators of

radioactive waste disposal sites, to dispose of hazardous waste or radioactive waste above a formation which within one mile of the well contains a USDW.

(c) Wells used by generators of hazardous waste or owners or operators of hazardous waste management facilities to dispose of hazardous waste, which cannot be classified under subparagraph (1)(a) or subparagraphs (4)(a) and (b) of this rule.

(5) Class V-Injection wells or systems not included in Classes 1, II, III, or IV. Class V wells include:

(a) Air conditioning return flow wells used to return to the supply aquifer the water used for heating or cooling in a heat pump;

(b) Drainage wells used to drain surface fluid, primarily storm runoff, into a subsurface formation;

(c) Cooling water return flow wells used to inject water previously used for cooling;

(d) Recharge wells used to replenish the water in an aquifer;

(e) Sand backfill and other backfill wells used to inject a mixture of water and sand, mill tailings or other solids into mined-out portions of subsurface mines whether what is injected is a radioactive waste or not;

(f) Subsidence control wells (not used for the purpose of oil or natural gas production) used to inject fluids into a non-oil or gas producing zone to reduce or eliminate subsidence associated with the overdraft of fresh water;

(g) Injection systems associated with remedial activity. This subparagraph does not allow the injection of hazardous waste into a Class V well. Systems used to inject contaminated ground water that has been treated and is being reinjected into the same formation from which it was drawn are not prohibited by this rule if such injection is approved by state or federal agencies operating under the Tennessee Hazardous Waste Management Act, Part 1 or Part 2, T.C.A. Sections 68-212-101 et seq. or 68-212-201 et seq. or Tennessee Petroleum Underground Storage Tank Act, T.C.A. Sections 68-215-101 et seq. or Tennessee Water Quality Control Act, T.C.A. Sections 69-3-101 et seq. or Resource Conservation and Recovery Act (RCRA); 42 USC 6901-6992k or Comprehensive Environmental Response and Liability Act of 1980; 42 USC 9601-9675;

(h) Injection wells associated with the recovery of geothermal energy for heating, aquaculture and production of electric power;

(i) Wells used for solution mining of conventional mines such as stopes leaching;

(j) Injection wells used in innovative or experimental technologies;

(k) Injection wells used for in site recovery of lignite, coal, tar sands, and oil shale; and

(l) Wells used to inject spent brine into the same formation from which it was withdrawn after extraction of halogens or their salts.

(m) Large capacity subsurface fluid distribution systems with the capacity to serve more than 20 persons per day.

(Rule 1200-04-06-.06, continued)

(n) Infiltration cells.

(o) Subsurface fluid distribution systems disposing of waste other than sanitary waste.

(p) Dry wells used for the injection of wastes into a subsurface formation;

(q) Modification of a recharge point or the area where the recharge originates; and

(r) Improved sinkholes.

Authority: *T.C.A. §§4-5-201 et seq., 69-3-101 et seq., 69-3-105, and Public Chapter 417, Acts of 1991.* ***Administrative History:*** *Original rule filed August 9, 1985; effective September 8, 1985. Amendment filed April 11, 2001; effective June 25, 2001. Amendments filed February 17, 2010; effective May 18, 2010.*

1200-04-06-.07 PERMIT REQUIRED.

(1) Except for exclusions specified in paragraph 1200-04-06-.03(3), all injection wells and activities must be authorized by permit or by rule.

(2) For new injection wells, a permit must be obtained before construction commences, unless the injection is authorized by rule as described in paragraph 1200-04-06-.14(2).

(3) The owner or operator of an existing Class II or III injection well shall complete, sign and submit to the Department an application for permit in conformance with this Chapter within six (6) months from the date of approval of these Rules. The owner or operator must demonstrate to the satisfaction of the Department that the existing well complies with all applicable Rules of this Chapter.

(4) Continued injection into existing Class V Wells is authorized by virtue of this rule provided compliance with rule 1200-04-06-.05(1) and any other applicable rules of this Chapter are maintained. Owners/operators of existing Class V wells that fail to maintain compliance shall immediately cease operation and submit an application. An application must be submitted within the appropriate time frame for each grand division as specified in this rule. Within six (6) months of the effective date of this rule, owner/operators of injection wells within the Western Grand Division must submit an application. Within twelve (12) months of the effective date of this rule, owner/operators of injection wells within the Central Grand Division must submit an application. Within eighteen (18) months of the effective date of this rule, owner/operators of injection wells within the Eastern Grand Division must submit an application. If an application for an existing Class V well is not submitted within the specified timeframe, the owner/operator shall be subject to an application fee for a new well as specified in 1200-04-06-.18(1).

(5) The Department may require the owner or operator of a Class V injection well authorized by rule to apply for and obtain an injection well permit. Cases for which a permit may be required include:

(a) The injection well is not in compliance with the standards required by this Chapter.

(b) Compliance with standards in addition to those listed in this Chapter is required to protect USDWs from pollution.

(6) Reserved.

(Rule 1200-04-06-.07, continued)

(7) Class V wells utilizing innovative or experimental technologies may not be authorized by rule, but only by a permit. The permit shall require a surety bond.

(8) Emergency permits.

(a) Coverage. Notwithstanding any other provision of this Rule the Commissioner may temporarily permit a specific underground injection if:

1. An imminent and substantial endangerment to the health of persons will result unless a temporary emergency permit is granted, provided the injection will not result in the movement of fluids into underground sources of drinking water; or

2. (i) A substantial and irretrievable loss of oil or gas resources will occur unless a temporary emergency permit is granted to a Class II well; and

(ii) Timely application for a permit could not be practically made; and

(iii) The injection will not result in the movement of fluids into underground sources of drinking water; or

3. A substantial delay in production of oil or gas resources will occur unless a temporary emergency permit is granted to a new Class II well and the temporary authorization will not result in the movement of fluids into an underground source of drinking water.

(b) Requirements for issuance.

1. Any temporary permit under part (a)1 of this paragraph shall be for no longer term than required to prevent the hazard.

2. Any temporary permit under part (a)2 of this paragraph shall be for no longer than 90 days, except that if a permit application has been submitted prior to the expiration of the 90-day period, the Commissioner may extend the temporary permit until final action on the application.

3. Any temporary permit under part (a)3 of this paragraph shall be issued only after a complete permit application has been submitted and shall be effective until final action on the application.

4. Notice of any temporary permit under this paragraph shall be published in accordance with paragraph (7) of Rule 1200-04-06-.08 within ten days of the issuance of the permit.

5. The temporary permit under this paragraph may be either verbal, or written. If verbal authorization, it must be followed within 5 calendar days by a written temporary emergency permit.

6. The Commissioner shall condition the permit in any manner he or she determines is necessary to ensure that the injection will not result in the movement of fluids into an underground source of drinking water.

Authority: *T.C.A. §§4-5-201 et seq., 69-3-101 et seq., 69-3-105, and Public Chapter 417, Acts of 1991.* ***Administrative History:*** *Original rule filed August 9, 1985; effective September 8, 1985. Amendment filed April 11, 2001; effective June 25, 2001. Amendment filed February 17, 2010; effective May 18, 2010.*

1200-04-06-.08 AUTHORIZATION BY PERMIT FOR INJECTION WELLS NOT AUTHORIZED BY RULE.

(1) Permit Application - All permit applicants for injection wells not authorized by rule shall provide the following information to the Department, using a form provided by the Department:

(a) The activities conducted by the applicant which require it to obtain a UIC permit.

(b) Name, mailing address, and location of the facility for which the application is submitted.

(c) Up to four North American Industry Classification System (NAICS) codes which best reflect the principal products or services provided by the facility.

(d) The operator's name, address, telephone number, ownership status, and status as Federal, State, private, public, or other entity.

(e) Whether the facility is located on Indian lands.

(f) A listing of all permits or construction approvals received or applied for under any of the following programs:

1. Hazardous Waste Management program under federal or state law.

2. UIC program under federal or state law.

3. NPDES program under federal or state law.

4. Prevention of Significant Deterioration (PSD) program under federal or state law.

5. Nonattainment program under federal or state law.

6. National Emission Standards for Hazardous Pollutants (NESHAPS) preconstruction approval under federal or state law.

7. Ocean dumping permits under the Marine Protection Research and Sanctuaries Act.

8. Dredge and fill permits under section 404 of the Clean Water Act, 33 U.S.C. Section 1344.

9. Other relevant environmental permits.

(g) A topographic map (or other map if a topographic map is unavailable) extending one mile beyond the property boundaries of the source depicting the facility and each of its intake and discharge structures; each of its hazardous waste treatment, storage, or disposal facilities; each well where fluids from the facility are injected underground; and those wells, springs, surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant within a quarter mile of the facility property boundary.

(h) A brief description of the nature of the business.

(2) A permit application will be processed when:

(Rule 1200-04-06-.08, continued)

(a) A completed application form, all information required by these Rules and any supplemental information, as may be required, is submitted to the Department. The application shall identify (by narrative description, illustrations, maps, or other suitable means) and describe by geographic or geometric terms (including lateral and vertical limits and gradients) the area intended to be used as an injection zone.

(b) The feasibility requirements that apply to the proposed injection well have been satisfied.

(3) Duration of permits.

(a) Permits for Class I and V wells and authorizations for Class V wells shall be effective for a fixed term not to exceed five (5) years. Permits for Class II and III wells may be issued for a period up to the operating life of the facility. Each Class II or III well permit shall be reviewed at least once every five (5) years to determine whether it should be modified, revoked and reissued, or revoked as provided in Paragraphs 1200-04-06-.08(7) and (8).

(b) Except as provided by the Uniform Administrative Procedures Act, T.C.A. §§4-5-101 et seq., the term of a permit shall not be extended by modification beyond the maximum duration specified in this rule.

(c) The Department may issue any permit for a duration that is less than the full allowable term under this rule.

(4) Schedules of compliance

(a) The permit may when appropriate specify a schedule of compliance.

(b) Time for compliance. Any schedule of compliance shall require compliance as soon as possible but in no case later than three (3) years after the effective date of the permit.

(c) Interim dates. Except as provided in this section, if a permit establishes a schedule of compliance which exceeds one (1) year from the date of permit issuance, the schedule shall set forth interim requirements and the dates for their achievements.

1. The time between interim dates shall not exceed one (1) year.

2. If the time necessary for completion of any interim requirement (such as the construction of a control facility) is more than one (1) year and is not readily divisible into stages for completion, the permit shall specify interim dates for the submission of reports of progress toward completion of the interim requirements and indicate a projected completion date.

(d) Reporting. Progress reports shall be submitted no later than thirty (30) days following each interim date and the final date of compliance.

(5) Effect of a permit

(a) A permit may be revoked, suspended or modified during its term for cause, under T.C.A. §69-3-108(f).

(b) The issuance of a permit does not convey any property rights of any sort, or any exclusive privilege.

(Rule 1200-04-06-.08, continued)

(c) The issuance of a permit does not authorize any injury to persons or property or invasion of other property rights, or any infringement of other State, Federal or local laws or regulations. In particular, the issuance of a permit does not relieve a Class I, Class IV or Class V permittee from any applicable requirement he may be subject to under the Tennessee Hazardous Waste Management Act (T.C.A. 6-46-101 et. seq.)

(6) Transfer of permits - A permit may be transferred by the permittee to a new owner or operator as a minor modification if the permit has been modified or revoked and reissued.

(7) Public notice of permit actions and public comment period.

(a) Scope. The Department shall give public notice that the following actions have occurred:

1. A draft permit has been prepared. A draft permit shall contain:

(i) All permit conditions

(ii) All compliance schedules for corrective action; and

(iii) All monitoring requirements

(b) Upon request, the Department shall send to the requestor copies of the foregoing documents.

(c) Timing

1. Public notice of the preparation of a draft permit shall allow at least thirty (30) days for public comment.

2. Public notice of a public hearing shall be given at least thirty (30) days before the hearing. (Public notice of the hearing may be given at the same time as public notice of the draft permit and the two notices may be combined.)

(d) Methods. Public notices of permit actions shall be given by the following methods:

1. By mailing a copy of a notice to the following persons (any person otherwise entitled to receive notice under this paragraph may waive his or her rights to receive notice for any classes and categories of permits):

(i) the applicant;

(ii) any other agency which the Department knows has issued or is required to issue a RCRA, PSD, NPDES or 404 permit for the same facility or activity;

(iii) federal, state and local agencies with jurisdiction over fish, shellfish, and wildlife resources; the Advisory Council on Historic Preservation, state historic preservation officers, and other appropriate government authorities, including any affected States;

(iv) persons on a mailing list developed by:

(I) notifying the public of the opportunity to be put on the mailing list through periodic publication in the public press and in other

publications such as Regional and State funded newsletters, environmental bulletins, or State law journals; and

(II) including those who request in writing to be on the list. (The Department may update the mailing list from time to time by requesting written indication of continued interest from those listed. The Department may delete from the list the name of any person who fails to respond to such a request.)

2. By publication of a notice in a daily or weekly newspaper within the area to be affected by the facility or activity;

3. Any other method reasonably calculated to give actual notice of the action in question to the persons potentially affected by it, including press releases or any other forum or medium to elicit public participation.

(e) Contents. All public notices of permit actions shall contain the following minimum information:

1. Name and address of the Department office processing the permit action for which notice is being given;

2. Name and address of the permittee or permit applicant and, if different, of the facility or activity regulated by the permit;

3. A brief description of the business conducted at the facility or activity described in the permit application;

4. A description of the type and quantity of wastes, fluids, or pollutants which are proposed to be injected;

5. A brief summary of the basis for the permit conditions;

6. Reasons why any requested variances do or do not appear justified;

7. Name, address, and telephone number of a person from whom interested persons may obtain further information including copies of the draft permit, fact sheet when prepared, and the application;

8. A brief description of the applicable comment procedures including, the beginning and ending dates of the comment period, procedures for requesting a hearing, and any other procedures by which the public may participate in the final decision;

9. Reference to the date of previous public notices relating to the permit;

10. Date, time, and place of the hearing;

11. A brief description of the nature and purpose of the hearing including the applicable rules and procedures; and

12. Any additional information considered necessary or proper.

(f) Public comments and requests for public hearings. During the public comment period, any interested person may submit written comments on the permit application or draft

permit and may request a public hearing. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised.

(g) Public hearings. The Department shall hold a public hearing whenever, as evidenced by requests, there is public interest in a draft permit. A public hearing may also be held at the Department's discretion to clarify issues in the permit.

(h) Consideration of comments and response.

1. All comments submitted during the public comment period and all hearing testimony shall be considered in making the final decision.

2. If a decision is reached to issue a final permit, the Department shall respond to comments when the permit is issued. This response shall:

(i) Be made available to the public;

(ii) Specify which provisions, if any, of the draft permit have been changed in the final permit, and the reasons for the change; and

(iii) Briefly describe and respond to all significant comments on the draft permit raised during the public comment period, or during any hearing.

(i) Notice of final permit decision.

1. After the close of the comment period, the Commissioner shall notify the applicant and each person who has submitted written comments, or requested notice, of the final permit decision. This notice shall contain reference to the procedures for appealing a permit decision.

2. A final permit decision shall become effective thirty (30) days after service of notice on the applicant of the final permit decision, unless a later date is specified in the notice, or a petition is filed pursuant to paragraph (j) or (k) below.

(j) Within thirty (30) days of receipt of notice of a final permit decision, or prior to any later date specified in the notice, any person other than the applicant who has filed comments on that permit, or its drafts, may petition the Board for a hearing on the permit or any condition of the permit. The petition shall include a statement of all of the permit conditions which are challenged and the reasons supporting the challenge. This hearing shall be legislative in nature and shall not be a contested case within the meaning of T.C.A. §4-5-102, the Uniform Administrative Procedures Act. The Board shall make a recommendation on issuance or denial of the permit or permit conditions to the Commissioner that shall become final and effective in thirty (30) days if the Commissioner takes no action.

(k) Within thirty(30) days of receipt of notice of a final permit decision, the permit applicant may file a petition with the Board for a contested case hearing pursuant to T.C.A. §§69-3-105 and 4-5-301 et seq.

(8) Modification or revocation and reissuance of permits.-When the Department determines that one or more causes exist for modification or revocation and reissuance of a permit, the Department may modify or revoke and reissue the permit accordingly, subject to the limitations of subparagraph (c) of this paragraph, and may request an updated application if necessary. When a permit is modified, only the conditions subject to modification are reopened. If a permit is revoked and reissued, the entire permit is reopened and subject to

revision and the permit is reissued for a new term. If a permit modification satisfies the criteria for minor modifications, the permit may be modified without a draft permit or public review. Otherwise, a draft permit must be prepared and public review procedures as set out herein must be followed.

(a) Causes for modification. The following are causes for modification and may be causes for revocation and reissuances.

1. Alterations. There are material and substantial alterations or additions to the permitted facility or activity which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit.

2. Information. The Department has received information that was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and would have justified the application of different permit conditions at the time of issuance. This cause shall include any information indicating that cumulative effects on the environment are unacceptable.

3. New regulations. The standard or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued. Permits other than for Class 11 or III wells may be modified during their terms for this cause, only as follows:

(i) For promulgation of amended standards or regulations, when:

(I) The permit condition requested to be modified was based on a Departmental regulation;

(II) The Department has revised withdrawn, or modified that portion of the regulation on which the permit condition was based; and

(III) A permittee requests modification within thirty (30) days after public notice of the action on which the request is based.

(ii) For judicial decisions, a court of competent jurisdiction has remanded and stayed Department promulgated regulations if the remand and stay concern that portion of the regulations on which the permit condition was based and a request is filed by the permittee in accordance with these regulations within thirty (30) days of judicial remand.

4. Compliance schedules. The Department determines good cause exists for modification of a compliance schedule, such as an act of God, strike, flood, or materials shortage or other events over which the permittee has little or no control and for which there is no reasonably available remedy.

(b) Causes for modification or revocation and reissuance. The following are causes to modify or, alternatively, revoke and reissue a permit.

1. Cause exists for revocation and the Department determines that modification or revocation and reissuance is appropriate

2. The Department has received notification of a proposed transfer of the permit.

(c) Facility siting. Suitability of the Facility location will not be considered at the time of permit modification or revocation and reissuance unless new information or standards

indicate that a threat to human health or the environment exists which was unknown at the time of permit issuance.

(9) Revocation of permits or denial of renewal application.

(a) The Department may revoke a permit during term, or deny a permit renewal application for the following causes:

1. Noncompliance by the permittee with any condition of the permit;

2. The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time; or

3. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or revocation.

(b) Notice of intent to revoke and reissue, or terminate. If the Department tentatively decides to revoke and reissue a permit, a notice of intent to revoke and reissue, or notice of intent to terminate shall be issued.

(10) Minor Modifications-Upon the consent of the permittee, the Department may modify a permit to make the corrections or allowances for changes in the permitted activity listed in this paragraph without following the entire permitting procedure. Minor modifications may only:

(a) Correct typographical errors;

(b) Require more frequent monitoring or reporting by the permittee;

(c) Change an interim compliance date in a schedule of compliance, provided the new date is not more than 120 days after the date specified in the existing permit and does not interfere with attainment of the final compliance date requirement;

(d) Change quantities or types of fluids injected which are injected within the capacity of the facility as permitted and, in the judgment of the Department would not interfere with the operation of the facility or its ability to meet conditions described in the permit and would not change its classification;

(e) Change a construction requirement approved by the Department, provided that any such alteration shall comply with all requirements of this rule; or

(f) Amend a plugging and abandonment plan.

(g) Allow for a change in ownership or operational control of a facility where the Commissioner determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittees has been submitted to the commissioner.

(11) Confidentiality of information-The handling of confidential information shall be governed by T.C.A. § 69-3-113.

(12) Signatories to applications and reports.

(Rule 1200-04-06-.08, continued)

(a) Applications. All permit applications, shall be signed as follows:

1. For a corporation: by a responsible corporate officer. For the purpose of this part, a responsible corporate officer means (1) president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function or any other person who performs similar policy or decision making functions for the corporation, or (II) the manager of one or more manufacturing, production or operation facilities employing more than 250 persons or having gross annual sales or expenditures exceeding 25 million dollars (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. Note: The Department does not require specific assignments or delegations of authority to responsible corporate officers identified in subpart (f). The Department will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the Commissioner to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under item (II) rather than the specific individuals.

2. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

3. For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.

(b) Reports. All reports required by permits, and other information requested by the Department, shall be signed by a person described in sub-paragraph (a) above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described in subparagraph (a);

2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or well field, superintendent, or position of equivalent responsibility (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

3. The written authorization is submitted to the Department.

(c) Changes to authorization. If an authorization under subparagraph (b) is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of subparagraph (b) must be submitted to the Department prior to or at the time any reports, information, or applications signed by an authorized representative are submitted.

(d) Certification. Any person signing a document under this section shall make the following certification.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of

my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

(13) Permit Requirements—All UIC permits shall contain permit conditions established by the Commissioner as necessary to fulfill the purposes of the Tennessee Water Quality Control Act, T.C.A. §§69-3-101 et seq., a description of the injection zone being permitted, and any necessary corrective action as stated under Rule 1200-04-06-.09(5). The permit conditions shall be set at levels to prevent adverse effects to persons utilizing the ground water resource after consideration of at least the following factors: any guidelines set for certain pollutants by U.S.E.P.A., the flow characteristics of ground water, risk to humans and the risk of migration. The following conditions (a) through (n) apply to all UIC permits. All conditions applicable to all permits shall be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to these regulations must be given in the permit.

(a) The permittee must comply with all conditions of this permit and all applicable laws and regulations. Any permit noncompliance constitutes a violation of the Tennessee Water Quality Control Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

(b) If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit prior to expiration of this permit.

(c) It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(d) The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from non-compliance with this permit.

(e) The permittee shall at all times properly operate and maintain all facilities and systems of related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

(f) This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

(g) This permit does not convey any property rights of any sort, or any exclusive privilege.

(h) The permittee shall furnish to the Department, within a time specified, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.

(Rule 1200-04-06-.08, continued)

(i) The permittee shall allow Department personnel, or an authorized representative of the Department, upon the presentation of credentials to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

3. Inspect at reasonable times any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purposes or assuring permit compliance or as otherwise authorized by the Tennessee Water Quality Control Act, any substances or parameters at any location.

(j) Monitoring and records.

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The permittee shall monitor injection fluids, injection operations, and local ground water supplies, in accordance with the requirements for the applicable class of well stated in rules 1200-04-06-.10 through 1200-04-06-.14.

2. The permittee shall retain records of all monitoring information, including the following:

(i) Calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the Department at any time; and

(ii) The nature and composition of all injected fluids until three years after the completion of any plugging and abandonment procedures. The Department may require the owner or operator to deliver the records to the Department at the conclusion of the retention period.

3. Records of monitoring information shall include:

(i) The date, exact place, and time of sampling or measurements;

(ii) The individual(s) who performed the sampling or measurements;

(iii) The date(s) analyses were performed;

(iv) The individual(s) who performed the analyses;

(v) The analytical techniques or methods used; and

(vi) The results of such analyses.

(Rule 1200-04-06-.08, continued)

(k) All applications, reports, or information submitted To the Department shall be signed and certified.

(l) Reporting requirements.

(i) Planned Changes. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility.

(ii) Anticipated noncompliance. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(iii) Transfers. See subsections (5), (7), (8) and (9) of this Rule.

(iv) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(v) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 30 days following each schedule date.

(vi) Twenty-four hour reporting. The permittee shall report any noncompliance which may endanger health or the environment, including:

(I) Any monitoring or other information which indicates that any contaminant may cause an endangerment to USDWs; or

(II) Any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between USDWs.

Any such information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 72 hours of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause, the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate and prevent reoccurrence of the noncompliance.

(vii) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs i, iv, v, and vi of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (l)(vi) of this section.

(viii) Other information. Where the permittee becomes aware that it failed to submit any relevant acts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.

(m) Requirements prior to commencing injection. Except for all new wells authorized by an area permit under rules 1200-04-06-.11 and 1200-04-06-.12, a new injection well may not commence injection until construction is complete, and

1. The permittee has submitted notice of completion of construction to the Director; and

2. (i) The Department has inspected or otherwise reviewed the new injection well and finds it is in compliance with the conditions of the permit; or

(ii) The permittee has not received notice from the Director of his or her intent to inspect or otherwise review the new injection well within 13 days of the date of the notice in paragraph (m)(l) of this section, in which case prior inspection or review is waived and the permittee may commence injection. The Director shall include in his notice a reasonable time period in which he shall inspect the well.

(n) The permittee shall notify the Department at such times as the permit requires before conversion or abandonment of the well, or in the case of area permits, before closure of the project.

(o) The permittee shall at all times maintain sufficient financial resources to allow for the proper plugging and abandonment of the well. In the event of a change of ownership or other transfer of permit, the transferee shall provide proof of financial responsibility before continued operation.

1. For Class I and III wells, a surety bond or cash bond shall be filed with the Department prior to permit issuance. At the Department's discretion, other forms of financial assurance for Class I wells may be acceptable.

2. Class II wells shall have a surety bond or cash bond for a total of $4,000 per well. If there is an existing $2,000 bond with the Tennessee Oil and Gas Board, the bond under this rule shall be $2,000. If no bond currently exists, the bond shall be for $4,000.

3. At the Department's discretion, a bond may be required for Class V wells.

(p) The owner or operator of a Class I, II or III well permitted under this part shall establish prior to commencing injection or on a schedule determined by the Department, and thereafter maintain mechanical integrity for the well. When the Department determines that a Class I, II, or III well lacks mechanical integrity, the Department shall give written notice of the determination to the owner or operator. Unless the Department requires immediate cessation, the owner or operator shall cease injection into the well within 48 hours of receipt of the Department's determination. The Department may allow plugging of the well pursuant to the requirements of this rule or require the permittee to perform such additional construction, operation, monitoring, reporting and corrective action as is necessary to prevent the movement of fluid into or between USDWs caused by the lack of mechanical integrity. The owner or operator may resume injection upon written notification from the Department that the owner or operator has demonstrated mechanical integrity pursuant to this rule. The Department may allow the owner or operator of a well which lacks mechanical integrity to continue or resume injection, if the owner or operator has made a satisfactory demonstration that there is no movement of fluid into or between USDWs.

(q) A Class I, II or III permit shall include and a Class V permit may include, conditions to insure that plugging and abandonment of the well will not allow the movement of fluids into or between USDWs. Where the Department's review of an application indicates that the permittee's plan is inadequate, the Department may require the applicant to

(Rule 1200-04-06-.08, continued)

revise the plan, prescribe conditions meeting the requirements of this paragraph, or deny the permit.

Authority: *T.C.A. §§4-5-201 et seq., 69-3-101 et seq., 69-3-105, and Public Chapter 417, Acts of 1991.* ***Administrative History:*** *Original rule filed August 9, 1985; effective September 8, 1985. Amendment filed April 11, 2001; effective June 25, 2001. Amendments filed February 17, 2010; effective May 18, 2010.*

1200-04-06-.09 GENERAL STANDARDS AND METHODS.

(1) Applicability. The provisions of this subchapter set forth standards and requirements that apply to all classes of injection wells unless specifically excluded or contradicted by provisions applicable to a particular class of well.

(2) Supervisory Standard. All phases of well construction, testing and operation shall be supervised by a person who is knowledgeable and experienced in practical drilling engineering and who is familiar with the special conditions and requirements of injection well construction.

(3) Area of Review

(a) Descriptions of the area of review are subject to approval by the Department according to either subpart 4(i) or (ii) of this subparagraph. The Commissioner may solicit input from the owners and operators of injection wells within the State as to which method is most appropriate for each geographic area or field. In no event shall the boundary of an area of review be less than a radius of one (1) mile from any injection well covered by the appropriate authorization. The following factors are to be included in the description:

1. Chemistry of the injection and formation fluids;

2. Hydrogeology, including the direction of ground water movement;

3. Ground water use and dependence; past, present, and future, as documented by public record; and

4. The area of potential impact as determined by either subpart (i) the calculated zone of endangering influence or subpart (ii) a fixed radius.

(i) Zone of endangering influence.

(I) The zone of endangering influence shall be:

I. In the case of application(s) for well permit(s) under Rule 1200-04-06-.08, that area the radius of which is the lateral distance in which the pressures in the injection zone may cause the migration of the injection and/or formation fluid into an underground source of drinking water; or

II. In the case of an application for an area permit, the project area plus a circumscribing area the width of which is the lateral distance from the perimeter of the project area, in which pressures in the injection zone may cause the migration of the injection and/or

formation fluid into an underground source of drinking water.

(II) Computation of the zone of endangering influence may be based upon the parameters listed below and should be calculated for an injection time period equal to the expected life of the injection well or pattern. The following modified Theis equation illustrates one form which the mathematical model may take.

$$r = \left(\frac{2.25KHt}{S10^{x}}\right)^{1/2}$$

where:

$$X = \frac{4\pi KH(h_w - h_{bo}}{2.3Q} XS_pG_b$$

r = Radius of endangering influence from injection well (length)
K = Hydraulic conductivity of the injection zone (length/time)
H = Thickness of the injection zone (length)
t = Time of injection (time)
S = Storage coefficient (dimensionless)
Q = Injection rate (volume/time)
h_{bo} = Observed original hydrostatic head of injection zone (length) measured from the base of the lowermost underground source of drinking water
h_w = Hydrostatic head of underground source of drinking water (length) measured from the base of the lowermost underground source of drinking water
S_pG_b = Specific Gravity of fluid in the injection zone (dimensionless)
Π (pi) = 3.142 (dimensionless)

The above equation is based on the following assumptions:

I. The injection zone is homogeneous and isotropic;

II. The injection zone has infinite areal extent;

III. The injection well penetrates the entire thickness of the injection zone;

IV. The well diameter is infinitesimal compared to “r”; when injection time is longer than a few minutes; and

V. The emplacement of fluid into the injection zone creates instantaneous increase in pressure.

(ii) Fixed radius.

(I) In the case of application(s) for a well permit(s), a fixed radius around the well of not less than one mile may be used.

(II) In the case of an application for an area permit, a fixed width of not less than one mile for the circumscribing area may be used.

In determining the fixed radius, the following factors shall be taken into consideration: chemistry of the injected and formation fluids; hydrogeology; population and ground-water use and dependence; and historical practices in the area.

(b) The Department may require an owner or operator of an existing or proposed injection well to submit information necessary to establish the area of review.

(4) Mechanical Integrity Sandards

(a) An injection well has mechanical integrity if there is no significant leak in the casing, tubing or packer, and if there is no significant fluid movement into USDWs through vertical channels in and adjacent to the injection well bore hold.

(b) The following tests shall be used to evaluate the mechanical integrity of an injection well:

1. Monitoring of annulus pressure, or pressure test with liquid or gas to detect any leaks in casing, tubing, or packer;

2. Appropriate geophysical logs to detect any fluid movement through vertical channels in and adjacent to the injection well borehole.

(c) The Department may allow the use of tests to evaluate mechanical integrity other than those listed in this Rule if such tests have been approved in writing by the Department and, if the Department receives authority for an underground injection control program from the U.S. E.P.A., the E.P.A. Administrator or his designee.

(d) Methods and standards generally accepted in the industry shall be applied in conducting and evaluating the tests required by this section.

(5) Corrective Action Standards

(a) Standards

1. Applicants for injection well permits shall identify the location of all known wells within the area of review which penetrate the injection zone, or in the case of Class II wells operating over the fracture pressure of the injection formation, all known wells within the area of review penetrating formations affected by the increase in pressure. For such wells which are improperly sealed, completed or abandoned, the applicant shall also submit a plan consisting of such steps or modifications as are necessary to prevent movement of fluids into USDWs.

(b) Requirements

1. Any permit issued for an existing injection well (other than a Class II well) requiring corrective action shall include a compliance schedule requiring any corrective action accepted or prescribed shall be completed as soon as possible.

2. No permit for a new injection well may authorize injection until all required corrective action has been taken.

(c) Injection pressure limitation-The Department may require as a permit condition that injection pressure be so limited that pressure in the injection zone does not exceed

hydrostatic pressure at the site of any improperly completed or abandoned well within the area of review. This pressure limitation shall satisfy the corrective action requirement. Alternatively, such injection pressure limitation can be part of a compliance schedule and last until all other required corrective action has been taken.

(d) In determining the adequacy of corrective action to prevent fluid movement into or between formations containing USDWs, the following criteria and factors shall be considered by the Department:

1. Nature and volume of the injected fluid;

2. Nature of native fluids, and by-products of injection;

3. Potentially affected population;

4. Geology;

5. Hydrology;

6. History of the injection operation;

7. Completion and plugging records;

8. Abandonment procedures in effect at the time the well was abandoned; and

9. Hydraulic connections with formations containing USDWs.

(e) Class III wells only.

When setting corrective action requirements, the Commissioner shall consider the overall effect of the project on the hydraulic gradient in the potentially affected USDWs, and the corresponding changes in potentiometric surface(s) and flow direction(s) rather than the discrete effect of each well. If a decision is made that corrective action is not necessary based on the determinations above, the monitoring program required in Rule 1200-04-06-.12 shall be designed to verify the validity of such determinations.

(6) Plugging and Abandonment Standards.

(a) An injection well, or a test or monitor well associated with an injection well, must be abandoned and plugged when:

1. the well is no longer usable for its intended purpose or other purpose as approved by the Department;

2. the well poses a potential threat to the quality of the waters of the state; or

3. the well has not been operated for two (2) years.

(b) When it is necessary to plug and abandon a well covered by these regulations, an application for a plugging and abandonment permit will be submitted to the Department on the form prescribed. The application will include:

1. Reasons for abandonment;

2. A copy of the approved plugging and abandonment plan which was submitted with the application for construction or operation permits; and

3. Any modifications deemed necessary to the previously approved plugging and abandonment plan.

(c) The owner/operator of an abandoned injection well or facility may be required to submit all pertinent records of construction, operation and abandonment to the Department within a period of not less than one year following the date of abandonment.

(d) Any well that is to be permanently plugged and abandoned shall be completely filled and sealed in such a manner that vertical movement of fluid either into or between formation(s) containing USDWs through the bore hole is not allowed. The proposed method of filling and the type of material to be used shall be approved by the Department.

(e) As a minimum, permanent seals must be placed in the bore hole opposite (1) the lowermost confining bed, and (2) each intermediate confining bed between successive formation(s) containing USDWs.

(f) Seals intended to prevent vertical movement of water in a well bore hole shall be composed of cement, sand-and-cement, or concrete or other sealing materials demonstrated to the satisfaction of the Department to be effective.

(g) The minimum length of a seal required in (f), above, shall be 20 feet.

(h) The bore hole above the uppermost formation(s) containing a USDW shall be filled with materials less permeable than the surrounding undisturbed formations, the uppermost five (5) feet of the bore hole (at land surface) shall be filled with a material appropriate to the intended use of the land.

(i) The materials used to fill spaces between well seals shall be filled with disinfected dimensionally stable materials, compacted mechanically if necessary to avoid later settlement except that cement, cement and sand, and concrete do not require disinfection. Disenfection of well filling materials shall be accomplished by using chlorine compounds such as sodium hypochlorite or calcium hypochlorite.

(j) Temporary bridges may be used to avoid having to fill very deep holes below the deepest point at which a permanent seal is required. Temporary bridges used to provide a base for a permanent seal shall consist of materials approved by the Department.

(k) After a cessation of operations of two years, the owner or operator shall plug and abandon the well in accordance with the plan unless he:

1. Provides notice to the commissioner; and

2. Describes actions or procedures, satisfactory to the Commissioner that the owner or operator will take to ensure that the well will not endanger USDWs during the period of temporary abandonment. These actions and procedures shall include compliance with the technical requirements applicable to active injection wells unless waived by the commissioner.

(7) Placement of sealing materials.

(Rule 1200-04-06-.09, continued)

(a) Approved sealing materials used in abandonment operations shall be introduced at the bottom of the well or interval to be sealed and placed progressively upward to the top of the well. All such sealing materials shall be placed in such a way as to avoid segregation or dilution of the sealing materials. The method of emplacing materials shall be approved by the Department. Dumping sealing material from the top of the well shall not be allowed.

(b) Permanent seals shall be placed in wells or bore holes opposite confining beds between aquifers which are identifiable as, or are suspected of being, hydraulically separated under natural, undisturbed conditions. After the required seal has been installed, the remainder of the confining zone between formations containing USDWs may be filled with sand, sand and gravel, or other rock material acceptable to the Department.

(8) Special Conditions.

(a) The permanent sealing of flowing wells or wells that have a positive shut-in pressure head at the land surface shall be accomplished only after the wells have been prepared in such a way as to prevent any backflow of water or other fluids at the land surface. This can be accomplished by introducing high specific gravity fluids at the bottom of the bore hole and filling the hole with the fluid until all flow ceases or the shut-in pressure is reduced to zero. If the displaced fluid constitutes a contaminant, special handling will be required to avoid any threat to USDWs.

(b) Prior to abandonment, any Class I or Class III well or any monitoring well that extends to the top of the shallowest injection zone shall be sealed from the top of the shallowest injection zone to the land surface with neat cement grout or an approved equivalent cementitious material such as neat cement with a maximum of 5 percent by weight of commercially processed bentonite.

(c) The following shall be considered in determining the adequacy of a plugging and abandonment plan for injection wells:

1. The type and number of plugs to be used;

2. The placement of each plug including the elevation of the top and bottom;

3. The type, grade and quantity of plugging material to be used;

4. The method of placement of the plugs;

5. The procedure used to plug and abandon the well;

6. Any newly constructed or discovered wells, or information, including existing well data, within the area of review;

7. Geologic formations present including but not limited to type of strata, structure and location of any aquifer;

8. Economic conditions; and

9. Such other factors that may affect the adequacy of the plan.

(9) Verification of Procedures.

(Rule 1200-04-06-.09, continued)

(a) Except under emergency conditions the Department is to receive thirty (30) days advance notice of the intent to plug and abandon either an injection or monitoring well in order to permit Departmental personnel to witness the procedure.

(b) Within ninety (90) days after completion of plugging, the permittee shall provide to the Department documentation that the well was adequately plugged and abandoned.

(10) Evidence of financial responsibility shall be demonstrated to accomplish all actions required under these rules, including all plugging and abandonment activities. This financial responsibility requirement does not apply to those Class V wells which are permitted by rule.

(11) The Commissioner may require, by written notice on a selective well-by-well basis, an owner or operator of an injection well to establish and maintain records, make reports, conduct monitoring, and provide other information as is deemed necessary to determine whether the owner or operator has acted or is acting in compliance with T.C.A. § 69-3-101 et seq., Tennessee Water Quality Control Act or its implementing regulations.

(12) All injection wells must be placed on a plat with the Register of Deeds by the seller of the individual properties that the injection well is located on or the injection zone is beneath. The owner/operator of the injection well shall have contractual agreement for access to the injection well at all reasonable times.

(13) Any person owning or operating an injection well shall keep the Department advised of his or her current address and must readily accept all mail sent by the Department. For the purposes of this Rule, registered or certified mail sent with proper postage to the registered owner or operator's last known address shall be considered adequate notification regardless of whether the mail is accepted or returned unclaimed.

Authority: *T.C.A. §§4-5-201 et seq., 69-3-101 et seq., 69-3-105, and Public Chapter 417, Acts of 1991.* ***Administrative History:*** *Original rule filed August 9, 1985; effective September 8, 1985. Amendment filed April 11, 2001; effective June 25, 2001. Amendments filed February 17, 2010; effective May 18, 2010.*

1200-04-06-.10 CLASS I WELLS.

(1) The following are prohibited:

(a) Subsurface emplacement of fluids containing hazardous waste into ground water.

(b) Subsurface emplacement of waste fluids into ground water in a location containing extractable energy-related resources including but not limited to oil, gas, oilshale, coal and lignite. (See attached Figure A)

(c) Subsurface emplacement of waste fluids into ground water in areas characterized by regional rock deformation such as of the magnitude that occurs in eastern Tennessee. (See attached Figure A)

(d) Subsurface emplacement of waste fluids into or beneath aquifers composed of uncemented sand such as occurs in western Tennessee. (See attached Figure A)

(e) The application of pressures sufficient to initiate new fractures or propagate existing fractures in the injection or confining zone.

(2) Permit Application for Class I Wells

(Rule 1200-04-06-.10, continued)

(a) Three separate and independent permits will be needed for Class I Wells. They are:

1. Construction permits;

2. Operating permits; and

3. Abandonment and plugging permits.

(b) The counties in the following list generally do not have the characteristics enumerated in rule 1200-04-06-.10(1) above. However, if such characteristics do exist in a particular location the prohibitions in section (1) above would apply.

Bedford	Houston	Perry
Cannon	Humphreys	Robertson
Cheatham	Lawrence	Rutherford
Coffee	Lewis	Smith
Davidson	Lincoln	Stewart
DeKalb	Macon	Sumner
Dickson	Maury	Trousdale
Franklin	Marshall	Warren
Giles	Moore	Williamson
Hickman	Montogomery	Wilson

(3) Construction Permit Requirements

(a) Feasibility Study-An application for a permit to construct a new Class I injection well or for a permit modification to inject a fluid which has not been authorized by the existing permit shall be considered only after a thorough evaluation of all reasonable disposal methods. This requirement shall be satisfied as follows:

1. Submission to the Department of a technical report providing:

(i) a characterization of the fluid to be injected;

(ii) the source of the fluid to be injected;

(iii) an evaluation of all reasonable methods of disposal which may be used for each fluid to be injected;

(iv) a demonstration of the effect of the fluid on the host rock and the ground water; and

(v) documentation that underground injection is a feasible means of the permitting process or disapprove the proposed injection well.

2. After a review, the Department, will either approve continuation of the permitting process or disapprove the proposed injection well.

(b) Description of Area-If the Department approves the feasibility study, a hydrogeologic description of the area surrounding the site of the proposed injection facility must be submitted. The study area shall extend for at least a two and one-half miles (2 ½) radius of the site. The description shall include but not be limited to the following:

(Rule 1200-04-06-.10, continued)

1. A set of inventories and maps that shall provide the following information to the extent that such information is known to the applicant or is available in public records.

   (i) A tabulation of data on all wells of public record (to include water wells) located within the study area, to include:

      (I) method of construction,

      (II) date drilled,

      (III) location,

      (IV) depth,

      (V) record of plugging or completion, and

      (VI) the present use of the well.

   (ii) A tabulation of surface waters located within the study area to include:

      (I) type

      (II) location, and

      (III) use.

   (iii) A map(s) showing the location of:

      (I) wells,

      (II) surface waters, and

      (III) other pertinent surface features such as roads, mines, quarries, residences and planned developments, within the study area.

2. Hydrogeological data including maps and cross sections showing local and regional geological structure, the horizontal and vertical extent of formation(s) containing a USDW, the proposed injection zone, and the direction of flow of water in each formation(s) containing a USDW and proposed injection zone.

3. After a review, the Department will either approve continuation of the permitting process or disapprove the proposed injection well.

(c) Construction Plans-Application for a permit to construct a Class I Well shall contain a proposed step-by-step drilling plan. The drilling plan must specify the proposed drilling, sampling, coring, and testing program and adhere to the design criteria and construction standards provided in this rule. If the Department determines that the construction permit application meets the requirements of subsections (d), (e), and (f) of this rule, the construction permit shall be issued.

(d) Design Criteria

1. All Class I wells shall be designed and constructed in such a fashion they inject into a formation which is beneath the lowermost formation containing a USDW.

2. All Class I wells shall be cased and cemented to prevent the movement of fluids into or between formation(s) containing a USDW and to maintain the quality of aquifers above the injection zone that may be used for monitoring or other purposes.

3. A deviation survey will be run at sufficiently frequent intervals to ensure that the casing can be set and centered for cementing.

4. The Department may require directional surveys, if, after an analysis of the well design and drilling program, it is deemed necessary.

5. The construction should be supervised by a person knowledgeable and experienced in drilling and completion of injection wells.

6. All Class I injection wells shall inject fluids through tubing with a packer set immediately above the injection zone, or tubing with an approved fluid seal as an alternative. The tubing, packer, and fluid seal shall be designed for the expected service.

(e) Casings

1. The casings used in the construction of each newly drilled Class I well shall be designed for the life expectancy of the well.

2. The number, thickness, type of materials, and length of casing shall be sufficient to protect the USDWs and the integrity of the well and the confining strata.

3. Exact setting depths for all casings shall be determined in the field, based on all available information, in order to best protect USDWs.

(f) Cementing-The applicant shall submit the proposed cementing program with the drilling plan. The proposed program should insure that an adequate bond can be achieved between the casing and the borehole.

1. The cementitious material used in the construction of each newly drilled well shall be designed for the life expectancy of the well. In determining and specifying casing and cementing requirements, the following factors shall be considered:

(i) depth to the injection zone;

(ii) depth to the bottom of all formation(s) containing USDWs;

(iii) injection pressure, external pressure, internal pressure, and axial loading;

(iv) hole size;

(v) size and grade of all casing strings (wall thickness, diameter, nominal weight, length, joint specification and construction material);

(vi) corrosiveness of injected fluid, formation fluids, and temperatures;

(vii) lithology of injection and confining zones;

(viii) type, grade, and amount of cementitious material.

2. Cementitious material must be compatible with the injected fluid, native fluids, and the formations penetrated by the bore hole.

3. Use of additives to the cementitious materials used for mixing shall be determined by the applicant, provided the integrity, containment, corrosion protection, and structural strength of the cementitious material are not significantly affected. Accurate records shall be kept and recorded of all additives used.

4. Prior to cementing, the hole shall be conditioned in such a way as to optimize bonding of the cement to the casing and formation, and to prevent channeling.

5. Placement of cementitious material shall be in such a manner that the purposes and characteristics of the cement are retained, and shall be subject to Department approval.

6. The applicant shall submit a cement testing program with the permit application for Department approval. The purpose of the cement testing program is to insure that the cement seal is adequate to prevent migration of fluids in channels, microannular spaces, or voids in the cement. The following methods of testing, as a minimum, shall be considered:

(i) pressure testing of casing - to not less than 1.5 times the expected injection pressure;

(ii) temperature log - must be run within forty-eight (48) hours after cementing; and

(iii) cement bond log.

(g) Testing during drilling and construction of new Class I wells.-Appropriate logs and other tests shall be conducted during the drilling and construction of new Class I wells. A descriptive report interpreting the results of such logs and tests shall be prepared by a qualified log analyst and submitted to the Department. At a minimum, such logs and tests shall include:

1. Directional surveys on all holes that are constructed by first drilling a pilot hole, and then enlarging the pilot hole by reaming or another method. Construction of pilot holes is not encouraged.

2. Such other logs and tests as may be needed after taking into account the availability of similar data in the area of the drilling site, the construction plan, and the need for additional information. In determining which logs and tests shall be required, the following logs shall be considered for use in the following situations:

(i) For surface casing intended to protect USDWs:

(I) resistivity, spontaneous potential, and caliper logs before the casing is installed; and

(II) a cement bond, temperature, or density log after the casing is set and cemented.

(ii) For intermediate and long strings of casing intended to facilitate injection:

(I) resistivity, spontaneous potential, porosity, and gamma ray and caliper logs before the casing is installed;

(II) fracture finder logs; and

(III) a cement bond, temperature, or density log after the casing is set and cemented.

3. The following information concerning the proposed injection zone shall be determined or calculated for new Class I wells:

(i) hydrostatic pressure head;

(ii) temperature of the native fluid;

(iii) geostatic pressure;

(iv) other physical and chemical characteristics of the proposed injection zone;

(v) physical and chemical characteristics of the native fluids;

(vi) generalized direction of fluid flow in the proposed injection zone; and

(vii) other information as deemed necessary by the Department

(h) Testing Integrity of Completed Class I Well(s)

1. The completed well(s) will be tested to assure that the well(s) will function as built. Tests to be considered shall include, but not be limited to, the followings:

(i) cement bond log;

(ii) temperature log;

(iii) pressure test of final casing to at least 1.5 times the expected injection pressure for one hour, with no pressure drop after temperature correction;

(iv) casing inspection log from top to bottom of the well for baseline monitoring purposes;

(v) injection tests; and

(vi) withdrawal tests - if necessary.

(i) Construction Reports

1. The Department shall be notified when drilling is to commence.

2. The Department will require periodic data reports and progress reports that may include, but not be limited to, the following:

(i) driller’s log;

(ii) geophysical logs;

(iii) core analyses;

(iv) lithologic log;

(v) drill stem test data;

(vi) injection or withdrawal test data;

(vii) pressure test data; and

(viii) construction progress reports.

3. Interpretation of data will be required in the data reports or progress reports at each milestone phase of construction such as completion of the pilot hole, completion of test well, and completion of well performance tests.

4. The applicant shall submit final reports of pertinent data collected with interpretations to the Department with the application for an Injection Well Operation Permit.

(4) Operating Permits

(a) Application for permit to operate any Class I well shall be complete and contain any information necessary to provide:

1. A feasibility study including all of the items required in rule 1200-04-06-.1 0(3)(a). An up-to-date feasibility study must also be submitted with any request for renewal of an operating permit. If the feasibility study is not included, the application for renewal of an operating permit will not be complete.

2. A description of the area of review which applies to each Class I injection well in a manner acceptable to the Department. The description shall take into account the zone of endangering influence. A radius around the injection well field of not less than one mile shall be used as a minimum area of review. A determination of the area of review shall include, but not be limited to, the following information:

(i) the geologic and hydrologic characteristics of the host rock, and the confining unit separating the injection zone from the lowermost formation(s) containing a USDW;

(ii) the characteristics of the injection fluids and native fluids;

(iii) number of people residing in the area of review; and

(iv) ground water use and dependence; past, present, and future to the extent such information is known to the applicant or is on public record.

3. The compatibility of the non-hazardous injected fluid with both the native fluid and the host rock of the in tended injection zone must be demonstrated using laboratory or field data.

4. Contingency plans to prevent pollution of any USDWs or surface water which may be caused by failure of the well or associated equipment.

5. A plan for plugging and abandonment of the proposed injection well. Plugging shall be accomplished so that the injection zones are completely isolated and the movement of fluids into any formation(s) containing a USDW or between formation(s) containing a USDW is prevented. Plugging shall also be accomplished so that surface water cannot enter the well.

6. A report on the status of any corrective action required under these rules.

(b) Operating Requirements for Class I Wells

1. Injection pressure shall not exceed a maximum of 0.60 psi/foot of depth from the land surface to the shallowest injection zone unless the applicant can demonstrate, to the satisfaction of the Department that a higher pressure can be used and will not initiate new fractures or propagate existing fractures in the injection zone.

2. Total pressure shall not exceed the maximum allowable stress of the materials used to construct the well.

3. Injection of wastewater between the outermost casing protecting USDWs and the inner tubing is prohibited.

4. All waste fluids to be emplaced shall be injected through tubing.

5. The annulus between the tubing and the long string of casing shall be filled with a fluid approved by the Department. A pressure, also approved by the Department shall be maintained on the annulus sufficient to allow for continuous monitoring of the mechanical integrity of the well.

6. The Department shall be notified when operation is to commence.

7. Other operational limitations shall be established as necessary on a case-by-case basis.

(c) Operation and maintenance Manual

1. Operation and maintenance procedure manual(s) shall be prepared for injection well disposal facilities, or parts thereof. The manual shall, at a minimum, contain appropriate information discussed in the remainder of this section. The Department may require that the manual be submitted as part of the application for an operating permit.

2. The required procedure shall provide for the reliable and efficient operation and maintenance of the injection well disposal facility, in accordance with the requirements of this rule.

3. The detail of the required manual shall be consistent with the complexity of the system. The manual shall be developed in accordance with the unique requirements of the individual injection well disposal facility and shall provide the operator with sufficient information and description regarding the design, operation, and maintenance criteria and features of the disposal facility involved.

4. Basic hydraulic and engineering design criteria for the injection well disposal facility shall be included in the manual, as well as information and procedures required for normal control and distribution of effluent within the injection well disposal facility.

5. Information concerning process control and performance evaluation for the facility shall be included, as well as equipment and procedural descriptions for emergency operating conditions, alternate discharge as a back-up procedure, and listing of spare parts to have on hand. Regular maintenance of all equipment, repair, safety, and monitoring procedures, laboratory, lab testing equipment, and personnel requirements, and a “trouble shooting” problem guide shall also be included in the manual.

6. A copy of the manual shall be provided to the operator of the injection facility by the permittee. The manual shall be available for reference at the facility or other approved site. The permittee shall maintain at least one copy of the manual.

7. The Department may require revisions to the manual to reflect any facility modifications per-formed in order to comply with the requirements of this chapter, or to reflect experience resulting from facility operation.

(d) Abnormal Events

1. In the event the permittee is temporarily unable to comply with any of the conditions of a permit that may result in imminent harm to the public health or to the environment due to breakdown of equipment, power outages, destruction by hazard of fire, wind, or by other cause, the permittee of the facility shall immediately cease injection and shall notify the Department. Notification shall be made in person, by telephone, or by telegraph to the nearest office of the Department within 24 hours of breakdown or malfunction.

2. A written report shall be required by the Department within 72 hours of the notification referenced in (d)(l), above. The report shall describe the nature and cause of the breakdown or malfunction, the steps being taken or planned to be taken to correct the problem and prevent its reoccurrence, emergency procedures in use pending correction of the problem, and the time when the facility will again be operating in accordance with permit conditions.

3. Under emergency conditions in which the permittee is unable to use the permitted well, the permittee may use an alternate discharge only with prior approval of the Department. The applicant shall address the alternate disposal method in the permit application and the operating manual.

4. In the event a well must be .developed the applicant shall address disposal of backwashed fluids. The disposal method shall be approved by the Department.

(e) Operational Monitoring Requirements

1. In determining the type, number, depth, and location of monitoring wells to be used and the parameters to be measured, the following criteria shall, as a minimum, be considered:

(i) the local geology and hydrology,

(ii) the extent of the area of review;

(iii) the proximity of the injection operation to points of withdrawal of drinking water;

(iv) the operating pressures and attendant hydraulic gradients;

(v) the physical and chemical character of the injected fluid; and

(vi) the number, type, location, and depth of water wells in the area of review.

2. The Department shall be allowed access at reasonable times to the permittee's property and records for the purpose of inspections and the collection of samples for analyses from the wastewater streams associated with the permitted wells.

3. The physical and chemical quality of the native fluid in the injection zone and in the zone(s) to be monitored shall be established prior to injection.

4. The injected fluid shall be analyzed with sufficient frequency to yield representative data on its characteristics.

5. Continuous indicating and recording devices shall be used to monitor fluid level or closed-in surface pressure in monitor wells other than the injection wells.

6. The mechanical integrity of the injection well system shall be examined and evaluated at least once every three years in accordance with the standards contained in this rule.

(f) Class I injection wells shall be monitored as follows:

1. Continuous indicating and recording devices shall be installed and used to monitor the following:

(i) injection rate and daily volume of injected fluids;

(ii) injection pressure; and

(iii) pressure maintained on the annulus between the injection tubing and the long string of casing.

2. Determination shall be made at least twice monthly of the injectivity index of each well used for injection. The method of determination shall be subject to the approval by the Department.

(g) Sampling frequency and procedure for monitoring wells other than the injection well shall include, but not be limited to:

1. The fluids in the zone to be monitored shall be sampled and analyzed with sufficient frequency to yield representative data on its characteristics. The frequency shall be at least monthly.

2. Constituents to be monitored shall be those determined appropriate based on the nature of the waste being injected.

3. Samples must be collected by a method insuring that the sample is representative of the fluid in the zone to be monitored. The method shall be subject to approval by the Department.

(h) Operation Reports

1. The applicant must submit, for Department approval, his proposed methodology for collection and reporting of operational data, to insure that data is collected, correlated, and reported in a fashion that would enable the agency to evaluate well performance.

2. Reporting requirements shall, at a minimum, include:

(i) Quarterly reporting to the Department;

(ii) Monthly average, maximum and minimum values for injection pressure, flow rate, volume, and annular pressure; and

(iii) Results of mechanical integrity and any other periodic test required by the Department shall be reported with the first regular quarterly report after the completion of the test.

3. The results of analyses of representative samples of the injected fluid and water from the monitoring wells shall be submitted on a quarterly basis to the Department. Parameters for such analyses shall be established on an individual basis.

(i) Ambient Monitoring

1. Based on a site-specific assessment of the potential for fluid movement from the well or injection zone and on the potential value of monitoring wells to detect such movement, the Department shall require the owner or operator to develop a monitoring program. At a minimum, the Director shall require:

(i) Monitoring of the pressure buildup in the injection zone annually, including a shut down of the well for a time sufficient to conduct a valid observation of the pressure fall-off curve; and

(ii) Periodic monitoring of the ground water quality in the first aquifer overlying the injection zone.

2. When prescribing a monitoring system the Department may also require:

(i) Continuous monitoring for pressure changes in the first aquifer overlying the confining zone. When such a well is installed, the owner or operator shall, on a quarterly basis, sample the aquifer and analyze for constituents specified by the Department;

(ii) The use of indirect, geophysical techniques to determine the position of the waste front, the water quality in a formation designated by the Department, or to provide other site specific data;

(iii) Periodic monitoring of the ground water quality in the lowermost USDW; and

(Rule 1200-04-06-.10, continued)

(iv) Any additional monitoring necessary to determine whether fluids are moving into or between USDWs.

(5) Plugging and Abandonment Permits

(a) Upon the occurrence of any of the conditions stated in rule 1200-04-06-.09(6)(a), the owner or operator of the well shall submit an application for a permit for plugging and abandonment of the well.

(b) Before any injection well is plugged, the owner or operator shall obtain a permit for the plugging of the well.

(c) The application shall include the items stated in rule 1200-04-06-.09(6)(b).

(d) If the Department finds that the application meets all requirements of these rules, then the permit for plugging and abandonment of the well shall be issues.

(e) Upon completion of plugging and abandonment of a well or wellfield, the permittee shall submit to the Department a Final Report, in accordance with the standards described in rule 1200-04-06-.09(6), which shall include, but will not be limited to, the following:

1. Daily construction reports;

2. Certification of completion in accordance with approved plans and specifications by a person knowledgeable and experienced in the field; and

3. Evidence, such as a sealed copy or certification from the county clerk, that a surveyor's plot of the location of the abandoned wells has been recorded in the county courthouse property records.

(f) The Department shall require post-closure monitoring of Class I wells for at least three (3) years. Results of such monitoring shall be reported quarterly to the Department.

Authority: *T.C.A. §§4-5-201 et seq., 69-3-101 et seq., 69-3-105, and Public Chapter 417, Acts of 1991.* ***Administrative History:*** *Original rule filed August 9, 1985; effective September 8, 1985. Amendment filed April 11, 2001; effective June 25, 2001. Amendment filed March 28, 2002; effective June 11, 2002. Amendments filed February 17, 2010; effective May 18, 2010.*

1200-04-06-.11 CLASS II WELLS. A permit must be obtained from the Department prior to the operation of any Class II injection well except for existing Class II enhanced recovery wells and hydrocarbon storage wells. This requirement is in addition to and separate from any approval or regulatory procedure required by the Tennessee Oil and Gas Board, Department of Environment and Conservation.

(1) Permit Applications

(a) For Class II wells, the Department shall require an applicant to furnish a demonstration of commercial producibility which shall be made as follows:

1. For a Class II well to be used for enhanced oil recovery processes in a field or project containing aquifers from which hydrocarbons were previously produced, commercial producibility shall be presumed by the Department upon evidence that production has occurred in the project area or field.

2. For Class II wells not located in a field or project from which hydrocarbons were previously produced, information such as logs, core data, formation description, formation depth, formation thickness, and formation parameters such as permeability and porosity shall be considered by the Department to the extent such information is available.

(b) Permit applications for Class II wells shall be submitted by the applicant using the appropriate permit application form promulgated by the Department and shall contain any attachments necessary to provide:

1. facility name and location;

2. name and address of legal contacts (agents of process);

3. ownership of facility, including address;

4. a map and a tabulation of data as required by rule 1200-04-06-.10(3)(b)1.

5. a description of the proposed injection system including type and construction of injection wells, nature of injected fluid and any proposed pretreatment;

6. a statement of estimated daily volume of fluid to be injected and maximum injection pressure;

7. appropriate logs of the well with the proposed injection zone marked, in the case of a well already drilled, or; in the case of undrilled wells a statement of the proposed zone to be used for disposal and the approximate depth of said zone;

8. a schematic diagram of the proposed Class II well showing the casing and cementing program together with an explanation thereof; and

9. a statement by the applicant that the proposed Class II well(s) will be completed in such a manner to insure that the injected substances are injected into the proposed injection zone and that provisions have been made for adequate protection of formation(s) containing USDWs and any other zone of commercial value.

10. proposed formation testing program to obtain the information required by rule 1200-04-06-.11(5)(b).

11. proposed stimulation program.

12. proposed injection procedure.

13. proposed contingency plans, if any, to address well failures so as to prevent migration of contaminating fluids into a USDW.

14. plans for meeting the monitoring requirements of rule 1200-04-06-.11(6).

(c) Reserved

(d) Additional requirements for Class II enhanced recovery wells-Applications for Class II enhanced recovery wells must include a description of the reservoir to be enhanced and a state statement relative to the necessity for the use of wells to enhance production of oil or natural gas.

(e) Additional Requirements for Class II Hydrocarbon Storage Wells

Applications for Class II hydrocarbon storage wells must include the following:

1. a map showing the known areal extent of the reservoir to be used for storage and the location of all wells or test holes known to extend into or through the proposed reservoir.

2. a series of maps and geologic cross-sections showing the known subsurface position and structure of the reservoir, the nature of the horizontal and vertical boundaries of the reservoir, and the thickness of the reservoir.

3. a tabulation of the type, construction, depth and current condition of each well or test hole located within the area covered by the reservoir map required above.

4. a description of the procedures to be used to plug or work over existing wells or test holes to prevent migration of injected substances into any aquifer other than the proposed storage reservoir.

5. a description of the method, procedures and devices for testing the integrity of the proposed reservoir to contain the injected substances within the bounds of the reservoir.

(f) The Department may issue a permit on an area basis rather than for each Class II well individually provided that the injection wells are:

1. described and identified by location in permit application(s) if they are existing wells, except that the Department may accept a single description of wells with substantially the same characteristics;

2. within the same well field, facility site, reservoir, project, or similar unit in the same State;

3. operated by a single owner or operator; and

4. used to inject other than hazardous waste.

(g) Area permits shall specify:

1. the area within which underground injections are authorized; and

2. the requirements for construction, monitoring, reporting, operation, and abandonment, for all wells authorized by the permit.

(h) The area permit may authorize the permittee to construct and operate, convert, or plug and abandon wells within the permit area provided:

1. the permittee notifies the Department at such time as the permit requires;

2. the additional well satisfies the criteria in paragraph (f) of this section and meets the requirements specified in the permit under paragraph (g) of this section; and

3. the cumulative effects of drilling and operation of additional injection wells are considered by the Department during evaluation of the area permit application and are acceptable to the Department.

(i) If the Department determines that any well constructed under an area permit does not satisfy any of the requirements of this section, the Department may modify the permit, terminate, or take enforcement action. If the Department determines that cumulative effects of additional wells are unacceptable, the permit may be modified or revoked.

(2) Construction of Class II Wells

(a) All Class II wells shall be cased and cemented to prevent the movement of fluids into or between USDWs and to maintain the quality of aquifers above the injection zone that may be used for monitoring or other purposes.

(b) All Class II wells shall be designed and constructed in such a fashion that they inject into a formation which is beneath the lower-most formation(s) containing USDWs. Class II wells shall be sited in such a fashion that they inject into a formation which is separated from any formation(s) containing USDWs by a confining zone that is free of known open faults or fractures within the area of review.

(c) In the design specifications for Class II wells, the applicant shall address the problem of corrosion, proposed protective measure(s), and if appropriate, proposed methods of monitoring the extent of corrosion subject to Department approval. The applicant shall consider thickness and type of cement, number and thickness of casings, casing material, casing coatings, native fluid quality, injection fluid quality and life expectancy of the well.

(d) Class II wells shall inject fluids through tubing with a packer set immediately above the injection zone, or tubing with an approved fluid seal as an alternative. The tubing, packer, and fluid seal shall be designed for the expected service.

1. The use of other alternatives may be allowed with the written approval of the Department and if the Department receives authority from U.S. E.P.A. for an underground injection control program, the EPA Administrator or his designee. To obtain approval, the applicant shall submit a written request to the Department, which shall set forth the proposed alternative and all technical data supporting its use. The Department will approve the request if the alternative method is deemed capable of providing a comparable level of protection to USDWs.

2. In determining and specifying requirements for tubing, packer, or alternatives, the following factors shall be considered:

(i) depth of setting;

(ii) characteristics of injection fluid (chemical content and corrosiveness);

(iii) injection rate and pressure;

(iv) annular pressure;

(v) temperature, volume, viscosity, and density of injected fluid; and

(vi) type and size of casing.

(e) Department approval is required prior to any remedial procedures that alter the basic design specifications, materials, or character of the well.

(3) Casings

(a) The casings used in the construction of each newly drilled Class II well shall be designed for the life expectancy of the well.

(b) The number, thickness, type of materials, and length of casing shall be sufficient to protect the quality of drinking water resources and the integrity of the well and the confining strata.

(c) Exact setting depths for all casings shall be determined in the field, based on all available information, and subject to the Department's approval.

(4) Cementing

(a) The cementitious material used in the construction of each newly drilled well shall be designed for the life expectancy of the well. In determining and specifying casing and cementing requirements, the following factors shall be considered:

1. depth to the injection zone;

2. depth to the bottom of all formation(s) containing USDWs;

3. injection pressure and external loading;

4. hole size;

5. size and grade of all casing strings (wall thickness, diameter, nominal weight, length, joint specification and construction material);

6. corrosiveness of injected fluid, formation fluids, and temperatures;

7. lithology of injection and confining zones; and

8. type or grade of cementitious material.

(b) In addition, the Department may consider the following factors:

1. nature of formation fluids, and

2. external pressures, internal pressure and axial loading.

(c) Cementitious material must be compatible with the injected fluid, native fluids, and the formation.

(d) Use of the cementitious materials used for mixing shall be determined by the applicant, provided the integrity, containment, corrosion protection, and structural strength of the cement are not significantly affected. Accurate records shall be kept and recorded of all additives used.

(Rule 1200-04-06-.11, continued)

(e) Prior to cementing, the hole shall be conditioned in such a way as to optimize bonding of the cement to the casing and formation, and to prevent channeling.

(f) Placement of cementitious material shall be in such a manner that the purposed and characteristics of the cement are retained, and shall be subject to Department approval.

(g) The applicant shall submit his cement testing program with the permit application for Department approval. The purpose of the cement testing program is to insure that the cement seal is adequate to prevent migration of fluids in channels, microannular space, or voids in the cement. The following methods of testing, as a minimum, shall be considered:

1. pressure testing of casing - to not less than 1.5 times the expected injection pressure;

2. temperature log; and

3. cement bond log.

(5) Testing for Class II Wells

(a) Appropriate logs and other tests shall be conducted during the drilling and construction of new Class II wells. A descriptive report interpreting the results of that portion of those logs and tests which specifically relate to (1) a USDW and the confining zone adjacent to it, and (2) the injection zone and adjacent formations shall be prepared by a knowledgeable log analyst and submitted to the Department. At a minimum, these logs and tests shall include:

1. Deviation checks on all holes constructed by first drilling a pilot hole and then enlarging the pilot hole, by reaming or another method. Such checks shall be at sufficiently frequent intervals to assure that vertical avenues for fluid movement in the form of diverging holes are not created during drilling.

2. Such other logs and tests as may be needed after taking into account the availability of similar data in the area of the drilling site, the construction plan, and the need for additional information that may arise from time to time as the construction of the well progresses. In determining which logs and tests shall be required, the following shall be considered by the Department in setting logging and testing requirements:

(i) For surface casing intended to protect USDWs in areas where the lithology has not been determined:

(I) electric and caliper logs before casing is installed; and

(II) a cement bond, temperature, or density log after the casing is set and cemented.

(ii) For intermediate and long strings of casing intended to facilitate injection:

(I) electric, porosity and gamma ray logs before the casing is installed;

(II) fracture finder logs; and

(III) a cement bond, temperature, or density log after the casing is set and cemented.

(b) At a minimum, the following information concerning the injection formation shall be determined or calculated for new Class II wells or projects:

1. fluid pressure;

2. estimated fracture pressure; and

3. physical and chemical characteristics of the injection zone.

(c) Prior to commencement of injection, wells shall be tested to assure the initial integrity of the casing, tubing and packer, if used, including pressure testing of the casing-tubing annulus.

(d) At least once every five years thereafter, injection wells shall be tested to assure their continued mechanical integrity. The results of these tests shall be reported to the Department. Tests demonstrating continued mechanical integrity shall include the following:

1. measurement of annular pressures in wells injecting at positive pressures under a packer or a balanced-fluid seal;

2. pressure testing of the casing-tubing annulus for wells injecting under vacuum conditions; and

3. such other tests which are demonstrably effective and which may be approved for use by the Department.

(e) Notwithstanding the test procedures outlined above, the Department may require more comprehensive testing of the injection wells when deemed advisable, including the use of tracer surveys, noise logs, temperature logs, or other test procedures or devices.

(f) The Department may order special tests to be conducted prior to the expiration of five years if conditions are believed to so warrant. Any such special test which demonstrates continued mechanical integrity of a well shall be considered the equivalent of an initial test for test scheduling purposes, and the regular five-year testing schedule shall be applicable thereafter.

(g) The injection well operator shall advise the Department of the date and the time that initial, a five-year, or special tests are to commence in order that such tests may be witnessed.

(h) Injection pressure at the wellhead shall not exceed a maximum which shall be calculated so as to assure that the pressure during injection does not initiate new fractures or propagate existing fractures in the confining zone adjacent to USDWs. In no case shall injection pressure cause the movement of injection or formation fluids into USDWs.

(i) Injection between the outermost casing protecting USDWs and the well bore is prohibited.

(6) Monitoring Requirements

(Rule 1200-04-06-.11, continued)

(a) Class II wells shall be so equipped that the flow rate, injection pressure and annular pressure can be determined at any time for each well.

(b) The permittee shall monitor the nature of injected fluids at time intervals sufficiently frequently to yield data representative of their characteristics;

(c) The permittee shall make observation of injection pressure, flow rate, and cumulative volume at least daily.

(d) The results of all monitoring shall be maintained by the operator and made available to the Department upon request.

(e) The Department may grant administrative exception to the requirement set forth in paragraph (c), of this subsection.

(f) Hydrocarbon storage and enhanced recovery may be monitored on a field or project basis rather than on an individual well basis by manifold monitoring. Manifold monitoring may be used in cases of facilities consisting of more than one injection well, operating with a common manifold. Separate monitoring systems for each well are not required provided the owner/operator demonstrates that manifold monitoring is comparable to individual well monitoring.

(g) Monitoring requirements shall, at a minimum, include:

1. Monitoring of the nature of injected fluids at time intervals sufficiently frequent to yield data representative of their characteristics;

2. Observation of injection pressure, flow rate, and cumulative volume at least with the following frequencies:

(i) Weekly for produced fluid disposal operations;

(ii) Monthly for enhanced recovery operations;

(iii) Daily during the injection of liquid hydrocarbons and injection for withdrawal of stored hydrocarbons;

(iv) Daily during the injection phase of cyclic steam operations; and

(v) Recording of one observation of injection pressure, flow rate and cumulative volume at reasonable intervals no greater than 30 days.

3. Maintenance of the results of all monitoring until the next permit review.

(7) Commencement, Discontinuance, and Abandonment of Injection Operations

The following provisions shall apply to all Class II wells.

(a) Notice of Commencement and Discontinuance

1. Immediately upon the commencement of injection operations in any well, the operator shall notify the Division of the date such operations began.

2. Within 30 days after permanent cessation of hydrocarbon storage operations or within 30 days after discontinuance of injection operations into any other well, the

operator shall notify the Department of the date of such discontinuance and the reasons therefor. No injection well may be temporarily abandoned for a period exceeding six months unless the owner/operator demonstrates to the satisfaction of the Department that there is a continuing need for such a well, that the well exhibits mechanical integrity, and that continued temporary abandonment will not endanger USDWs. Written permission is required.

(b) Abandonment of Injection Operations

1. Whenever there is a continuous two year period of non-injection into any Class II well, such project or well must be plugged and abandoned, and the authority for injection shall automatically terminate, unless the owner/operator demonstrates to the satisfaction of the Department that there is a continuing need for such a well, that the well exhibits mechanical integrity, and that continued temporary abandonment will not endanger USDWs. Written permission is required.

2. Before any injection well is plugged, the operator shall obtain approval for the well's plugging program from the Department.

3. For good cause shown, the Department may grant an administrative extension or extensions of injection authority as an exception to paragraph (1) above.

(c) Prior to granting approval for the plugging and abandonment of a Class II well the Department shall consider the following information:

1. The type, and number of plugs to be used;

2. The placement of each plug including elevaton top and bottom;

3. The type, grade, and quantity of cement to be used; and

4. The method of placement of the plugs.

5. The procedure used to meet the requirements of rule 1200-04-06-.04.

(8) Reporting Requirements

(a) Annual reporting to the Department summarizing the results of monitoring required under paragraph (6) of this section is required. Such summary shall include monthly records of injected fluid, and any major changes in characteristics or sources of injected fluid.

(b) Owners or operators of hydrocarbon storage and enhanced recovery projects may report on a field or project basis rather than an individual field basis where manifold monitoring is used.

(c) The Department may require a demonstration of mechanical integrity prior to approving transfer of authority to inject. Prior to approval to inject, the permittee must supply to the Department the following:

1. the anticipated maximum pressure and flow rate at which the well will operate;

2. the results of the formation testing program;

3. the actual injection procedure; and

4. for new wells, the status of corrective action on defective wells in the area of review.

(9) Removal of Produced Water from Leases and Field Facilities

(a) Produced water shall not be stored or disposed of in any unlined pit, pond, lake or depression or in any other place in a manner that will constitute a hazard to USDWs.

(b) Transportation of any produced water by motor vehicle from any lease, central tank battery, or other facility, without approval of the Department is prohibited.

(c) Authorization to transport produced water may be obtained by submitting a request to the Department.

(d) No owner or operator shall permit produced water to be removed from its leases or field facilities by motor vehicle except by a person possessing Department approval.

(10) Disposition of Transported Produced Water

(a) No person transporting produced water may dispose of such water on the surface of the ground, or in any pit, pond, lake, depression, draw, or in any watercourse, or in any other place or in any manner which will constitute a hazard to any USDW.

(b) Delivery of produced water to approved wastewater disposal facilities, enhanced recovery injection facilities, or to a drill site for use in drilling fluid will not be construed as constituting a hazard to USDWs provided the produced waters are placed in tanks or other impermeable storage at such facilities.

(c) The Department may grant temporary exceptions for emergency situations, for use of produced water in road construction or maintenance or for use of produced waters for other construction purposes upon request and a proper showing by a holder of a Department approval to move produced water.

(11) Existing Class II enhanced recovery wells and hydrocarbon storage wells.

Class II wells in current operation upon the effective date of this rule shall file an application within 6 months of the effective date of this rule. No application fee will be required. Failure to file an application by the required date shall make the wells in violation of Rule Chapter 1200-04-06 and subject to the new application fee or closure.

(a) An existing Class II enhanced recovery or hydrocarbon storage injection well is authorized by rule, if the owner or operator injects into the existing well within one year after the date which the State of Tennessee's UIC program is authorized under the Federal Safe Drinking Water Act and becomes effective. An owner or operator of a well which is authorized by rule pursuant to this paragraph shall re-work, operate, maintain, plug, abandon or inject into the well in compliance with applicable regulations.

(b) Duration of well authorization by rule. Well authorization under this paragraph expires upon the effective date of a permit issued after plugging and abandonment in accordance with an approved plugging and abandonment plan pursuant to these Rules and upon submission of a plugging and abandonment report.

(Rule 1200-04-06-.11, continued)

(c) Prohibitions on injection. An owner or operator of a well authorized by rule pursuant to this paragraph is prohibited from injecting into the well:

1. Upon the effective date of an applicable permit denial;

2. Upon failure to submit a permit application in a timely manner;

3. Upon failure to submit inventory information in a timely manner;

4. Upon failure to comply with a request for information in a timely manner;

5. Upon failure to provide alternative financial assurance;

6. Forty-eight hours after receipt of the determination by the Commissioner that the well lacks mechanical integrity, unless the Commissioner requires immediate cessation; or

7. Upon receipt of notification from the Commissioner that the transferee has not demonstrated financial responsibility.

(d) Requirements. The owner or operator of a well authorized under this paragraph shall comply with the applicable requirements of this Rule. Such owner or operator shall comply with the casing and cementing requirements no later than 1 year and other requirements no later than 1 year after authorization.

Authority: *T.C.A. §§4-5-201 et seq., 69-3-101 et seq., 69-3-105, and Public Chapter 417, Acts of 1991.* ***Administrative History:*** *Original rule filed August 9, 1985; effective September 8, 1985. Amendment filed April 11, 2001; effective June 25, 2001. Amendments filed February 17, 2010; effective May 18, 2010.*

1200-04-06-.12 CLASS III WELLS.

(1) Permit Application

(a) For Class III wells, the Department shall require an applicant to furnish a feasibility study demonstrating the applicability of the injection well method of mining.

(b) A permit must be obtained from the Department prior to the operation of any Class III well. Prior to granting approval for operation of a Class III well or project, the Department shall consider all relevant information developed during the construction phase as well as any information submitted in the permit application and supporting documents.

(c) Permit applications for Class III wells shall be submitted by the applicant using the appropriate permit application form promulgated by the Department and shall contain any attachments necessary to provide:

1. facility name and location;

2. name and address of legal contacts (agents of process);

3. ownership of facility, including address;

4. a map and a tabulation of data as required by rule 1200-04-06-.10(3)(b)1.

5. a description of the proposed injection system including type and construction of injection wells, nature of injected fluid and any proposed pretreatment;

6. a statement of estimated daily volume of fluid to be injected and maximum injection pressure;

7. an electric log of the well with the proposed injection zone marked, in the case of a well already drilled, or; in the case of undrilled wells a statement of the proposed zone to be mined and the approximate depth, top and bottom, of said zone;

8. a schematic diagram of the proposed Class III well showing the casing and cementing program together with an explanation thereof; and

9. a statement by the applicant that the proposed Class III well(s) will be completed in such a manner to insure that the injected substances are injected into the proposed injection zone and that provision has been made for adequate protection of USDWs and any other zones of commercial value.

(d) The Department may issue a permit on an area basis rather than for each Class III well individually provided that the injection wells are:

1. described and identified by location in permit application(s) if they are existing wells, except that the Department may accept a single description of wells with substantially the same characteristics;

2. within the same well field, facility site, reservoir, project, or similar unit in the same State;

3. operated by a single owner or operator; and

4. used to inject other than hazardous waste.

(e) Area permits shall specify:

1. the area within which underground injections are authorized; and

2. the requirements for construction, monitoring, reporting, operation, and abandonment, for all wells authorized by the permit.

(f) The area permit may authorize the permittee to construct and operate, convert, or plug and abandon wells within the permit area provided:

1. the permittee notifies the Department at such time as the permit requires;

2. the additional well satisfies the criteria in paragraph (d) of this section and meets the requirements specified in the permit under paragraph (e) of this section; and

3. the cumulative effects of drilling and operation of additional injection wells are considered by the Department during evaluation of the area permit application and are acceptable to the Department.

(g) If the Department determines that any well constructed under an area permit does not satisfy any of the requirements of this section, the Department may modify the permit,

terminate, or take enforcement action. If the Department determines that cumulative effects of additional wells are unacceptable, the permit may be modified or revoked.

(2) Well Construction Standards for Class III Wells

(a) General Design Considerations

1. All Class III wells shall be cased and cemented to prevent the movement of fluids into or between USDWs and to maintain the quality of aquifers above the injection zone that may be used for monitoring or other purposes.

2. In the design specification for Class III wells, the applicant shall address the problem of corrosion, proposed protective measure(s), and if appropriate, proposed methods of monitoring the extent of corrosion subject to Department approval. The applicant shall consider thickness and type of cement, number and thickness of casings, casing material, casing coatings, native fluid quality, injection fluid quality and life expectancy of the well.

3. Class III wells shall inject fluids through tubing with a packer set immediately above the injection zone, or tubing with an approved fluid seal as an alternative. The tubing, packer, and fluid seal shall be designed for the expected service.

(i) The use of other alternatives may be allowed with the written approval of the Department. To obtain approval, the applicant shall submit a written request to the Department, which shall set forth the proposed alternative and all technical data supporting its use. The Department will approve the request if the alternative method is deemed capable of providing a comparable level of protection to USDWs.

(ii) In determining and specifying requirements for tubing, packer, or alternatives the following factors shall be considered:

(I) depth of setting;

(II) characteristics of injection fluid (chemical content and corrosiveness);

(III) injection rate and pressure;

(IV) annular pressure;

(V) temperature, volume, viscosity and density of injected fluid; and

(VI) type and size of casing.

4. Department approval is required prior to any remedial procedures that alter the basic design specifications, materials, or character of the well.

(b) Casings

1. The casings used in the construction of each newly drilled Class III well shall be designed for the life expectancy of the well.

2. The number, thickness, type of materials, and length of casing shall be sufficient to protect the quality of USDW waters and the integrity of the well and the confining strata.

3. Exact setting depths for all castings shall be determined in the field, based on all available information, and subject to the Department's approval.

(c) Cementing

1. The cementitious material used in the construction of each newly drilled well shall be designed for the life expectancy of the well. In determining and specifying casing and cementing requirements, the following factors shall be considered by the applicant:

(i) depth to the injection zone;

(ii) depth to the bottom of all formations containing USDWs;

(iii) injection pressure, external pressure, internal pressure, and axial loading;

(iv) hole size;

(v) size and grade of all casing strings (wall thickness, diameter, nominal weight, length, joint specification and construction material);

(vi) corrosiveness of injected fluid, formation fluids, and temperatures;

(vii) lithology of injection and confining zones; and

(viii) type or grade of cementitious material.

2. Cementitious materials must be compatible with the injected fluid, native fluids, and the formations penetrated by the bore hole.

3. Use of additives used for mixing shall be determined by the applicant, provided the integrity, containment, corrosion protection, and structural strength of the cement are not significantly affected. Accurate records shall be kept and recorded of all additives used.

4. Placement of cementitious material shall be in such a manner that the purposes and characteristics of the cement are retained, and shall be subject to Department approval.

5. The applicant shall submit his cement testing program with the permit application for Department approval. The purpose of the cement testing program is to insure that the cement seal is adequate to prevent migration of fluids in channels, micro-annular spaces, or voids in the cement. The following methods of testing, as a minimum, shall be considered:

(i) pressure testing of casing - to not less than 1.5 times the expected injection pressure;

(ii) temperature log; and

(iii) cement bond log.

(d) Testing

1. Appropriate logs and other tests shall be made during the drilling and construction of new Class III wells. Upon completion of construction, the completed well system will be tested to assure that the well system will function as designed at the design operation pressures. A descriptive report interpreting the results of such logs and tests shall be prepared by a qualified log analyst and submitted to the Department. The logs and tests appropriate to each type of Class III well shall be determined based on the intended function, depth, construction and other characteristics of the well, availability of similar data in the area of the drilling site and the need for additional information that may arise from time to time as the construction of the well progresses. At a minimum, such logs and tests shall include deviation checks conducted on all holes where pilot holes and reaming are used, at sufficiently frequent intervals to assure that vertical avenues for fluid migration in the form of diverging holes are not created during drilling.

2. Where the injection zone is a water bearing formation, the following information concerning the injection zone shall be determined or calculated by the applicant for new Class III wells:

(i) hydrostatic pressure head;

(ii) fluid pressure;

(iii) fracture pressure;

(iv) other physical and chemical characteristics of the injection zone;

(v) physical and chemical characteristics of the native fluids; and

(vi) compatibility of injected fluids with formation fluids.

3. Where the injection formation is not a water bearing formation, the fracture pressure shall be determined or calculated.

(e) Environmental Concerns During Construction

1. The disposal of drilling fluids or cuttings and the disposal of wastes during testing shall be in a sound environmental manner that avoids violation of surface and ground water quality standards. The proposed disposal method must be approved by the Department prior to start of construction.

2. For Class III wells, the applicant is advised that other permits may be required for surface facilities associated with the mining activity.

(f) Operating Requirements

1. Total pressure shall not exceed the maximum allowable stress of the materials used to construct the well and shall not initiate new fractures or propagate existing fractures in the confining zone or in the injection zone or cause migration of fluids into USDWs.

2. Injection between the outermost casing protecting USDWs and the inner tubing is prohibited.

3. The Department shall be allowed access at reasonable time to the permittee's property and records for the purpose of inspections and the collection of samples for analyses from the process and wastewater streams associated with the permitted wells.

4. Other operational limitations shall be established as necessary on a case-by-case basis.

(g) Monitoring Requirements

1. Monitoring Well Design

(i) Monitor wells shall be located in such a fashion as to detect any excursion of injected fluids or process by-products outside the mining area or zone.

(ii) Where injection is into a formation which contains water with less than 10,000 mg/L Total Dissolved Solids, monitoring wells shall be completed into the injection zone and into the deepest aquifer above the injection zone and may also be required below the injection zone.

(iii) Where injection is into a formation which contains water with more than 10,000 mg/L Total Dissolved Solids, monitoring wells will be required above and may be required in the injection zone.

(iv) Where the injection wells penetrate USDWs in an area subject to subsidence or catastrophic collapse, an adequate number of monitoring wells shall be completed into USDWs to detect any movement of injected fluids, process by-products or native fluids into the USDWs. The monitoring wells shall be located outside the physical influence of the subsidence or catastrophic collapse.

(v) Class III wells may be monitored on a field or project basis rather than an individual well basis provided the owner or operator demonstrates to the satisfaction of the Department that the proposed monitoring system is comparable to individual well monitoring.

(vi) In determining the type, number, depth, and location of monitoring wells to be used and the parameters to be measured, the following criteria shall, as a minimum, be considered by the applicant:

(I) the local geology and hydrology;

(II) the population relying on USDWs within the area of review;

(III) the proximity of the injection operation to points of withdrawal of drinking water;

(IV) the operating pressures and attendant hydraulic gradients;

(V) the nature and volume of the injected fluid, the formation water and process by-products; and

(IV) the number, type, location, and depth of injection wells in the system, field or project.

(h) Monitoring Well Construction Requirements

Any monitoring well which penetrates the confining zone must be designed and constructed using the same standards that apply to the type of injection well to be monitored.

(i) Monitoring Criteria

1. The physical and chemical quality of the native fluid in the zones to be monitored shall be established prior to injection.

2. The injected fluid shall be analyzed with sufficient frequency to yield representative data on its physical and chemical characteristics. Parameters for such analysis shall be established on an individual basis.

3. The mechanical integrity of the injection well system shall be examined and evaluated at least once every three years. The methods and procedures to be used shall be subject to review by the Department.

4. Samples must be collected by a method insuring that the sample is representative of the fluid in the zone to be monitored. The method shall be subject to approval by the Department.

5. Continuous indicating and recording devices shall be installed and used to monitor the injection pressure and flow rate, and the volume of fluids injected and withdrawn.

6. Determination shall be made at least semi-monthly of the parameters chosen to measure water quality in the injection zone.

7. Determination shall be made at least semi-monthly of the fluid level or pressure head in each well used for monitoring.

8. The Department may require that the applicant continue to monitor in the area affected by mining for a period of time after mining operations cease. If the monitoring reveals violations, the permittee must investigate and take corrective action.

9. The Department may require a certificate that the applicant has assured, through a performance bond or other appropriate means, the resources necessary to cover post-closure monitoring and any corrective action resulting from this monitoring.

10. Wells specified in subpart 1200-04-06-.12(2)(g)1.(iv) shall be monitored once every three months.

(j) Reporting Requirements

The content and frequency of reports that will be required by the Department shall be specified in the permit for each Class III well or project. Minimum requirements are as follows:

(Rule 1200-04-06-.12, continued)

1. Construction Reports

   (i) The Department will require periodic data progress reports during the construction of Class III injection or monitor wells.

   (ii) Interpretation of data will be required in the progress reports at each milestone phase of construction.

   (iii) The applicant shall submit final reports of all data collected with interpretations to the Department. The final report shall include all information and data collected during construction with appropriate interpretations.

2. Operation Reports

   (i) An updated map of the area of review showing locations of all newly constructed or newly discovered wells not included in the technical report accompanying the permit application or in later reports shall be submitted annually to the Department.

   (ii) The applicant must submit, for Department approval, his proposed methodology for collection and reporting of operational data, to insure that data is collected, correlated, and reported in a fashion that would enable the agency to evaluate well performance.

   (iii) Except for routine monitoring required in (g) of this rule results of required monitoring shall be maintained on site and reported to the Department with the first quarterly report after the completion of the test.

   (iv) Results of mechanical integrity and any other periodic test required by the Department shall be reported upon request or as specified in the permit.

   (v) Monitoring may be reported on a project or field basis rather than on an individual well basis where field or project monitoring has been approved.

   (vi) Routine monitoring data required shall be reported quarterly to the Department. These reports must be postmarked no later than the tenth day of the month following the end of the quarter.

   (vii) In the event an excursion is verified in a designated monitor well, the permittee shall submit a written remedial action report at least every month to include for each well affected:

      (I) An explanation of required and other actions since the verifying analysis was taken. The explanation should include the date on which actions were initiated and completed;

      (II) A description of actions to be taken during the following report period;

      (III) Sample analysis results for control parameters;

      (IV) Permittee’s efforts to define the extent and probable cause of the presence of mining solutions in a designated monitor well; and

(Rule 1200-04-06-.12, continued)

(V) The first report shall include a groundwater analysis in the manner required by this Rule. All such reports shall be mailed to the Department, postmarked within two days of the end of each report period. The first report period shall begin with the day the presence of mining solution in a designated monitor well is verified. The permittee shall continue to make remedial action reports until clean-up is accomplished.

(k) Plugging and Abandonment Operation

1. Upon the occurrence of any of the conditions stated in rule 1200-04-06-.09(6)(a), the owner or operator of the well shall submit an application for a permit for plugging and abandonment of the well.

2. Before any injection well is plugged, the operator shall obtain approval for the wells plugging program from the Department.

3. The owner or operator of an abandoned injection well or facility must retain all pertinent records of construction, operation and abandonment for a period of not less than three years following the date of abandonment of the well or facility.

4. Within one-hundred twenty (120) days after acknowledgment of completion of mining activities or, if final restoration of the mine area aquifer is required, upon final completion of the final restoration, the permittee shall accomplish closure of the mining facilities in accordance with Plugging and Abandonment Standards.

(l) Abandonment Reports

1. Upon completion of plugging and abandonment of a well or wellfield, the permittee shall submit to the Department a Final Report which shall include, but will not be limited to, the following:

(i) daily construction reports;

(ii) certification of completion in accordance with approved plans and specifications by the engineer of record; and

(iii) evidence, such as a sealed copy or certification from the county clerk, that a surveyor's plot of the location of the abandoned wells has been recorded in the county courthouse property records.

2. Results of post-closure monitoring, if required by the abandonment permit, shall be reported quarterly to the Department.

Authority: *T.C.A. §§4-5-201 et seq., 69-3-101 et seq., 69-3-105, and Public Chapter 417, Acts of 1991.* ***Administrative History:*** *Original rule filed August 9, 1985; effective September 8, 1985. Amendment filed April 11, 2001; effective June 25, 2001.*

1200-04-06-.13 CLASS IV WELLS.

(1) The construction or operation of a well used for the disposal of any hazardous waste or radioactive waste into or above a USDW is prohibited.

(2) The operator or the owner of an existing Class IV well must, within six (6) months after the effective date of this rule, submit a Plugging and Abandonment Plan for the Department's

(Rule 1200-04-06-.13, continued)

approval. The owner or operator of an existing Class IV well shall complete plugging and abandonment in accordance with the approved Plugging and Abandonment Plan not later than six (6) months after the Department's approval of the plan.

(3) Wells used to inject contaminated ground water that has been treated and is being re-injected into the same formation from which it was drawn are not prohibited by this Rule if such injection is approved by EPA or the Department, pursuant to provisions for cleanup of releases under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), 42 U.S.C. 9601-9657, or pursuant to requirements and provisions under the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 6901 – 6987.

Authority: *T.C.A. §§4-5-201 et seq., 69-3-101 et seq., 69-3-105, and Public Chapter 417, Acts of 1991.* ***Administrative History:*** *Original rule filed August 9, 1985; effective September 8, 1985. Amendment filed April 11, 2001; effective June 25, 2001. Amendment filed February 17, 2010; effective May 18, 2010.*

1200-04-06-.14 CLASS V WELLS. This section sets forth Criteria and Standards to regulate all injection systems not regulated as Class I through IV.

(1) The following are prohibited:

(a) The use of any well to dispose of water carrying human waste, household or business waste, raw sewage or the effluent from any septic tank or other sewer system of any kind, unless such well is a subsurface fluid distribution system (SFDS) which is part of a Subsurface Sewage Disposal System (SSDS) permitted under the provisions of T.C.A. §§ 68-221-401 et seq. or a drip disposal system permitted pursuant to T.C.A. §§ 69-3-108 et seq.

(b) The use of any Class V injection well in such a manner as to cause any USDW to contain any substances, that are toxic, carcinogenic, mutagenic, or teratogenic, other than those of natural origin, at levels and conditions which violate primary drinking water standards as given in 1200-05-01 or adversely affect the health of persons.

(c) Large capacity cesspools; and

(d) Cesspools, other than large capacity cesspools, not authorized under T.C.A. 68-221-401 et seq.

(e) Motor Vehicle Waste Disposal Wells (MVWDWs) are prohibited and must be properly closed and abandoned.

(2) Construction and operation of a Class V well is authorized by virtue of this rule provided:

(a) the use of any Class V injection well does not present a hazard to any existing or future use of a USDW,

(b) The owner or operator shall within six (6) months after the promulgation of this rule supply a list of all wells owned or operated along with the following information for each well to include the following.

1. facility name and location, including a plot plan showing location of well(s);

2. name and address of legal contact;

3. ownership of facility;

4. nature and type of injection wells, including installed dimensions of wells and construction materials;

5. operating status of injection wells, including history of injection;

6. volume of injected fluid;

7. nature of injected fluid to include physical, chemical, biological or radiological characteristics; and

8. description of injection well, including monitoring well(s); and

9. other information as required by the Department.

(c) The plans for the construction of any new, or modification of any existing Class V injection well which have been approved by the Department.

(d) Injectate fluid from commercial or industrial processes shall not be co-mingled with any sanitary waste or septic system effluent in any subsurface fluid distribution system, unless it can be demonstrated to the Department's satisfaction that a beneficial reaction will occur between the waste streams which will enhance the degradation of either or both waste streams.

(e) The injection well will not adversely impact a wellhead protection area designated by Rule 1200-05-01-.34 promulgated under T.C.A. 68-13-701 et seq., the Tennessee Safe Drinking Water Act. Motor vehicle waste disposal wells are prohibited in wellhead protection areas. All other motor vehicle waste disposal wells must meet the effluent standards set forth in 1200-04-06-.05(1) at the point of injection.

(f) Prohibition of injection. An owner or operator of a well which is authorized by rule pursuant to this paragraph is prohibited from injecting into the well:

1. Upon the effective date of an applicable permit denial;

2. Upon failure to submit a permit application in a timely manner;

3. Upon failure to submit inventory information in a timely manner; or

4. Upon failure to comply with a request for information in a timely manner.

(3) The owner of a Class V well shall be responsible for notifying the Department of change in ownership.

(4) No authorization by permit or rule shall be allowed where a Class V well causes or allows a violation of the provisions of rule 1200-04-06-.14(1) or pollution of any ground or surface water.

(5) If at any time the Department learns that an existing Class V system may cause a violation of these regulations, the Department shall:

(a) require the injector to apply for an individual permit;

(b) order the injector to take such actions including, where required, closure of the injection well as may be necessary to prevent the violation; or

(Rule 1200-04-06-.14, continued)

(c) take enforcement action.

(6) Notwithstanding any other provision of this section, the Department may take emergency action upon receipt of information that a contaminant from a Class V injection system is likely to enter a public water system and present an imminent and substantial endangerment to the health of persons.

(7) Construction Standards for Class V Wells

(a) The variety of Class V well and their uses dictate a variety of construction designs consistent with those uses, and precludes specific construction standards. However, a well must be designed and constructed for its intended use, in accordance with good engineering practices, and the design and construction must be approved by the Department.

(b) Class V wells shall be constructed so that their intended use does not violate the water quality standards.

(8) Operating Requirements for Class V Wells

(a) All Class V injection wells shall be operated in such a manner that they do not violate the provisions of rule 1200-04-06-.14(1).

(b) Use of a pretreatment system may be necessary to insure that the water discharged meets the applicable water quality standards.

(c) Initial and/or periodic testing may be required for Class V injection wells.

(d) Upon completion of the well, the owner or operator must certify to the Department that the well has been completed in accordance with the approved construction plan, and must submit any other additional information required.

(e) After the effective date of this rule, the operator, if not the property owner, for all Class V injection wells shall have access to the “point of injection” for the Class V wells. This is to be maintained by easement or deed restrictions on all injection points.

(9) Monitoring Requirements for Class V Injection Systems

(a) The Department may require monitoring of Class V injection wells; the nature of which will be determined by the type of well, nature of the injected fluid, and water quality of the receiving aquifer.

(b) The Department shall determine the extent and frequency of monitoring based on the type of injection well and the nature of the injected fluid.

(10) Reporting Requirements for Class V Wells will be determined by the type of injection well and nature of injected fluid.

(a) All municipalities and other governmental entities with storm water injection wells under their control either by ownership or easement shall submit an annual report describing the location and status of each injection well and any other information the Department determines to be necessary. Such reports shall include a locational map.

(11) Plugging and Abandonment Standard

(Rule 1200-04-06-.14, continued)

(a) The Department will order that a Class V injection well be plugged and abandoned when the use of the system is determined to be a hazard to the ground water resource.

(b) Prior to abandoning a Class V injection well, the well shall be plugged with cement in a manner which will not allow movement of fluids between USDWs. The proposed plugging method and type of cement shall be approved by the Department. Placement of the cement plug shall be accomplished by any recognized method which is acceptable to the Department.

(c) The owner or operator shall notify the Department of his intention to abandon the system when a Class V injection well is no longer used or is usable for its intended purpose.

(d) The owner of any Class V injection well shall apply for a Plugging and Abandonment Permit when the well is no longer used or usable for its intended purpose or any other purpose approved by the Department. The application shall include justification for abandonment, the approved plugging and abandonment plan and any proposed modification to the original plugging plan as approved by the Department.

(e) Closure does not mean that the owner or operator will need to cease operations at the facility, only that the owner or operator will need to close the well. A number of alternatives are available for the disposal of waste fluids. Examples of alternatives that may be available to motor vehicle stations include: recycling and reusing wastewater as much as possible; collecting and recycling petroleum-based fluids, coolants, and battery acids drained from vehicles; washing parts in a self-contained, recirculating solvent sink, with spent solvents being recovered and replaced by the supplier; using absorbents to clean up minor leaks and spills, and placing the used materials in approved waste containers and disposing of them properly; using a wet vacuum or mop to pick up accumulated rain or snow melt, and, if allowed, connecting floor drains to a municipal sewer system or holding tank, and, if allowed, disposing of the holding tank contents through a publicly owned treatment works (“POTW”). The owner/operator should check with the POTW to see if the POTW would accept the wastes. Alternatives that may be available to owners and operators of a large-capacity cesspool include: conversion to a septic system; connection to sewer; and installation of an on-site treatment unit.

(12) Prohibition of fluid movement.

(a) Injection activity prohibitions

1. No injection activity can allow the movement of fluid containing any contaminant into USDWs, if the presence of that contaminant may cause a violation of any primary drinking water standard, or other health based standards, or may otherwise adversely affect the health of persons. This prohibition applies to well construction, operation, maintenance, conversion, plugging, closure or any other injection activity.

2. If the Department learns that an injection activity may endanger USDWs, the Department may require the closure of the well a permit or permit modification, or other appropriate action.

(b) Closure requirements. The owner/operator must close the well in a manner that complies with the above prohibition of fluid movement. Also, the owner/operator must dispose or otherwise manage any soil, gravel, sludge, liquids, or other materials

removed from or adjacent to the well in accordance with all applicable Federal, State and local regulations and requirements.

(13) Authorization by Rule Requirements

All Class V UIC well authorizations by rule shall comply with this rule and all conditions established by the Commissioner as necessary to fulfill the purposes of the Tennessee Water Quality Control Act, T.C.A. §§ 69-3-101 et seq., contain a description of the injection zone being authorized, and contain any necessary corrective action as stated under rule 1200-04-06-.09(5). The authorization conditions shall be set at levels to prevent adverse effects to persons utilizing the ground water resource after consideration of at least the following factors: any guidelines set for certain pollutants by U.S.E.P.A.; the flow characteristics of ground water risk to humans; and the risk of migration. The following conditions, subparagraphs (a) through (n), apply to all Class V UIC authorizations. All conditions applicable to all authorizations shall be incorporated into the authorizations either expressly or by reference. If incorporated by reference, a specific citation to these regulations must be given in the authorizations.

(a) An applicant must comply with all conditions of this authorization and all applicable laws and regulations. Any authorization noncompliance constitutes a violation of the Tennessee Water Quality Control Act and is grounds for enforcement action; for authorization termination, revocation and reissuance, or modification; or for denial of an authorization renewal application.

(b) If the applicant wishes to continue an activity regulated by this authorization after the expiration date of this authorization, the applicant must apply for and obtain a new authorization prior to expiration of this authorization.

(c) It shall not be a defense for an owner or operator in an enforcement action that it would have been necessary to halt or reduce the authorized activity in order to maintain compliance with the conditions of this rule.

(d) The owner or operator shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from non-compliance with this rule.

(e) The owner or operator shall at all times properly operate and maintain all facilities and systems of related appurtenances~~)~~ which are installed or used by the applicant to achieve compliance with the conditions of this rule and authorization. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this rule.

(f) The authorization may be modified, revoked and reissued, or terminated for cause. The filing of a request by the owner or operator for a modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any authorization condition.

(g) This rule and the authorizations issued under it do not convey any property rights of any sort, or any exclusive privilege.

(h) The owner or operator shall furnish to the Department, within a time specified, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the authorization, or to determine

compliance with this rule. The applicant shall also furnish to the Department, upon request, copies of records required to be kept by this rule or the authorization.

(i) The owner or operator shall allow Department personnel, or an authorized representative of the Department, upon the presentation of credentials to:

1. Enter upon the owner or operator's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this rule or the authorization;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this rule or the authorization;

3. Inspect at reasonable times any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this rule or the authorization; and

4. Sample or monitor at reasonable times, for the purposes or assuring compliance or as otherwise authorized by the Tennessee Water Quality Control Act or these rules, any substances or parameters at any location.

(j) Monitoring and records.

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The owner or operator shall monitor injection fluids, injection operations, and local ground water supplies, in accordance with the requirements for the applicable class of well stated in this rule.

2. The owner or operator shall retain records of all monitoring information, including the following:

(i) Calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this authorization, and records of all data used to complete the application for the authorization under this rule, for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the Department at any time; and

(ii) The nature and composition of all injected fluids until three years after the completion of any plugging and abandonment procedures. The Department may require the owner or operator to deliver the records to the Department at the conclusion of the retention period.

3. Records of monitoring information shall include:

(i) The date, exact place, and time of sampling or measurements;

(ii) The individual(s) who performed the sampling or measurements;

(iii) The date(s) analyses were performed;

(iv) The individual(s) who performed the analyses;

(v) The analytical techniques or methods used; and

(vi) The results of such analyses.

(k) All applications, reports, or information submitted to the Department shall be signed and certified.

(l) Reporting requirements.

1. Planned Changes. The owner or operator shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility.

2. Anticipated noncompliance. The owner or operator shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with authorization requirements.

3. Transfers. See paragraphs (6), (7), (8) and (9) of Rule 1200-04-06-.08.

4. Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this rule or the authorization.

5. Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 30 days following each schedule date.

6. Twenty-four hour reporting. The owner or operator shall report any noncompliance which may endanger health or the environment, including:

(i) Any monitoring or other information which indicates that any contaminant may cause an endangerment to USDWs; or

(ii) Any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between USDWs.

Any such information shall be provided orally within 24 hours from the time the owner or operator becomes aware of the circumstances. A written submission shall also be provided within 72 hours of the time the owner or operator becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause, the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate and prevent reoccurrence of the noncompliance.

7. Other noncompliance. The owner or operator shall report all instances of noncompliance not reported under parts 1, 4, 5, and 6 of this subparagraph, at the time monitoring reports are submitted. The reports shall contain the information listed in part 6 of this subparagraph.

8. Other information. Where the owner or operator becomes aware that the owner or operator has failed to submit any relevant acts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, the owner or operator shall promptly submit such facts or information.

(Rule 1200-04-06-.14, continued)

(m) Requirements prior to commencing injection. Except for all new wells authorized by an area permit under rules 1200-04-06-.11 and 1200-04-06-.12, a new injection well may not commence injection until construction is complete, and

1. The owner or operator has submitted notice of completion of construction to the Director; and

2. (i) The Department has inspected or otherwise reviewed the new injection well and finds it is in compliance with the conditions of this rule and the authorization; or

(ii) The owner or operator has not received notice from the Director of his or her intent to inspect or otherwise review the new injection well within 13 days of the date of the notice in part 1 of this subparagraph, in which case prior inspection or review is waived and the owner or operator may commence injection. The Director shall include in his notice a reasonable time period in which he shall inspect the well.

(n) The owner or operator shall notify the Department at such times as this rule or the authorization requires before conversion or abandonment of the well, or in the case of area permits, before closure of the project.

(o) A Class V authorization may include, conditions to insure that plugging and abandonment of the well will not allow the movement of fluids into or between USDWs. Where the Department's review of an application indicates that the applicant's plan is inadequate, the Department may require the applicant to revise the plan, prescribe conditions meeting the requirements of this paragraph, or deny the authorization.

Authority: *T.C.A. §§4-5-201 et seq., 69-3-101 et seq., 69-3-105, and Public Chapter 417, Acts of 1991.* ***Administrative History:*** *Original rule filed August 9, 1985; effective September 8, 1985. Amendment filed April 11, 2001; effective June 25, 2001. Amendments filed February 17, 2010; effective May 18, 2010.*

1200-04-06-.15 FEES FOR CLASS I INJECTION WELLS.

(1) Permit Application Fees. Applications for permits to construct, operate or abandon a Class I injection well shall be accompanied by the following fees:

(a)	Construction Permit (New wells)	$2,500.00
(b)	Operating Permit (Initial)	$2,500.00
(c)	Abandonment Permit	$2,500.00
(d)	Operating Permit (Renewal)	$2,500.00

(2) Operational Fees. Owners or operators of Class I injection wells shall pay the following fees to the Department.

(a)	Waste fluid injection fee	$0.50 per 1,000 gallons
(b)	Annual permit maintenance fee	$7,500.00 per well
(c)	Permit modification and reissuance fee	$7,500.00 per well

(Rule 1200-04-06-.15, continued)

(d) Waste fluid injection fees must be paid after the effective date of the regulations regardless of the status of the permit.

(3) All fees are due and payable as follows:

(a) Application fees must be received with applications.

(b) Operational fees

1. Fees for waste injection must be paid quarterly and are due at the time of submission of the quarterly monitoring reports as specified in the operating permit.

2. Annual permit maintenance fees are due on the date these rules become effective or on the date the permittee commences injection, whichever is later, and on each successive anniversary unless the permit expires or is revoked.

3. Permit modification and reissuance fees are due at the time of submission of the request by the permittee or thirty (30) days after notice of the need for modification has been sent to the permittee by the Department.

(4) If any part of any fee imposed under this paragraph is not paid within fifteen days of the due date, a penalty of five percent (5 %) of the amount due shall at once accrue and be added thereto. Thereafter, on the first day of each month during which any part of any fee or any prior accrued penalty remains unpaid, an additional penalty of five percent (5%) of the unpaid balance shall accrue and be added thereto. In addition, the fees not paid within fifteen (15) days after the due date shall bear interest at the maximum lawful rate from the due date to the date paid.

(5) The owner or operator of a Class I well who is required to pay fees set forth under this paragraph and who disagrees with the calculation or applicability of the fee may petition the Water Quality Control Board for a hearing. In order to perfect the hearing, a petition for a hearing together with the total amount of fee due must be received by the Department not later than fifteen (15) days after the due date. If it is finally determined that the amount in dispute was improperly assessed, the Department shall return the amount determined to be improperly assessed with interest.

(6) The Department shall review permit applications for a Class I well to determine if the application contains all of the information required by the Department.

(a) If the application is deficient the Department will specify the deficiency(ies) in writing and inform the applicant by certified mail within ninety (90) days after the effective date of this rule or the date of receipt of the application whichever is later.

(b) If the application is complete the Department will notify the applicant by certified mail and initiate the permit evaluation process within ninety (90) days after the effective date of this rule or the date of receipt of the application whichever is later.

(c) If the application review is not completed within 90 days in accordance with 1200-04-06-.15(6)(a) & (b), the application fee shall be returned.

(7) After notification that an application is complete, the Department shall complete its evaluation of an application for a Class I well as follows:

(a) Construction permit 180 days

(b) Operating permit

1. Existing well 180 days

2. New well 90 days

(c) Renewal permit 90 days

(d) Abandonment permits 90 days

(8) Upon completion of the review, the Department will either deny the application or issue a draft permit for processing in accordance with rule 1200-04-06-.08(7). To achieve a final permit decision, an additional ninety (90) days will be required.

(9) The time periods provided in paragraphs (6), (7), and (8) shall be stayed if:

(a) A legal action concerning the permit is pending before any board, court or independent agency.

(b) The applicant requests that review be suspended.

(c) The Department issues a written notice of deficiency and until the applicant addresses said deficiency to the satisfaction of the Department.

Authority: *T.C.A. §§4-5-201 et seq., 69-3-101 et seq., 69-3-105, and Public Chapter 417, Acts of 1991.* ***Administrative History:*** *Original rule filed August 9, 1991; effective September 23, 1991. Amendment filed April 11, 2001; effective June 25, 2001.*

1200-04-06-.16 FEES FOR CLASS II INJECTION WELLS.

(1) Permit Application Fees. Applications for permits to operate a Class II injection well shall be accompanied by the following fees:

Application review fee..... $2,500.00
Permit renewal fee (every 5 years) $1,000.00

(2) Operational Fees. Owners or operators of Class II injection wells shall pay the following fees to the Department:

Annual maintenance fee.....$500.00
Permit modification and reissuance fee..... $250.00

(3) Annual permit maintenance fees are due on the date these rules become effective or on the date the permittee commences injection, whichever is later, and on each successive anniversary unless the permit expires or is revoked.

(4) Permit modification and reissuance fees are due at the time of submission of the request by the permittee or thirty (30) days after notice of the need for modification has been sent to the permittee by the Department.

(5) If any part of any fee imposed under this section is not paid within fifteen days of the due date, a penalty of five percent (5 *%)* of the amount due shall at once accrue and be added thereto. Thereafter, on the first day of each month during which any part of any fee or any prior accrued penalty remains unpaid, an additional penalty of five percent (5%) of the unpaid balance shall accrue and be added thereto. In addition, the fees not paid within fifteen (15)

(Rule 1200-04-06-.16, continued)

days after the due date shall bear interest at the maximum lawful rate from the due date to the date paid.

(6) The Department shall review permit applications for a Class II well to determine if the application contains all of the information required by the Department.

(a) If the application is deficient the Department will specify the deficiency(ies) in writing and inform the applicant by certified mail within sixty (60) days after the date of receipt of the application.

(b) If the application is complete the Department will notify the applicant by certified mail and initiate the permit evaluation process within sixty days (60) days after the date of receipt of the application.

(c) The time periods provided in paragraphs shall be stayed if:

1. A legal action concerning the permit is pending before any board, court or independent agency.

2. The applicant requests that review be suspended.

3. The Department issues a written notice of deficiency and until the applicant addresses said deficiency to the satisfaction of the Department.

(d) If the application review is not completed within 60 days in accordance with 1200-04-06-.16(6)(a) & (b), the application fee shall be returned.

Authority: *T.C.A. §§4-5-201 et seq., 69-3-101 et seq., 69-3-105, and Public Chapter 417, Acts of 1991.* ***Administrative History:*** *Original rule filed April 11, 2001; effective June 25, 2001. Amendments filed February 17, 2010; effective May 18, 2010.*

1200-04-06-.17 FEES FOR CLASS III INJECTION WELLS.

(1) Permit Application Fees. Applications for permits to operate a Class III injection well shall be accompanied by the following fees:

Application review fee	$2,500.00
Permit renewal fee (every 5 years)	$1,500.00

(2) Operational Fees. Owners or operators of Class III injection wells shall pay the following fees to the Department:

Annual maintenance fee	$1000.00
Permit modification and reissuance fee	$250.00

(3) Annual permit maintenance fees are due on the date these rules become effective or on the date the permittee commences injection, whichever is later, and on each successive anniversary unless the permit expires or is revoked.

(4) Permit modification and reissuance fees are due at the time of submission of the request by the permittee or thirty (30) days after notice of the need for modification has been sent to the permittee by the Department.

(5) If any part of any fee imposed under this section is not paid within fifteen days of the due date, a penalty of five percent (5 *%)* of the amount due shall at once accrue and be added thereto. Thereafter, on the first day of each month during which any part of any fee or any

prior accrued penalty remains unpaid, an additional penalty of five percent (5%) of the unpaid balance shall accrue and be added thereto. In addition, the fees not paid within fifteen (15) days after the due date shall bear interest at the maximum lawful rate from the due date to the date paid.

(6) The Department shall review permit applications for a Class III well to determine if the application contains all of the information required by the Department.

(a) If the application is deficient the Department will specify the deficiency(ies) in writing and inform the applicant by certified mail within ninety (90) days after the date of receipt of the application.

(b) If the application is complete the Department will notify the applicant by certified mail and initiate the permit evaluation process within ninety days (90) days after the date of receipt of the application.

(c) The time periods provided in paragraphs shall be stayed if:

1. A legal action concerning the permit is pending before any board, court or independent agency.

2. The applicant requests that review be suspended.

3. The Department issues a written notice of deficiency and until the applicant addresses said deficiency to the satisfaction of the Department.

(d) If the application review is not completed within 60 days in accordance with 1200-04-06-.17(6)(a) & (b), the application fee shall be returned.

Authority: *T.C.A. §§4-5-201 et seq., 69-3-101 et seq., 69-3-105, and Public Chapter 417, Acts of 1991.*
Administrative History: *Original rule filed April 11, 2001; effective June 25, 2001.*

1200-04-06-.18 FEES FOR CLASS V INJECTION WELLS.

(1) Application Fees. Applications for authorizations or permits for the following Class V injection wells shall be accompanied by the following one-time application review fees:

(a)	Innovative technology wells	$1,000.00 (per project)
(b)	Storm water drainage wells.	
	Subdivision	$500.00 (per project)
	Commercial/industrial facilities	$750.00 (per project)
(c)	Commercial/industrial geothermal wells	
	Open loop systems	
	$750.00 (per facility)	
(d)	Commercial/industrial SFDS and infiltration cells	$500.00 (per facility)
(e)	Large capacity septic systems	$250.00 (per facility)
	Churches	$100.00 (per facility)
(f)	Remediation wells	
	Oversight under this rule	$1,000.00 (per project)
	Oversight by the Department not under this rule	None

(g) Change of ownership $75

(h) Modification of recharge point $350 (per project)

(2) Renewal Fee. The following Class V wells shall submit the following fees with the renewal application:

(a) Storm water drainage wells
Commercial/industrial facilities: $350.00 (per facility)

(b) Commercial/industrial geothermal wells
Open loop $350.00 (per facility)

(c) Commercial/industrial SFDS and infiltration cells: $250.00 (per facility)

(d) Large capacity septic systems $250.00 (per facility)
Churches $50.00 (per facility)

(3) If the application is deficient the Department will specify the deficiency(ies) in writing and inform the applicant within sixty (60) days after the date of receipt of the application.

(4) If the application is complete the Department will notify the applicant and initiate the permit evaluation process within sixty (60) days after the date of receipt of the application.

(a) The time periods provided in paragraphs (4) and (5) shall be stayed if:

1. A legal action concerning the permit is pending before any board, court or independent agency.

2. The applicant requests that review be suspended.

3. The Department issues a written notice of deficiency and until the applicant addresses said deficiency to the satisfaction of the Department.

(b) If the application review is not completed within 60 days in accordance with 1200-04-06-.18(3)&(4), the application fee shall be returned.

Authority: *T.C.A. §§4-5-201 et seq., 69-3-101 et seq., 69-3-105, and Public Chapter 417, Acts of 1991.* ***Administrative History:*** *Original rule filed April 11, 2001; effective June 25, 2001. Amendment filed March 28, 2002; effective June 11, 2002. Amendment filed February 17, 2010; effective May 18, 2010.*

1200-04-06-.19 BONDS REQUIRED FOR PERMITTED WELLS

(1) A surety bond or cash bond is required from the owner or operator of an injection well for Class I, II and III wells adequate to allow proper plugging and abandonment of the well(s) and may be required for Class V wells at the Department's discretion. Such bonds are penal in nature. Such surety bond or cash bond is required to be in force for a well from the time a permit has been granted until the well has been properly abandoned. Bonds shall be in favor of the Department, conditioned that the well shall meet all the requirements of this rule chapter and be plugged and abandoned in accordance with this rule chapter. An individual well bond shall be released upon the proper plugging of the well and the filing of a plugging and abandonment report, driller's log, downhole surveys, and other data as required.

(2) At any time other than after the issuance of a notice of noncompliance or forfeiture, the surety may notify the Director of the Division of Water Supply in writing of its desire to terminate its

liability under the bond by giving written notice to the Director. The Director shall thereupon require the principal in the bond to file a new bond, or to effect a change of owners on the well within sixty (60) days. If the principal can no longer be contacted, then any interested party may seek to change ownership on the well. If a new bond is filed by the principal, or a change in ownership is approved by the Director, liability under the original bond shall cease and terminate as to acts and operations occurring after the effective date of the new bond or approval of change in ownership and the original bond shall be released upon written request from the surety. If a new bond is not filed within sixty (60) days, or a change in ownership has not been approved, the Director shall revoke the permit secured by the bond and require the principal to plug and abandon the well in accordance with the Underground Injection Control rules. In the event of the failure of the principal to plug the well, the surety may either cause the well to be plugged, or forfeit the amount of the bond to the Department. This action will be initiated by the issuance of a notice of noncompliance. The surety will then have thirty (30) days in which to plug the well. If the well has not been plugged within that time limit, then a notice of forfeiture will be issued. The surety will then have twenty-one (21) days within which to petition the Tennessee Water Quality Control Board for a hearing relative to the bond forfeiture, pursuant to the Administrative Procedures Act, T.C.A. 4-5-101 et. seq. If a hearing is requested, no further action will be taken against the bond until such hearing has taken place and a final order given by the Board. If the well has been plugged in the interim, then notice of forfeiture will be cancelled and the bond released.

(3) Any of the following shall serve as bonds:

(a) A surety bond executed by the well operator as principal and by a corporate surety authorized to do business in Tennessee; or

(b) cash; or

(c) a certified check; or

(d) a certificate of Deposit, if made out exactly as follows: “Owner Name and Tennessee Department of Environment and Conservation or Tennessee Department of Environment and Conservation”; and does not contain any terms or conditions that provide that the issuing bank may charge against the deposit any debt of the depositor(s) owing to it (set-off terms); or any terms or conditions that provide anyone whose signature appears on the signature card to withdraw from funds the account. The owner shall be entitled to any interest earned on a certificate of deposit as the same becomes due and payable. The treasurer of the State of Tennessee shall receive and hold originals of such certificates in the name of the State of Tennessee, in trust, for the purpose for which such deposit is made, and shall at all times be responsible for the custody and safekeeping of such deposits; provided, however, that the certificate may be returned to the issuing financial institution as may be necessary for renewal from time to time; or

(4) Forfeiture

(a) The Director shall cause a notice of noncompliance to be served upon the owner/operator and surety if the requirements for proper plugging and abandonment of a well or wells have not been complied with within the time limits set forth by this rule. Compliance for proper plugging and abandonment shall include the submission of all required records and data.

(b) The notice shall specify in what respects the owner has failed to comply with this rule or orders of the Water Quality Control Board.

(Rule 1200-04-06-.19, continued)

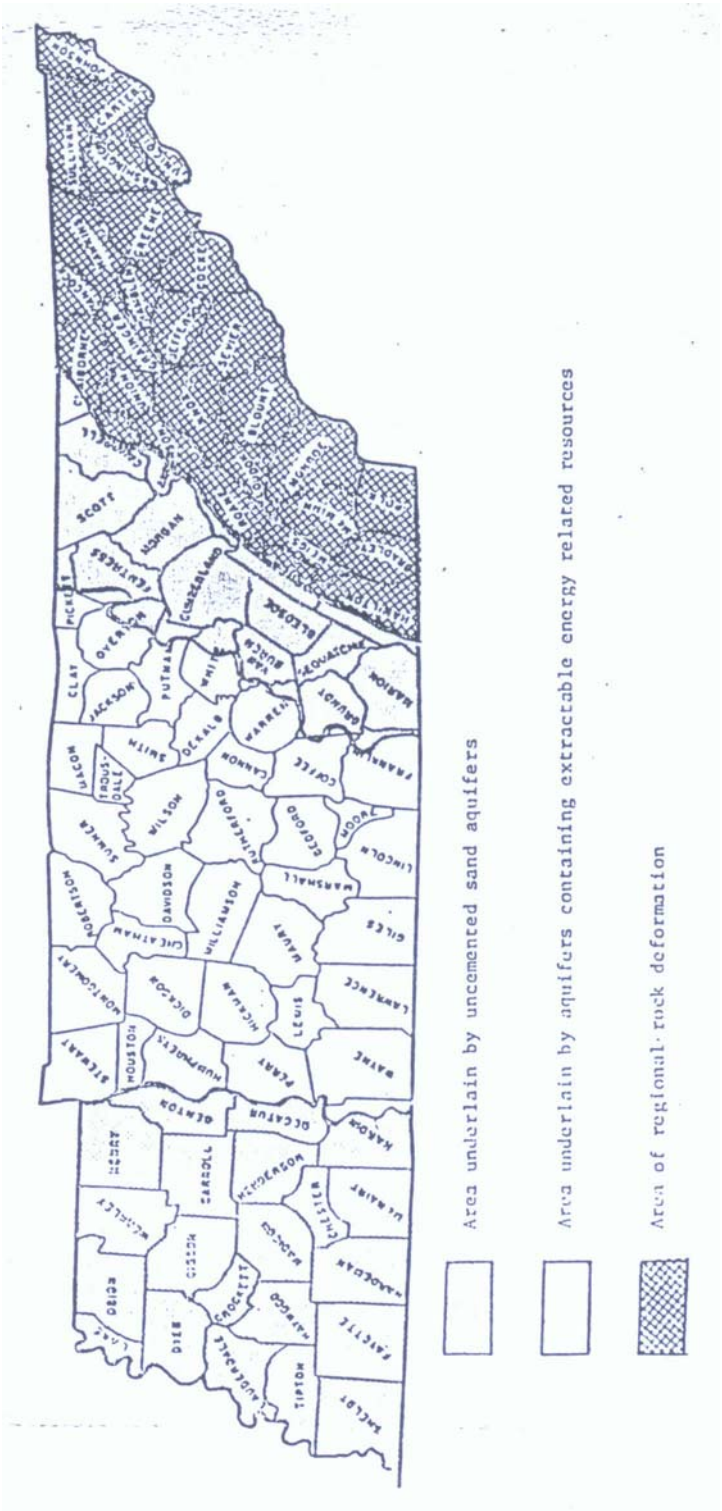
(c) If the owner has not reached an agreement with the Director, or has not complied with the requirements set forth within thirty (30) days after the mailing of the notice, the bond shall then be forfeited to the Department, and the money used to properly plug the well(s). Such bonds are penal in nature, and the full amount of the bond shall be forfeited.

(5) Notice of Noncompliance

(a) At any time the Director causes a notice of noncompliance to be served upon the principal, the surety shall be afforded the opportunity to act in behalf of the principal within the time set forth in regard to proper plugging of the well or wells and submission of required well records, downhole data and plugging reports. Should the principal and surety fail to comply within the time provided, then and only in that event, the bond shall be forfeited and used to plug the well. When a bond is forfeited under this rule, the Director shall give notice to the Attorney General, who shall institute proceedings to collect the forfeiture.

Authority: *T.C.A. §§4-5-201 et seq., 69-3-101 et seq., 69-3-105, and Public Chapter 417, Acts of 1991.*
Administrative History: *Original rule filed April 11, 2001; effective June 25, 2001.*

APPENDIX A



Authority: *T.C.A. §69-3-105.* ***Administrative History:*** *Original rule filed August 9, 1985; effective September 8, 1985.*

RULES
OF
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
WATER QUALITY CONTROL BOARD
DIVISION OF WATER POLLUTION CONTROL

CHAPTER 1200-04-07
AQUATIC RESOURCE ALTERATION

TABLE OF CONTENTS

1200-04-07-.01 GENERAL

(1) These rules are promulgated in order to prevent the future pollution of state waters and to plan for the future use of such waters so that the water resources of Tennessee might be used and enjoyed to the fullest extent consistent with the maintenance of unpolluted waters, T.C.A. §69-3-102(b). Persons who wish to conduct an activity that may impact a water of the state shall consider avoidance and minimization of such impacts. If impacts to the waters will occur, mitigation as set forth in part (7) of these rules must be proposed to offset any lost resource value.

(2) The Federal Water Pollution Control Act or Clean Water Act, §401 (33 U.S.C. §1341), provides that an applicant for a federal license or permit for a discharge into the waters of the United States must provide the federal licensing or permitting agency a certification from the State in which the discharge originates or will originate, and that any such discharge will comply with the applicable provisions of §§301, 302, 303, 306 and 307 of that Act.

(3) Additionally, the Tennessee Water Quality Control Act of 1977, T.C.A. §69-3-108(b)(1), provides that it is unlawful for any person, except in accordance with the conditions of a valid permit, to carry out any activity which may result in the alteration of the physical, chemical, radiological, biological, or bacteriological properties of any waters of the State, including wetlands. These activities include, but are not limited to: the discharge of dredge or fill material, dredging, stream channel modifications, water withdrawals, wetlands alterations including drainage, and other construction activities which result in the alteration of the waters of the State. State permits for these activities are either §401 Water Quality Certifications or Aquatic Resource Alteration Permits.

(4) This regulation prescribes procedures peculiar to these permits, in addition to the general requirements and procedures of Chapter 1200-04-01 of the Rules of the Water Quality Control Board and the Department of Environment and Conservation, and the Tennessee Water Quality Control Act of 1977. This regulation only applies to activities which do not require a National Pollutant Discharge Elimination System (NPDES) permit or which do not result from the operation of a treatment system.

***Authority**: T.C.A. §69-3-105(b) and 69-3-108.* ***Administrative History**: Original rule filed February 26, 1987; effective April 12, 1987. Amendment filed October 8, 1991; effective November 22, 1991. Amendment filed August 25, 2000; effective November 8, 2000.*

1200-04-07-.02 EXEMPTIONS

(1) Management activities such as timber harvesting and beaver control which do not alter or adversely affect the classified uses of waters of the state are not subject to these requirements.

(2) Agriculture and forestry activities and activities necessary to the conduct thereof and lands devoted to the production of agricultural or forestry products are exempt from the requirements of the Act and these rules, unless there is a point source discharge, as provided in T.C.A. §69-3-120(g). Thus, normal farming, forestry and livestock management activities such as plowing, seeding, cultivating, minor drainage, water withdrawal for irrigation, and harvesting for the production of food, fiber, and forest products are exempt if they are part of an established (i.e., on-going) farming, forestry, or livestock management operation, unless there is a point source discharge.

(3) The Department of Agriculture provides guidance for development of best management practices (BMP's) for agriculture and forestry. One of the primary goals of these BMP's is the prevention of soil erosion and discharge of silt and sedimentation to streams. These BMP's should be followed. If silvicultural activities fail to use BMP's and a point source discharge results in water pollution, the Commissioner is authorized to issue a stop work order under P.Ch. 680 of the Acts of 2000.

(4) Existing water withdrawals on July 25, 2000 which do not adversely alter or effect the classified use of the source stream are not subject to these requirements.

Authority: *T.C.A. §69-3-105(b) and §69-3-108.* ***Administrative History:*** *Original rule filed February 26, 1987; effective April 12, 1987. Amendment filed October 8, 1991; effective November 22, 1991. Amendment filed August 25, 2000; effective November 8, 2000.*

1200-04-07-.03 DEFINITIONS

As used in this rule chapter and in any ARAP permit issued, including General Permits, the following terms have these meanings:

(1) "Act" means The Tennessee Water Quality Control Act of 1977, as amended, T.C.A. §69-3-101 et seq.

(2) "Activity" means any and all work or acts associated with the performance, or carrying out of a project or a plan, or construction of a structure.

(3) "Adjacent" means bordering, contiguous, or neighboring. Wetlands separated from other waters of the State by man-made dikes or barriers, natural river berms and the like are "adjacent wetlands".

(4) "Aquatic Resource Alteration Permit" means a permit pursuant to §69-3-108 of the Tennessee Water Quality Control Act of 1977, which authorizes the alteration of properties of waters of the State which result from activities other than discharges of wastewater through a pipe, ditch or other conveyance. Such a permit shall impose conditions, including standards and terms of periodic review, as are necessary to accomplish the purposes of the Act.

(5) "Background Conditions" means the biological (plant and animal species), chemical and physical conditions of the wetland or water body prior to the proposed activity. If the water body is disturbed, it may be necessary to use the biological, chemical and physical conditions of a similar water body as a reference condition.

(Rule 1200-04-07-.03, continued)

(6) "Best Management Practices" means a schedule of activities, prohibition of practices, maintenance procedures and other management practices to prevent or reduce the pollution of waters of the State. BMP's include methods, measures, practices, and design and performance standards.

(7) "Certification" means an Aquatic Resource Alteration Permit under the Tennessee Water Quality Control Act of 1977, as required by §401 of the Federal Water Pollution Control Act, which certifies, either unconditionally or through imposition of terms under which the activity must be carried out, that the activity will comply with applicable provisions of §§301, 302, 303, 306, and 307 of the Federal Water Pollution Control Act and Chapter 1200-4-1 of the Rules of the Water Quality Control Board and the Department of Environment and Conservation and the Act.

(8) “Channelization” means the alteration of stream channels including but not limited to straightening, widening, or enlarging.

(9) “Cofferdam” means an enclosure from which water can be pumped to expose the bottom of a body of water or a barrier constructed to divert the flow of water to allow construction work.

(10) “Commence Construction” means the physical initiation of on-site structural or earthmoving work.

(11) “Constructed Wetland” means intentionally designed, built and operated on previously nonwetland sites for the primary purpose of wastewater treatment or stormwater retention; such wetlands are not created to provide mitigation for adverse impacts or other wetlands.

(12) “Clearing and Grubbing” means the removal of vegetation by cutting and digging up roots and stumps.

(13) "Cumulative Impacts" means the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. A cumulative impact to a wetland can be the loss of the variety of the natural wetland types, wetland acreage, functions and classified uses.

(14) “Debris” means woody materials, trash, flotsam, dislodged vegetation, and other potentially mobile materials which may, when located within a stream channel, contribute to flow blockage. This does not include gravel, sand, soil or its constituents such as silt, clay or other sediments.

(15) “Ditch” means a man-made excavation for the purpose of conveying water. Ditches do not include streams, modified streams or canals.

(16) "Dredging" (sand and gravel dredging) means the removal of sand, gravel and similar sediments or deposits from a stream, river, or lake bed or wetland by any method.

(17) “Earthmoving” means any construction or other activity, which disturbs the surface of the land including, but not limited to, excavation, embankment, fill, and cut of soil, rock, or earth.

(18) "Emergency" means a situation where life or substantive improvements to real property is in immediate danger.

(19) “Erosion” means the process by which the land surface is worn away by the action of water, wind, gravity, chemicals, or a combination thereof.

(Rule 1200-04-07-.03, continued)

(20) “Excavation” (a) means a cavity formed by digging, quarrying, uncovering, displacing, or relocating soil or rock; or, (b) means to dig or remove soil, rocks, or other materials resulting in a change in all or part of the elevation of a site.

(21) "General Permit" means a permit issued under the Act and this Rule authorizing an alteration to state waters within the state for a specified category of activities that are substantially similar in nature.

(22) “Ground water” means water beneath the surface of the ground within the zone of saturation, whether or not flowing through known and definite channels.

(23) “Ground water table” means the upper surface of the zone of saturation by ground water.

(24) “Hydrogeomorphic System” means a classification system for wetlands based on geomorphic setting, water source, and hydrodynamics; used to identify and group functionally similar wetlands.

(25) "Individual Permit” means a permit issued by the Division of Water Pollution Control to a specified person to conduct specified activities at a specified location. This type of permit does not authorize an activity by a class of persons or the public in general.

(26) “Interflow” means the runoff infiltrating into the surface soil and moving toward streams as shallow, perched water above the main ground water level.

(27) “In the Dry” means in such a manner that no equipment or dredged material is in contact with the stream or wetland and that the soil water boundary is not disturbed by equipment or that no infiltration is pumped to the stream from the dredge site.

(28) “Minimal Impacts” means an activity for which the scope is very limited in area, the impact is very short in duration, and has no impact to waters just downstream of the location of the activity. Examples of activities with 'minimal impacts' include, but are not limited to, (1) minor channel changes associated with bank stabilization; and (2) an activity typically authorized by General Permit, but which requires an Individual Permit because the project falls under one of the listed exclusions.

(29) “Minor Road Crossing” is a bridged or culverted roadway fill across a stream or river which results in the alteration of 200 linear feet or less of stream bed or shoreline.

(30) "Mitigation" means compensating for impacts in regulated areas as provided by Rule 1200-04-07-.04(7).

(31) “Multiple populations” means two or more individuals from each of two or more distinct taxa, in the context of obligate lotic aquatic organisms.

(32) Normal weather conditions – Those within one standard deviation of the cumulative monthly precipitation means for at least the three months prior to the hydrologic determination investigation, based on a 30-year average computed at the end of each decade. Precipitation date shall come from National Oceanographic and Atmospheric Agency’s National Climatic Data Center, National Resources Conservation Service’s National Climatic Data Center, Natural Resources Conservation Service’s National Water and Climate Center, or other well-established weather station.

(33) “Obligate lotic aquatic organisms” means organisms that require flowing water for all or almost all of the aquatic phase of their life cycles.

(Rule 1200-04-07-.03, continued)

(34) “Perched water” means water that accumulates above an aquitard that limits downward migration where there is an unsaturated interval below it, between the aquitard and the zone of saturation.

(35) “Practicable alternative” is an alternative that is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

(36) “Resource Values” are the benefits provided by the water resource. These benefits include, but are not limited to, the ability of the water resource to:

(a) filter, settle and/or eliminate pollutants;

(b) prevent the entry of pollutants into downstream waters;

(c) assist in flood prevention;

(d) provide habitat for fish, aquatic life, livestock and water fowl;

(e) provide drinking water for wildlife and water fowl;

(f) provide and support recreational uses; and

(g) provide both safe and adequate quality and quantity of drinking water.

(37) “Sediment” means soil or its constituents that has been deposited in water, is in suspension in water, is being transported, or has otherwise been removed or disturbed from its site of origin.

(38) “Sedimentation or Siltation” means the process by which sediment is deposited in or by the waters of the State.

(39) “Settling Basin” means a prepared storage area constructed to trap and store sediment from erodible areas in order to protect any streams below the construction areas from excessive siltation; an impoundment that accumulates transported sediment and has provisions for a principal spillway; a reservoir which retains high flows sufficiently to cause deposition of transported sediment.

(40) “Stabilize” means the proper placing, grading, and/or covering of soil, rock, or earth to insure their resistance to erosion, sliding or other movement.

(41) "Stream" means a surface water that is not a wet weather conveyance.

(42) “Structure” means any building, pier, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, mooring structure, moored floating vessel, piling, aid to navigation, bridge, culvert or any other obstacle or obstruction.

(43) “Utility Line” means any pipe or pipeline for the transportation of any gaseous, liquid, liquefiable or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone and telegraph messages, and radio and television communication.

(44) “Watercourse” means a manmade or natural hydrologic feature with a defined linear channel which discretely conveys flowing water, as opposed to sheet-flow.

(Rule 1200-04-07-.03, continued)

(45) “Water Dependent” describes an activity that requires location in or adjacent to surface waters or wetlands in order to fulfill its basic purpose.

(46) "Wetlands" means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

(47) "Wetland Dependent" means that the location of a project or conducting an activity in a wetland is essential to fulfill the purpose of the project. Examples of such projects are fish and wildlife management, nature trails, wildlife observation points, etc.

(48) “Wet Weather Conveyances” are man-made or natural watercourses, including natural watercourses that have been modified by channelization, that flow only in direct response to precipitation runoff in their immediate locality, whose channels are at all times above the ground water table, that are not suitable for drinking water supplies, and in which hydrological and biological analyses indicate that, under normal weather conditions, due to naturally occurring ephemeral or low flow there is not sufficient water to support fish, or multiple populations of obligate lotic aquatic organisms whose life cycle includes an aquatic phase of at least two months.

(49) “Wet weather conveyance determination” means the decision based on site specific information of whether a particular conveyance is a stream or a wet weather conveyance. It is synonymous with “stream determination” and “hydrologic determination.”

(50) “Zone of saturation” – A subsurface zone below the ground water table in which all of the interconnected voids and pore spaces are filled with water.

(51) Terminology not specifically defined herein shall be defined in accordance with the Tennessee Water Quality Control Act of 1977, T.C.A. §69-3-101 et seq., and the rules adopted thereunder.

Authority: *T.C.A. §§4-5-201 et seq., 69-3-101 et seq., 69-3-105(b) and 69-3-108.* ***Administrative History:*** *Original rule filed February 26, 1987; effective April 12, 1987. Amendment filed October 8, 1991; effective November 22, 1991. Amendment filed August 25, 2000; effective November 8, 2000. Repeal and new rule filed March 2, 2011; effective May 31, 2011.*

1200-04-07-.04 PERMITS

(1) Application for a Permit.

(a) Any person who plans to engage in any of the activities outlined in §69-3-108 must obtain a permit from the Commissioner to lawfully engage in such activity. There are three (3) types of permits: Individual Permits; §401 Water Quality Certifications; and General Permits. There are several types of General Permits: (1) a General Permit that authorizes the implementation of the activity in accordance with all the terms and conditions of the General Permit without prior notice and approval from the Commissioner; (2) a General Permit which requires the applicant notify TDEC of the planned activity prior to implementing the activity in accordance with the terms and conditions of the General Permit; and (3) a General Permit which requires the applicant to notify the Commissioner of the planned activity and receive approval from the Commissioner prior to implementing the activity in accordance with the terms and conditions of the General Permit. Certain of the General Permits authorize an activity that is authorized by a Nationwide Permit of the U.S. Corps of Engineers and therefore serve as a §401 Certification. Persons need not file an application with the Commissioner if they are conducting an activity pursuant to a General Permit that does

not require Notice or approval. Persons who desire to implement an activity pursuant to a General Permit which requires Notice or Notice and prior approval, must submit the necessary documentation required by the General Permit prior to implementing the planned activity in accordance with the terms and conditions of the General Permit. A person must file an application for an Individual Permit or for a §401 Water Quality Certification with the Department, in accordance with paragraph (3) and (5) of this rule, to implement any activity that is not authorized by a General Permit. All General Permits in effect as of the date of this Rule shall continue in effect, and are not revoked by these Rules.[1]

(b) The application to the Commissioner for certification of activities which require §404 permits from the United States Army Corps of Engineers (Corps) shall be the application filed with the Army Corps of Engineers. The Joint Public Notice which shall be issued by the Corps, describes the activity and notifies the general public of the application for the §404 permit and state certification and of the public's right to submit comments and requests for public hearing. If further information is required for project evaluation, the Commissioner may request it from either the applicant or the Corps.

(2) General permits.

The Commissioner may use General Permits to authorize alterations to state waters for specific categories of activities that are substantially similar in nature within the state or other specified geographical areas. When the Commissioner determines that a category or activity is suitable for coverage by a General Permit, or that substantive modification of existing General Permits is consistent with §69-3-108 of the Tennessee Water Quality Control Act of 1977, the Commissioner will provide notice of and conduct a minimum of one (1) public hearing. The public notice will contain the relevant information, as set forth in part (4)(c). TDEC will distribute the public notice to interested persons who have requested TDEC notify them of ARAP applications and by posting on the TDEC website. Interested persons may submit written comments on the General Permit within thirty (30) days of the public notice or such greater period as the Commissioner allows. All written comments submitted shall be retained and considered in the final determination to issue a General Permit.

(3) §401 Water Quality Certification.

(a) General. Any person who plans to engage in any of the activities outlined in §404 of the Federal Clean Water Act must obtain a federal permit as well as either a state permit or a state water quality certification under §401 of the Clean Water Act to lawfully engage in such activity in the State of Tennessee. Section 401 of the Federal Clean Water Act requires the Commissioner to certify that the issuance of the federal §404 permit meets the requirements of sections of the Federal Clean Water Act and the Water Quality Control Act. Persons must make application for the planned activity with the Army Corps of Engineers for an individual §404 permit or make use of a Corps of Engineers' nationwide permit.

(b) An individual §404 permit. Where the activity requires an individual §404 permit, the application filed with the Army Corps of Engineers will serve as the application for either the state permit or the state §401 certification. The applicant must file the

[1] The following activities were authorized by a General Permit on the date these rules were promulgated: Bank Stabilization, Gravel Dredging, Launching Ramps, Road Crossings, Alteration of Wet Weather Conveyance, Stream Restoration and Habitat Enhancement, Minor Wetlands, Bridge Scour Repair, Emergency Road Repair, Utility Line Crossings, Surveying and Geotechnical Exploration, Minor Dredging, Alteration and Restoration of Intermittent Streams for Mining, Maintenance Activities, Relocation of Intermittent Streams, Wetlands Restoration and Enhancement, and Impoundment of Intermittent Streams.

completed federal application with TDEC for the Commissioner to process and evaluate. The Commissioner will review a completed application and make a determination whether to issue a §401 Water Quality Certification. The application must describe the proposed activity and include all the necessary technical information for the Commissioner to make a determination, including an evaluation of practicable alternatives. The practicable alternatives analysis required by this part shall be satisfied by the applicants' submittal to the Division of a practicable alternatives evaluation for the proposed activity which has been submitted to the Army Corps of Engineers.

(c) A nationwide permit. Where the activity can be authorized by a Corps of Engineers nationwide permit, the §401 certification can be obtained through the use of a state general permit, if applicable, or an individual permit pursuant to paragraph (5) of this rule. If the Commissioner issues a §401 Certification, the §401 Certification is the state permit.

(4) Public Notice and Participation.

(a) An ARAP Individual Permit or a §401 Certification requires the issuance of Public Notice seeking public participation and comment on the planned activity. However, Public Notice is not required for an activity authorized by General Permit since Public Notice is provided pursuant to part (2) of this part. Each completed application shall be subject to the public notice and participation requirements of Part (b) of this part with the following exceptions:

1. §401 Certification. The Department's procedure for issuing public notice for certification of an application for a federal license or permit pursuant to §401 of the Clean Water Act may be either a public notice issued jointly with the Corps, or a public notice issued by the Department. Such notice will describe the activity, advise the public of the scope of certification, their rights to comment on the proposed activity and to request a public hearing. The notice will also inform the public to whom they should send their requests and comments.

2. Minimal impact activities. For activities that are projected to have only minimal impacts to state waters, which can be readily addressed, the Commissioner may utilize a twenty (20) day public notice period.

3. When the Commissioner determines that a proposed permit modification will not materially change water quality aspects of the project, or will result in an improvement of water quality, as compared to the originally permitted activity, a permit may be modified without public notice.

4. Where the Commissioner determines an emergency situation exists, a permit for remedial action may be issued without prior public notice and participation. The emergency permit shall be advertised by public notice, however, no later than twenty (20) days after issuance. This permit shall be subject to all other provisions of Part (b) of this Rule. The remedial actions allowed shall be limited to those necessary to remedy the emergency.

(b) Upon receipt of a completed ARAP application, the Commissioner will review and evaluate the proposed activity or project to make a determination whether to issue an Individual Permit, as described in (5) of this Part. In order to inform interested and potentially interested persons of the proposed activity, a Public Notice seeking public participation and comment on the activity will be given.

(c) The Public Notice will include the following information:

1. Name, address, and telephone number of the applicant;

2. Name and address of TDEC contact person;

3. A brief description of the proposed activity;

4. A brief description of the scope of the proposed activity;

5. The location of the state waters impacted by the proposed activity;

6. A sketch or detailed description of the location of the proposed activity and the subject waters of the state;

7. The purpose of the proposed activity;

8. The watershed of the subject waters;

9. A description of the conditions of the subject waters and the watershed, (e.g., physical conditions of the waters, quality of the waters such as size, flow, substrate, channel, etc.);

10. The procedure to submit comments on the proposed activity;

11. The procedure for requesting a public hearing; and

12. A brief description of the procedure for the Commissioner to make a final determination to issue a permit.

(d) The approved Public Notice shall be distributed to interested persons and shall be circulated within the geographical area of the proposed activity as follows:

1. TDEC will distribute the approved Public Notice to interested persons who have requested TDEC notify them of ARAP applications and by posting on the TDEC website.

2. The Applicant shall distribute the approved Public Notice to the neighboring landowners by publishing in a local newspaper of general circulation and by posting a sign within view of a public road in the vicinity of the proposed project site as specified by the Division. The sign shall contain those provisions as specified by the Division. The sign shall be of such size that is legible from the public road. Also, the sign shall be maintained for at least thirty (30) days following distribution of the approved Public Notice.

3. The applicant shall provide certification to the Division of compliance with item 2.

(e) A copy of the public notice shall be sent to any person who specifically requests one. Interested persons may submit written comments on the proposed activity within thirty (30) days of public notice or such greater period as the Commissioner allows. All written comments submitted shall be retained and considered in the final determination to issue a permit.

(f) Interested persons, including the applicant, may request, in writing, that the Commissioner hold a public hearing on any application. Said request from interested persons must be filed no later than the end of the period allowed for public comment, and must indicate the interest of the party filing it, must concisely state the water quality

issues being raised, and the reasons why a hearing is warranted. If there are water quality issues and significant public interest in having a hearing, the Commissioner shall hold one in the geographical area of the proposed activity. No less than thirty (30) days in advance of the hearing, public notice of it shall be circulated at least as widely as was notice of the application. The Commissioner will distribute notice of the public hearing as set forth in (d)(1) above, and by publishing in a local newspaper. The notice shall cite the date, time and place of the public hearing, a statement of the issues raised by the person requesting the hearing, and the purpose of the public hearing.

(5) Individual Permits.

(a) Persons who plan to engage in any activity that requires an Aquatic Resource Alteration Permit which is not governed by a General Permit or a §401 Water Quality Certification, must submit an application to the Commissioner for review and approval prior to implementing the planned activity. The Commissioner will review a completed application and make a determination whether to issue an Individual Permit. The application must describe the proposed activity and include all the necessary technical information for the Commissioner to make a determination. The applicant shall assess the practicable alternatives for a planned activity. If the activity does not avoid impacts to state waters, the individual must comply with Section 7 of this Part. However, if the nature of the affected waters is such that mitigation is not reasonably likely to result in no net loss of water resource values, and if there is a practicable alternative to the activity which through avoidance or minimization of impacts would result in no net loss, then such alternative shall be selected.

(b) An applicant shall describe the proposed project including the use of technical terms in the definition section of this part where relevant. The sketch or plans and specifications submitted with the application shall describe the method for implementation of the planned activity. Where the proposed activity would result in an appreciable permanent loss of resource value, the applicant must propose adequate mitigation actions so that there is no overall net loss of state water resource values. The applicant shall set forth in the application a brief summary of the practicable alternatives considered to implement the proposed activity.

(c) An Individual Permit is required for water withdrawals which will or will likely result in alteration of the properties of the source stream.

1. Persons proposing to withdraw water from waters of the state in a manner which will or will likely result in an alteration of the properties of the source stream, shall file an application with the Department which includes the following minimum information:

(i) proposed withdrawal rates and volumes;

(ii) proposed withdrawal schedule; and

(iii) flow data of the source stream (if free flowing).

2. Where a permit for water withdrawal is required, the Commissioner shall establish permit conditions which are protective of the source stream's resource value. These conditions may include flow levels below which no withdrawal may occur. The Commissioner may also establish a maximum withdrawal rate in order to maintain the natural flow fluctuation characteristics of the source stream.

(6) Permit Evaluation Criteria.

(a) Some activities may not be entitled to a permit. When a permit is granted, it shall require compliance with all provisions of the Act, the regulations adopted pursuant to the Act, and any special terms or conditions the Commissioner determines are necessary to fulfill the purposes or enforce the provisions of the Act.

(b) A permit may be modified, suspended, or revoked for cause by the Commissioner upon such notice to the permittee as required by law. Permits for activities that have been completed are not subject to modification. If a modification results in a less restrictive permit, then public notice and opportunity for hearing must be given prior to modification. Cause shall include, but not be limited to the following:

1. violation of any terms or conditions of the permit;

2. obtaining a permit by misrepresentation or failure to disclose fully all relevant facts;

3. causing a condition of pollution;

4. violation(s) of the Act or other environmental statutes;

5. a change in the Act or regulations that substantively impacts the content of the permit;

6. a change in the Federal Clean Water Act that substantively impacts the content of the permit; and

7. a significant change of the physical condition(s) of the site or the waters.

(c) The Act requires that no activity be authorized by the Commissioner unless any lost resource value associated with the proposed impact is offset by mitigation sufficient to result in no overall net loss of resource value . In a situation in which an applicant proposes mitigation that would not result in no overall net loss, the Commissioner shall not issue the permit unless the applicant redesigns the project to avoid impacts, minimize them, or provide mitigation as provided in paragraph (7) so that the redesigned project would result in no net loss of resource value. In making a decision on a permit application, the Commissioner shall determine the lost resource value associated with a proposed impact and the resource value of any proposed mitigation and shall consider the following factors:

1. direct loss of stream length, waters, or wetland area due to the proposed activity;

2. direct loss of in-stream, waters, or wetlands habitat due to the proposed activity;

3. impairment of stream channel stability due to the proposed activity;

4. diminishment in species composition in any stream, wetland, or state waters due to the proposed activity;

5. direct loss of stream canopy due to the proposed activity;

6. whether the proposed activity is reasonably likely to have cumulative or secondary impacts to the water resource;

7. conversion of unique or high quality waters as established in Rule 1200-4-3-.06 to more common systems;

8. hydrologic modifications resulting from the proposed activity;

9. the adequacy and viability of any proposed mitigation including, but not limited to, quantity, quality, likelihood of long term protection, and the inclusion of upland buffers;

10. quality of stream or wetland proposed to be impacted;

11. whether the state waters is listed on the §303(d) list; whether the proposed activity is located in a component of the National Wild and Scenic River System, a State Scenic River, waters designated as Outstanding National Resource Waters, or waters identified as high quality waters as defined in Rule 1200-4-3-.06, known as Tier II waters; whether the activity is located in a waterway which has been identified by the Department as having contaminated sediments; and whether the activity will adversely affect species formally listed in State and Federal lists of threatened or endangered species; and

12. any other factors relevant under the Act.

(d) All permits which require mitigation of impacts shall contain conditions requiring that the mitigation is performed properly, performed in a timely manner and is adequately maintained.

(7) Mitigation.

(a) Mitigation of state waters other than wetlands.

If an applicant proposes an activity that would result in an appreciable permanent loss of resource value of a state water, the applicant must provide mitigation which results in no overall net loss of resource values. The applicant shall provide the Commissioner with a time schedule for completion of all mitigation measures for approval. Further, for any mitigation involving the relocation or re-creation of a stream segment, to the extent practicable, the applicant shall complete the mitigation before any impact occurs to the existing state waters. Mitigation measures include, but are not limited to:

1. Restoration of degraded stream reaches and/or riparian zones;

2. New (relocated) stream channels;

3. Removal of pollutants from and hydrologic buffering of stormwater runoff; and

4. Any other measures which have a reasonable likelihood of increasing the resource value of a state water.

The Commissioner will assess the proposed mitigation to assure there is no overall net loss of resource value. The mitigation measures or actions should be prioritized in the following order: restoration, enhancement, re-creation, and protection.

(b) Mitigation of Wetlands.

1. If an applicant proposes an activity that would result in an appreciable permanent loss of resource value of wetlands, the applicant must provide mitigation, which results in no overall net loss of resource value. The applicant shall provide the Commissioner with a time schedule for completion of all mitigation measures for approval. Further, for any mitigation involving the enhancement or preservation

of existing wetlands, to the extent practicable, the applicant shall complete the mitigation before any impact occurs to the existing state waters. For any mitigation involving restoration or creation of a wetland, to the extent practicable, the mitigation shall occur either before or simultaneously with impacts to the existing state waters. Mitigation for impacts to wetlands are prioritized as follows:

(i) Restoration of a previously degraded or impacted wetland (with emphasis on prior converted areas) on-site or in the immediate project area;

(ii) Restoration, including mitigation banking, off-site but within the eight digit United States Geological Survey hydrological unit in which the project is located;

(iii) Restoration, including mitigation banking, outside of the eight digit United States Geological Survey hydrological unit in which the project is located;

(iv) Creation of wetlands on-site or in the immediate project area;

(v) Creation of wetlands off-site;

(vi) Enhancement of existing wetlands;

(vii) Preservation of existing wetlands; or

(viii) A combination of any of the above activities.

2. The ratio of acres required for wetland mitigation should not be less than 2:1 for restoration activities; 4:1 for creation and enhancement; and 10:1 for preservation. Alternatively, the applicant may propose and utilize, subject to the Division's approval, best professional judgment ratios. The best professional judgment ratios shall be based on the resource value and functions of the affected wetland, resource value of the mitigation, and the likelihood of success of the mitigation.

3. All wetland mitigation projects shall include a monitoring and reporting program to document timely achievement of a successful mitigation wetland and remedial actions to correct any deficiency.

(8) Duration and Re-issuance of Permits.

(a) Each permit issued shall have a fixed term not to exceed five (5) years.

(b) Re-issuance of permits is not required for one-time alterations such as construction, as long as the alterations are completed within the time limit established by permit.

(c) For on-going alterations, such as water withdrawals, any permittee who wishes to continue the permitted activity after the expiration date of the permit must make application at least ninety (90) days prior to its expiration date.

(d) The Commissioner shall follow the procedures for public notice and participation detailed in paragraph (4), above, regarding each application for re-issuance of a permit.

(9) Review of Permit Denials, Suspensions, Revocations, Terms and Conditions.

Permittees and applicants for permits who disagree with the denial, suspension or revocation of a permit or the terms and conditions of a permit are entitled to review of the Commissioner's decision by the Water Quality Control Board pursuant to §69-3-105. Any action taken by the Commissioner regarding a permit remains in effect unless and until an order of the Water Quality Control Board or a reviewing court becomes final.

(10) Alteration of wet weather conveyances

(a) The alteration of wet weather conveyances, as defined in §69-3-103, by any activity is permitted by this subsection and shall require no notice to or approval by the department, provided it is done in accordance with the following conditions:

1. The activity may not result in the discharge of waste or other substances that may be harmful to humans or wildlife;

2. Material may not be placed in a location or manner so as to impair surface water flow into or out of any wetland area; and

3. Sediment shall be prevented from entering other waters of the state.

(i) Erosion and sediment controls shall be designed according to the size and slope of disturbed or drainage areas to detain runoff and trap sediment and shall be properly selected, installed, and maintained in accordance with the manufacturer’s specifications and good engineering practices.

(ii) Erosion and sediment control measures shall be in place and functional before earthmoving operations begin, and shall be constructed and maintained throughout the construction period. Temporary measures may be removed at the beginning of the work day, but shall be replaced at the end of the work day.

(iii) Checkdams shall be utilized where runoff is concentrated. Clean rock, log, sandbag or straw bale checkdams shall be properly constructed to detain runoff and trap sediment. Checkdams or other erosion control devices are not to be constructed in stream. Clean rock can be of various type and size depending on the application. Clean rock shall not contain fines or other wastes or contaminants.

4. Appropriate steps shall be taken to ensure that petroleum products or other chemical pollutants are prevented from entering waters of the state, All spills shall be reported to the appropriate emergency management agency and to the department. In the event of a spill, measures shall be taken immediately to prevent pollution of waters of the state, including ground water.

5. There shall be no additional conditions upon a person’s activity within a wet weather conveyance. This provision does not apply to National Pollutant Discharge Elimination System Permits.

Authority: *T.C.A. §§4-5-201 et seq., 69-3-101 et seq., 69-3-105(b) and 69-3-108.* ***Administrative History:*** *Original rule filed February 26, 1987; effective April 12, 1987. Amendment filed October 8, 1991; effective November 22, 1991. Amendment filed August 25, 2000; effective November 8, 2000. Amendment filed March 2, 2011; effective May 31, 2011.*

1200-04-07-.05 through 1200-04-07-.11 REPEALED

Authority: *T.C.A. §69-3-105(b) and 69-3-108.* ***Administrative History:*** *Original rule filed February 26, 1987; effective April 12, 1987. Amendment filed October 8, 1991; effective November 22, 1991. Repeal filed August 25, 2000; effective November 8, 2000.*

RULES
OF
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
WATER QUALITY CONTROL BOARD
DIVISION OF WATER POLLUTION CONTROL

CHAPTER 1200-4-8
RULES AND REGULATIONS APPLIED TO T.C.A. §69-1-1

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1200-4-8-.01 GENERAL.

This regulation prescribes those requirements for Department of Environment and Conservation permits to authorize certain structures or work in or affecting navigable waters of the State of Tennessee pursuant to T.C.A.§69-1-1 (hereinafter referred to as the Act). Certain structures or work in or affecting navigable waters of the State of Tennessee are also regulated under T.C.A. §69-3-1. T.C.A. §70-5-1 and §404 of the Clean Water Act (33 U.S.C. 1344; see 33 CFR Part 323). Applicants for a Department of Environment and Conservation permit under this Chapter should refer to the other cited authorities and implementing regulations for those permit requirements to determine applicability to their proposed activities.

Authority: *T.C.A. §§69-1-117(a)(b) and 4-5-201 et seq.* ***Administrative History:*** *Original rule filed March 29, 1988; effective May 13, 1988.*

1200-4-8-.02 DEFINITIONS.

(1) For the purpose of this regulation, the following words shall have the same meaning as in the Water Quality Control Act and the rules adopted thereunder: Board, Commissioner, construction, Department, Director, discharge, Division, person, pollution and waters.

(2) For the purpose of this regulation, unless the context requires otherwise, the following words shall have the definitions given.

(a) "Activity" means the performance, or carrying out of a project or construction of a structure.

(b) "Alteration" means any repair, change, removal, or addition to a structure which may affect the navigability of rivers, lakes, streams or watercourses subject to this Act.

(c) "Commence Construction" means the physical initiation of on site structural or ground work.

(d) "Navigable Waters" means any river, lake, stream or watercourse, natural or man-made, or their tributaries which have been adjudicated and held to be navigable in the technical or legal sense, pursuant to T.C.A. §69-1-101 et seq. and are not subject to the Rivers and Harbors Act, 33 U.S.C., §401 et seq.

(e) "Obstruction" means any work, project, activity, or structure that obstructs or impedes the capability, in the usual stage of the water, of unencumbered navigation by such vessels as are employed in the ordinary purposes of commerce or recreation.

(f) "Ordinary High Water Mark" means the mark on the shore established by the fluctuations of water and indicated by physical characteristics such as: the residual particulate matter impressed on the bank and vegetation, the presence of litter and debris, changes in the character of soils

and vegetation, or other appropriate means that consider the characteristics of the surrounding areas.

(g) "Ordinary Low Water Mark" means the line which constitutes the usual or ordinary stage of a river or lake, when the volume of water is not increased by rains or freshet, nor diminished below such usual stage or volume by long continued drought.

(h) "Project" means any dredging or disposal of dredged material, excavation, filling, construction of a structure or modification to an existing structure, or diversion of waters.

(i) "Structure" means any building, pier, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, mooring structure, moored floating vessel, piling, aid to navigation, or any other obstacle or obstruction.

Authority: *T.C.A. §§69-1-117(a)(b) and 4-5-201 et seq.* ***Administrative History:*** *Original rule filed March 29, 1988; effective May 13, 1988.*

1200-4-8-.03 PERMITS.

(1) Purpose of a Permit: Under the Act, it is not lawful, without a permit, to authorize, undertake, or engage in any activity which has or is likely to have the effect of impairing or obstructing the navigability of any river, lake, stream or watercourse within the state which has been adjudicated and held to be navigable in the technical or legal sense pursuant to T.C.A. §69-1-101 et seq. and is not subject to the Rivers and Harbors Act, 33 U.S.C., §401 et seq. The Act is intended to delimit permittable structures and activities. A permit under the Act is designed to define and impose circumstances and conditions necessary to prevent any encumbrance to the navigability of navigable waters which may otherwise result from those structures or activities.

(2) Application:

(a) Except as otherwise provided in these regulations, a person who plans to engage or who is engaging in an activity below ordinary high water which may affect the course, location or condition of navigable waters must make application in writing to the Commissioner for a permit, or for modification of an existing permit.

(b) Applicants must complete and submit standard application forms supplied by the Commissioner together with such engineering reports, plans and specifications as are required. The Commissioner may subsequently request additional information as he deems necessary in order to make the permit decision.

(c) All activities which the applicant plans to undertake which are reasonably related to the same project for which a permit is required under the Act should be included in the same application.

(d) The Commissioner may reject, as incomplete, any application which does not provide all information requested on the standard application form or does not comply with item (2)(c) of this rule.

(3) Notice and Public Participation:

(a) Each completed application shall be evaluated and a tentative determination of whether to issue or deny a permit shall be made. If a tentative determination is made to issue a permit, a draft permit shall be prepared that includes a proposed schedule of completion, including interim dates and requirements, and a brief description of any other proposed special conditions.

(b) In order to inform interested and potentially interested persons of a proposed activity and of the tentative determinations regarding it, public notice shall be circulated within the geographical area of the proposed activity. Upon receipt of a complete application and after a determination has been made that a permit is required, any of the following methods for distribution may be employed:

1. Posting in and public places within the municipality nearest the premises in which the activity is proposed; or

2. Posting near the entrance to the applicant's premises and in nearby places; or

3. Publishing in local newspapers and periodicals, or, if appropriate, in a daily newspaper of general circulation.

(c) A copy of the public notice and accompanying descriptive information shall be sent to any person who specifically requests one. In addition, a copy shall be sent to any state whose waters may be affected by the proposed activity: to any interstate agency having water quality control or navigation authority over affected waters; to the appropriate District Engineer of the U.S. Army Corps of Engineers; and to other State and Federal agencies. If so requested, the State or Interstate agency shall be provided a copy of the permit application and a copy of the proposed permit. The Commissioner shall send a copy of each notice of application and accompanying descriptive information within the state or a certain geographical area thereof to those persons who have requested the addition of their names to a mailing list. The Commissioner may annually purge the mailing list of those persons who do not renew their requests.

(d) Public notice of applications shall include the following:

1. Name, address, and phone number of the Division;

2. Name and address of the applicant(s);

3. Written description of the proposed activity together with maps, drawings, or other appropriate means to describe the nature of the proposed activity;

4. Name of the waterway at which the activity is proposed and a description of the location of the activity within or proximity to the waterway;

5. A statement of the tentative determination to issue or deny a permit for the activity described in the application;

6. Address and phone number of the premises at which interested persons may obtain further information, request a copy of the draft permit and inspect and copy forms and related documents.

(e) Interested persons may submit written comments on the tentative determinations within either 15 days of public notice or such greater period as the Commissioner allows. All written comments received before the comment deadline shall be retained and considered in the final determination. Full consideration and appropriate weight will be given to all comments, including those of federal, state, and local agencies and other experts on matters within their expertise.

(f) For the purpose of these regulations, procedures for public hearings on permit applications shall be as described in the rules of the Department of Health and Environment, §1200-4-1-.05(3)(g), (h), (i).

(4) Circumstances, Conditions and Limitations of Permits:

(a) A permit under the Act may authorize both the activity and the resulting use.

(b) The Commissioner may add special conditions to a permit when such conditions are necessary to satisfy legal requirements and to otherwise satisfy the stated purpose of the Act. Permit conditions will be directly related to the impacts of the proposal, appropriate to the scope and degree of those impacts, and enforceable.

(c) The Commissioner may suspend, modify or revoke a permit if he determines that the applicant has not complied with any of the conditions or limitations set forth in the permit, or has exceeded the scope of the work set forth in the application. Unauthorized modifications or alterations to a permitted structure or activity are unlawful and may invalidate the permit.

(d) §40l Water Quality Certification of any activity which requires a Department of the Army permit for the discharge of dredged or fill material under §404 of the Clean Water Act will serve as a permit under this Chapter.

(e) Any activity or structure which was commenced before July 1, 1986, does not need a permit under this Act.

(f) The decision whether to issue a permit for an activity or structure will be based upon an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on navigability. All factors which may be relevant to the proposal must be considered.

(g) A riparian landowner’s general right of access to navigable waters is subject to the general public’s right of navigation on the water surface. Proposals which create an undue hindrance to use of, or access to navigable waters, will be deterred as contrary to the public interest.

(h) The applicant’s signature on an application is an affirmation that the applicant possesses or will possess the requisite property interest to undertake the proposed activity. A permit under the Act does not convey any property rights, either in real estate or material, or any exclusive privileges.

(i) Applications to protect property from erosion will generally be permitted. However, if the protective structure results in an interference to navigation, or is otherwise contrary to the public interest, then an attempt to define and impose reasonable alternative methods to protect the property from erosion will be accomplished by the Commissioner.

(j) The primary responsibility for determining zoning and land use matters rests with local government. It is the responsibility of the applicant to determine and comply with zoning and land use requirements.

(k) The applicant shall have the burden of demonstrating that the proposed activity will comply with the requirements of the Act.

(1) The Commissioner may deny a permit application if the proposed activity would result in an unreasonable hindrance to navigation.

(Rule 1200-4-8-.03, continued)

(m) An activity requiring a permit under these rules may also require a permit pursuant to the Tennessee Water Quality Control Act of 1977, T.C.A. §69-3-101 et seq. The issuance of such a permit is based upon different criteria than those of this Act and these Rules. Therefore, issuance of a permit under these rules has no effect on whether a permit under T.C.A. §69-3-101 et seq. will be issued.

(n) A permit shall continue in effect until it expires or is suspended or revoked.

(o) A permit for a structure or other activity of a permanent nature will normally have no expiration date. However, where a temporary structure is authorized, the permit will be of limited duration with a definite expiration date.

(p) A permit for construction work for a structure which requires a permit of indefinite duration will specify a time limit for completing the activity. A permit may also specify the date by which the activity must be started normally within one year of from the date of issuance. The date will be established by the Commissioner and will provide a reasonable period based upon the scope and nature of the activity involved.

(q) An extension of time of a permit for an activity or structure of a temporary nature may be granted by the Commissioner. A permit will expire if the permittee fails to request and receive an extension of time. A request for an extension of time will be processed in accordance with the regular procedures of (2) and (3) of this section, including public notice, except that such processing is not required where the Commissioner determines that there have been no significant changes in the attendant circumstances since the permit was issued.

(5) Reelfoot Lake

(a) For the purpose of this rule, the natural water levels of the navigable stream Reelfoot Lake are delineated as follows:

1. The ordinary low water mark is two hundred eighty-two and four-tenths feet (282.4') mean sea level.

2. The full pool level is two hundred eighty-three and six-tenths feet (283.6') mean sea level.

3. The ordinary high water mark is two hundred eight-five feet (285') mean sea level.

(b) Structures which are located above normal full pool elevation (283.6' msl) but below ordinary high water (285' msl) are authorized by this rule.

(c) Duck blinds authorized by the Tennessee Wildlife Resources Agency pursuant to T.C.A. §§70-1-206 and 70-4-107 are authorized by this rule.

(6) Review of Permit Denials, Terms and Conditions: Any applicant who is denied a permit or who disagrees with the terms or conditions imposed in the permit is entitled to review of the Commissioner's decision. Any action by the Commissioner regarding a previously issued permit, such as modification or revocation of an existing permit, may also be appealed. Such appeals may be perfected by filing a request for a hearing with the Commissioner's action. Such appeals shall be conducted in accordance with the Tennessee Uniform Administrative Procedures Act T.C.A. §4-5-201 et seq.

Authority: *T.C.A. §§69-1-117(a)(b) and 4-5-201 et seq.* ***Administrative History:*** *Original rule filed March 29, 1988; effective May 13, 1988.*

RULES
OF
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER SUPPLY

CHAPTER 1200-4-9
WATER WELL LICENSING REGULATIONS AND WELL CONSTRUCTION STANDARDS

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1200-4-9-.01 DEFINITION OF TERMS.

(1) "Abandoned well" means any well that has permanently been discontinued from further use. A well shall be declared abandoned when the pump has been disconnected or removed for reasons other than repair or replacement or when the well is in such a state of disrepair that continued use for the purpose intended is impracticable.

(2) "Abandonment" means the act of properly sealing an abandoned well.

(3) "Act" means the Water Wells Act of 1963 as amended (T.C.A. *69-11-101 et. seq.)*

(4) "Animal pen" means an enclosed area one-half (1/2) acre or less where ten or more animals congregate for feeding and watering where vegetation or ground cover has been destroyed or is missing and the area is covered with manure or mud.

(5) "Aquifer" means a geologic formation, a group of such formations, or a part of a formation that will yield usable quantities of water to wells.

(6) "Artesian" means ground water confined under sufficient hydrostatic pressure to rise above the aquifer containing it.

(7) "Beneficial Use" means application of a resource to a purpose that produces economic or other benefits, tangible or intangible, economic or otherwise, such as procurement of water for domestic, industrial, or agricultural use or for a municipal water supply.

(8) "Bentonite" means a clay derived from volcanic ash consisting of at least 85% montmorillonite. Bentonite is available in the following forms:

(a) "Bentonite granules" means 8 mesh pure bentonite, without additives.

(b) "Bentonite pellets" means commercially manufactured tablets made by compressing pure bentonite, without additives, into forms greater than 1/4 inch in size.

(c) "Bentonite chips" means commercially processed angular fragments of pure bentonite without additives.

(9) “Board” means Board of Ground Water Management.

(10) "Borehole" means the cylindrical opening created by the action of a drill or auger as it penetrates the subsurface.

(11) "Casing" means pipe or tubing, constructed of specified materials and having specified dimensions and weights, that is installed in a borehole during or after completion of the borehole to support the side of the hole and thereby prevent caving, to allow completion of the well, to prevent formation material from entering the well, and to prevent entry of undesirable water into the well.

(12) "Certificate" means a written or printed statement or decal issued by the Department to the licensee which assigns a license number and license type to the license holder.

(13) “Closed loop geothermal borehole” means a cylindrical opening created by the action of a drill or auger as it penetrates the subsurface greater than twenty feet in depth used to either extract or transfer heat from the earth for heating or cooling. This is also referred to as a geothermal well in the T.C.A. 69-11-101 et. seq.

(14) “Closed Loop Installer” means a person who installs and grouts droplines or closed loops in closed loop geothermal boreholes. This may also be referred to as a looper.

(15) “Commissioner" means the Commissioner of Environment and Conservation, the Commissioner’s duly authorized representative and, in the event of his absence or a vacancy in the office of Commissioner, the Deputy Commissioner of Environment and Conservation.

(16) "Completion date of well" means the date that drilling equipment leaves or is removed from the well site. For closed loop geothermal borehole systems, the completion date of the borehole shall be the date of the drilling equipment is removed from the property.

(17) "Completion of drilling" means the date that drilling equipment leaves or is removed from the well site. For closed loop geothermal boreholes, the completion of drilling shall be the date that the drilling equipment is removed from the property.

(18) "Consolidated rock" means rock that is firm and coherent, solidified or cemented, such as granite, gneiss, limestone, slate or sandstone, which has not been decomposed by weathering.

(19) "Contamination" means the act of introducing into water foreign materials of such nature, quality, and quantity as to cause degradation of the quality of the water.

(20) "Department" means the Department of Environment and Conservation.

(21) "Director" means the Director of the Tennessee Division of Water Supply.

(22) "Domestic use" means the use of water for drinking, bathing, or culinary purposes.

(23) “Drill” means to dig, drill, re-drill, construct, deepen or alter a well.

(24) “Driller” means any person with knowledge and skill gained through practical experience in drilling operations who manages or supervises the digging, drilling, or redrilling of a well or borehole.

(25) “Dropline” in the context of closed loop geothermal boreholes means the u-bend closed loop piping material placed in a closed loop borehole to circulate a liquid to transmit heat to a geothermal

exchange unit. In the context of water wells the “dropline” means the piping which conveys water obtained from the water well to land surface.

(26) “Employee” means a person hired by the license holder under this Act to work for wages or salary where the license holder has submitted for such person, a notarized affidavit of supervision.

(27) “Experience” means the skill and knowledge derived from the actual direct participation and practice gained in a specific occupation. For drillers, experience includes the skill and knowledge gained in operating drilling equipment to drill and construct a well or closed loop geothermal borehole. For installers, experience includes the skill, knowledge and actual direct participation in determining the equipment required and installing equipment either in or on wells or closed loop geothermal boreholes. Such skill and knowledge must qualify the individual to deal with circumstances and problems that may be encountered by an occupation.

(28) “Geothermal well” means a hole drilled into the earth, by boring or otherwise, greater than twenty feet in depth constructed for the primary purpose of adding or removing British Thermal Units (BTU) from the earth for heating or cooling. This is also referred to as a closed loop geothermal borehole.

(29) “Grout" means a stable, impervious, minimum shrinkage bonding material that is capable of producing a watertight seal required to protect against the intrusion of contamination.

(30) “Inactive well” means any well not in use and does not have functioning equipment, including bailers, associated either in or attached to the well.

(31) "Installation of pumps" means the procedure employed in the placement and preparation for operation of pumps and pumping equipment in water wells, including all construction involved in making entrances to the well and establishing seals.

(32) “Installer” means any person who installs or repairs well pumps or who installs filters or water treatment devices.

(33) "Liner casing" means pipe that is installed inside a completed and cased well for the purpose of sealing off undesirable water or for repairing ruptured or punctured casing or screens.

(34) “Log” means a record of the consolidated or unconsolidated formations penetrated in the drilling of a well, and includes general information concerning construction of a well.

(35) “Monitoring well” means a hole drilled into the earth, by boring or otherwise, constructed for the primary purpose of obtaining information on the elevation or physical, chemical, radiological or biological characteristics of the ground water and /or for the recovery of ground water for treatment.

(36) "Overburden” means unconsolidated earth material that overlies consolidated rock material.

(37) “Open loop borehole” means a water well designed to produce source water above land surface to provide heat transfer to a geothermal unit.

(38) "Person" means any individual, organization, group, association, partnership, corporation, limited liability company, utility district, state or local government agency or any combination of them.

(39) "Pit" means a cavity or hole in the ground, the bottom of which is below the level of the surrounding turf.

(40) "Pitless Adapter" or "pitless unit" means a device specifically manufactured for the purpose of allowing a below ground lateral connection between a well and its plumbing appurtenances.

(41) "Potable water" means water that is not brackish or saline and does not contain total coliform bacteria or chemical constituents in such quantity or type as to render the water unsafe, harmful or generally unsuitable for human consumption.

(42) “Production of water” means withdrawing water from the ground for beneficial use.

(a) Wells for the production of water include, but are not limited to, the following:

1. Borings that are used to locate, divert, withdraw, develop or manage ground water supplies for beneficial uses;

2. Test holes drilled to determine the availability of water supplies for beneficial uses; and

3. Wells drilled to supply water for ground water open loop heat pumps and air conditioners.

(b) The following are not wells for the production of water as used in these rules:

1. Post holes;

2. An excavation for the purpose of obtaining or prospecting for oil, natural gas, minerals other than water, products of mining and quarrying;

3. Injection wells regulated under Chapter 1200-4-6 of the rules of the Water Quality Control Board;

4. Cathodic protection wells;

5. Wells used for dewatering purposes in construction work;

6. Monitor wells, geographical test borings and piezometers that are regulated by rules of the Water Quality Control Board or otherwise by the Department;

7. Ponds, pits, sumps and drainage trenches;

8. Contaminant recovery wells otherwise regulated by the Department; and

9. Closed loop geothermal boreholes

(43) "Pumps and pumping equipment" means any equipment or materials utilized or intended for use in withdrawing or obtaining ground water, including well seals in a water well. Closed loops or droplines installed in closed loop geothermal boreholes are not considered pumping equipment.

(44) "Recovery well" means any well constructed for the purpose of removing contaminated groundwater or other liquids from the subsurface.

(45) "Repair" means work involved in deepening, reaming, sealing, installing, or changing casing depths, perforating, screening, or cleaning, acidizing, or redevelopment of a well excavation, or any other work which results in breaking or opening a well seal.

(46) "Standard Dimension Ratio (SDR)" means the quotient obtained when the outside diameter of thermoplastic well casing is divided by the wall thickness.

(Rule 1200-4-9-.01, continued)

(47) "Static water level" means the level at which the water stands in the well when the well is not being pumped and is expressed as the distance from a fixed reference point to the water level in the well.

(48) "Supervision" means the act of directing and managing full or part time unlicensed employees engaged in the business of constructing wells, or installing pumps, closed loops in closed loop geothermal boreholes or installing water treatment devices on wells.

(49) “Water Treatment Equipment” means any equipment, devices or filters utilized in altering the characteristics or quality of ground water for its intended use.

(50) “Water Well” means a hole drilled into the earth, by boring or otherwise, for the production of water.

(51) “Well” means one of the three types of holes in the earth: geothermal well, a monitoring well, or a water well.

(52) “Well closure” means the act of backfilling and sealing a well either active or abandoned in accordance with well abandonment standards.

(53) "Well construction" means all acts necessary to construct a well including, but not limited to the location and excavation of the borehole; placement of casings, screens and fittings; development and testing.

(54) “Well development" means the procedures used to remove mud or fine material from the drilled borehole, to correct any damage to the aquifer that occurred during drilling a water well and to improve the water passageways into the well from the aquifer.

(55) "Well driller" means an individual, firm or corporation engaged in the business of constructing wells.

(56) “Wellhead" means the upper terminal of the well including adapters, ports, valves, seals, and other attachments.

(57) “Well owner” means the person who owns the real property on which a well exists or is to be drilled provided however, in the case of any monitoring well or remediation required by the Department or the Commissioner, the well owner shall be the person responsible for such monitoring or remediation.

(58) “Well seal" means an approved arrangement or device used to cap a well or to establish and maintain a junction between the casing of a well and the piping or equipment installed therein, the purpose or function of which is to prevent pollutants from entering the well at the upper terminal.

Authority: *T.C.A. §§4-5-201 et seq., 69-11-106, and 69-11-107.* ***Administrative History:*** *Original rule filed February 21, 1990; effective April 7, 1990. Amendment filed June 21, 1993; effective August 5, 1993. Amendment filed October 12, 1998; effective December 26, 1998. Repeal and new rule filed December 1, 2004; effective February 14, 2005.*

1200-4-9-.02 REQUIREMENTS. After the effective date of this regulation, applicants for driller’s and installer’s licenses shall meet the following requirements to qualify for licensing under the Act:

(1) Be at least 18 years of age;

(2) Have a minimum of two (2) years experience, prior to the date of application, working in the occupation for which a license is being sought;

(3) Complete grade 10 in high school or submit proof of equivalent achievement demonstrated by successful completion of approved short courses or written examinations. Up to four years of full-time

(Rule 1200-4-9-.02, continued)

employment may be substituted for equal years of education. This shall be in addition to the experience requirements in paragraph (2); and

(4) Pass an examination as prescribed by the Board.

Authority: *T.C.A. §§4-5-201 et seq., 69-11-106(1), and 69-11-107(d).* ***Administrative History:*** *Original rule filed February 21, 1990; effective April 7, 1990. Amendment filed October 12, 1998; effective December 26, 1998.*

1200-4-9-.03 SATISFACTORY PROOF OF EXPERIENCE. Satisfactory proof of experience shall consist of either of the following methods.

(1) A list of ten (10) wells the applicant has constructed or worked on during a minimum of the last two years prior to the date of making the application for a license. The information shall include for each well the following:

(a) Name and address of the owner or owners of each well;

(b) Location and intended use of each well;

(c) Major construction features such as depth, type of casing, backfill, yield and water quality;

(d) Date of completion; and

(e) Work done by applicant and approximate customer cost.

(2) Copies of occupational licenses or certificates covering two years and indicating that the applicant has been engaged in the occupation for which a license is being sought.

Authority: *T.C.A. §§4-5-201 et seq., 69-11-106(1), and 69-11-107(d).* ***Administrative History:*** *Original rule filed February 21, 1990; effective April 7, 1990.*

1200-4-9-.04 APPLICATIONS.

(1) All applications for licensing shall be submitted to the Director on the form prescribed by the Board and provided by the office of the Director.

(2) An application will not be accepted for processing unless the application is complete, accompanied by the fee required by the Act, and signed by the applicant.

(3) No fee received with an application will be returned. This includes the fee received from an applicant who fails to pass an examination or meet the requirements of Rule 1200-4-9-.02 (1),(2) and (3).

(4) The individual who signs the application must meet the requirements of Rule 1200-4-9-.02 and 1200-4-9-.05 (1).

(5) Applicants who do not meet the requirements of Rule 1200-4-9-.02(1), (2) and (3) will be notified that their application has been denied and the reasons therefore.

(6) Any person whose application has been denied may request in writing to the Board within thirty (30) days of receipt of the letter of denial, an informal meeting with the Board for the purpose of explaining, or supplementing the application. Based on the person's explanation, the Board may accept the application for processing.

(Rule 1200-4-9-.04, continued)

(7) An applicant whose application has been denied may not file a new application for a period of thirty (30) days following the date of the letter of denial. A new application must be resubmitted with the required application fee.

Authority: *T.C.A. §§4-5-201 et seq., 69-11-106(1), and 69-11-107(d).* ***Administrative History:*** *Original rule filed February 21, 1990; effective April 7, 1990. Amendment filed October 12, 1998; effective December 26, 1998. Repeal and new rule filed December 1, 2004; effective February 14, 2005.*

1200-4-9-.05 EXAMINATIONS.

(1) All applicants who meet the requirements of rule 1200-4-9-.02 (1), (2) and (3) will be required to take a written examination and thereafter appear before the Board for an interview.

(2) Written examinations to be given to applicants shall be approved by the Board.

(3) Applicants admitted to the written examination will be required to take a general examination related to borehole construction standards and related subjects including basic ground water hydrology. Closed loop installer applicants are not required to take a general exam. All applicants will be required to take one or more specialty examinations designed to test the competence and ability of the applicant to perform the work of a driller or installer. The specialty examinations may include, but are not limited to, the following:

(a) For Driller applicants:

1. Cable tool drilling;

2. Air rotary drilling;

3. Mud rotary drilling;

4. Reverse Circulation;

5. Monitor well;

6. Geothermal well drilling for closed loop geothermal boreholes; and

7. Well closure and abandonment.

(b) For Installer applicants:

1. Pump installation for water wells;

2. Installation of water treatment devices; and

3. Closed loop installation for closed loop geothermal boreholes.

(4) Examinations shall be offered at least four times annually in a manner and at a time and place prescribed by the Director. Applicants will not be allowed to carry any reference materials into either the written examination room or oral interview area. Each examination shall be monitored by such person(s) as may be designated by the Director, or by one or more members of the Board. No persons, other than members of the Board, monitors, and examinees will be permitted in the room while the written examination is being administered.

(Rule 1200-4-9-.05, continued)

(5) The grade scored by each applicant on the written examination shall be posted in the space provided upon the examinee's application form. Each applicant will be notified of his or her grade scored on the examination by first-class mail, sent to the address appearing on the application.

(6) A minimum grade of seventy (70) percent on the general and seventy (70) percent on any other specialty exam category is required to pass the written exam, and be eligible for an interview with the Board. Individuals whose license or combination of licenses have been revoked, refused to renew or suspended must retake and pass all applicable exams.

(7) A person failing an examination may apply for reexamination the next time examinations are offered by the Department, but no sooner than thirty (30) days from the date of the previous examination.

(8) Interviews of applicants will be conducted before at least three members of the Board. Questioning by individual Board members to the quality and quantity of the applicant's experience will include, but not be limited to, the following:

(a) Where and when it was obtained;

(b) Types of equipment used;

(c) What was the applicant's level of responsibility;

(d) Familiarity of the applicant with addressing problems such as:

1. Construction techniques used in each type well drilled for each license applied for.

2. Operation of drilling equipment used in drilling wells or boreholes.

3. Installation techniques and principles of operation for pumps and or water treatment devices.

(e) Knowledge of State well construction standards; and

(f) Responsibilities of licensees to the well owner and the Department.

(9) Based on the applicant's answers to the questions in the interview, each Board member will vote for or against issuance of a license to the applicant. An applicant must receive a passing vote from a majority of the quorum present to be recommended for licensing.

(10) Applicants who pass both the written exam and interview with the Board will be recommended for licensing to the Commissioner.

(11) Holders of Tennessee Water Well Driller License who apply for a monitor or geothermal driller license before January 1, 2004, will not be required to appear for an oral interview provided they pass the required geothermal or monitor specialty exam.

(12) Experience as required in Rule 1200-4-9-.03 obtained in monitor well drilling or water well drilling by all applicants will satisfy the requirements of experience required for a geothermal well driller's license.

Authority: *T.C.A. §§4-5-201 et seq., 69-11-106(1), and 69-11-107(d).* ***Administrative History:*** *Original rule filed February 21, 1990; effective April 7, 1990. Amendment filed October 12, 1998; effective December 26, 1998. Repeal and new rule filed December 1, 2004; effective February 14, 2005.*

1200-4-9-.06 LICENSES.

(1) Issuance. An applicant recommended by the Board and approved by the Commissioner or the Commissioner's designee shall be issued a license to engage in the type of business for which he has applied and has demonstrated a satisfactory level of competency to perform. The Commissioner or the Commissioner's designee may issue a restrictive license, which may allow a license holder to operate under limited conditions such as well closure operations only.

(a) Driller applicants shall be issued either one or combination of four licenses:

1. A water well driller license to construct wells for the production of water, (W for water wells).

2. A geothermal well driller license to drill closed loop geothermal boreholes and install closed loops in closed loop geothermal boreholes, (G for geothermal).

3. A monitor well driller license to construct wells for monitoring ground water, (M for monitor).

4. A well closure license to close and abandon wells, (C for well closure and abandonment).

(b) Installer applicants shall be issued one or a combination of three licenses:

1. A license to install pumps on water wells, (P for pump installation on water wells).

2. A license to install closed loops or droplines for heat transfer in closed loop geothermal wells, (L for closed loop or dropline installation in closed loop geothermal boreholes).

3. A license to install water treatment on water wells, (T for Treatment on water wells).

(c) A wallet-sized card bearing the name of the licensee, type or class of license, expiration date, license number and signature of the Commissioner or the Commissioner's designee will be issued to the licensee and shall be carried on the person whenever engaged in the well or drilling contracting or installer business.

(d) All licenses issued pursuant to these rules shall be valid for a period not to exceed one year and shall expire on July 31 following the date of issuance.

(e) Reciprocity to drillers and installers licensed in other states will be granted by the Department provided the applicant makes a written request for reciprocity and the applicant meets the requirements of the written exam as required under Rule 1200-4-9-.05, (6), the applicant is currently licensed in the state for the same category and in good standing in that state and reciprocal privileges have been granted by that state to a licensee in Tennessee. An oral interview will not be required.

(f) A licensee shall not allow any individual to operate under his license unless the individual to be supervised by the licensee is employed by the licensee and holds an installer or rig operator card. Proof of employment must be on file with the Department prior to commencement by the employee of any activities requiring supervision. Proof of employment shall consist of a notarized Affidavit of Supervision.

(g) All persons licensed by the Department under these rules shall keep the Department advised of their current address and must readily accept all mail sent to them by the Department.

1. The Department shall be notified of any change of address, phone number, company name or addition of a company name within thirty (30) days of the change.

2. For purposes of these rules, registered or certified mail sent with proper postage to the licensee's last known address shall be considered adequate notification regardless of whether it is accepted or returned unclaimed.

3. Because of the Department's duty to supervise license holders and because written communication is a necessary aspect of such supervision, a licensee's refusal to accept mail or failure to claim registered or certified mail is a violation of these regulations and may result in enforcement action.

(h) All holders of licenses shall, when requested by the Director of the Division of Water Supply, give twenty-four (24) hour advance notice to the Division of Water Supply upon which any well construction or reconstruction for any part thereof, any well closure, well development or the installation of any pumping equipment or water treatment devices shall take place. This notification shall include the owner's name, address and location of the work site.

(i) In order to renew any license or combination of licenses, the licensee shall submit to the Commissioner satisfactory proof of the required credit hours of training approved by the Board of Ground Water Management or Director completed during the previous license year. Three (3) credit hours will be required to renew any license for the license period beginning August 1, 2004 and ending July 31, 2005. Five (5) credit hours will be required for all applicants who wish to renew a license or combination of licenses for all license years after July 31, 2005. First year license holders not previously licensed for any installer or driller category will not be required to obtain continuing education credits for their first year of renewal. Second and subsequent year license holders will be required to obtain continuing education credits thereafter to renew a license or combination of licenses.

(j) Approved training shall be designed to improve, advance or extend the licensee's professional skill and knowledge relating to the ground water industry such as well drilling, pump installation and water treatment courses. Training may consist of any of the following, provided there is satisfactory proof of completion acceptable to the Commissioner or Board:

1. Courses, seminars, workshops or lectures;

2. Extension studies and correspondence courses;

3. Papers published in professional journals and requiring peer review;

4. Lectures and scheduled courses at national or regional meetings of the National Ground Water Association, Tennessee Water Well Association or its successors;

5. College-level or postgraduate course work given by accredited college or university.

6. Assignment of Credit

(i) For courses for which continuing education units (CEUs) have been assigned, one CEU is equal to fifty minutes of instruction, that is approved by the Board;

(ii) Credits shall be approved on an hour for hour basis for attendance at an approved training program;

(iii) Credits are approved on a two for one hour basis for the instructor of an approved program;

(Rule 1200-4-9-.06, continued)

(iv) One credit hour is approved for attendance at the annual National Ground Water Association Convention or South Atlantic Jubilee;

(v) One credit hour is approved for attendance at a state association convention;

(vi) Credits are approved on a credit hour for credit hour basis for a course, seminar or workshop approved by the National Water Well Association for continuing education;

(vii) Credit hours may not be carried over to a new CEU cycle.

7. Procedures for Approval of Activities

(i) Activities submitted for approval shall be on a form provided by the Director and shall include the following information:

(I) Description of course or activity matter;

(II) Length of activities in hours;

(III) Name of instructor and qualifications;

(IV) Date, time and location.

(ii) A change in subject matter, length or instructor requires approval by the Director.

8. Proof of Continuing Education

(i) The licensee is responsible for the submission of proof of all approved training. Inability of the applicant to substantiate credit hours submitted is grounds for disallowance of the credits in question.

(ii) Proof of continuing education consists of:

(I) Official transcripts from educational institution;

(II) A certificate or other documentation signed by the instructor or sponsor of the training attesting to the satisfactory completion of the training;

(III) Other documentation determined by the Director in light of the nature of training, to establish that training was actually received by the applicant.

(iii) A licensee who fails to satisfactorily complete the required continuing education credits due to an unusual event such as an incapacitating illness or similar unavoidable circumstances may make a written request to the Board of Ground Water Management for an extension of time. The board may set conditions as deemed appropriate to renew a license. All requests by licensees for an extension of time must be made in writing with supporting documentation.

(2) Renewal. Before a license can be renewed, a license holder in good standing must file an application for renewal on a form made available by the Director and submit with the completed application the annual fee as specified in the Act and continuing education credits on or before July 31 of each year.

(Rule 1200-4-9-.06, continued)

(a) Upon approval by the Commissioner a renewal license will be issued for a period not to exceed one year and shall expire on July 31.

(b) A renewal certificate shall consist of a wallet-sized card in duplicate containing at least the name of the license, type or class of license, license number, expiration date and signature of the Commissioner or the Commissioner designee. One section of the card shall be kept with the original license certificate and the duplicate shall be carried by the licensee whenever engaged in the water well business

(c) If the application and fee for renewal of a licensee is not received by the Director by the date of expiration, that license cannot be renewed and the license holder must file a new application to obtain a valid license

(d) A duplicate license to replace any lost, destroyed or mutilated license will be issued by the Director upon receipt of written request from the licensee and a payment of fifteen dollars ($15.00) to cover the cost of reissuance.

(e) If a licensee's employees will at any time be in charge of well or borehole construction, or pump or water treatment installation, or closed loop installation in the absence of the licensee, he shall request the Director to issue a wallet-sized identification operator card for them. This card shall bear the name of the employee to whom it is being issued and the signature and license number of the licensee under whose supervision the work is being performed. The card shall be carried by the licensee's employee at all times at the work site.

(f) A decal shall be issued for identification purposes for each drilling rig, water truck, pump truck, and water treatment equipment vehicle used by a drilling contractor or installer. The decal shall be prominently displayed where it can be seen at all times from outside the vehicle.

(g) Decals furnished for drilling rigs and service vehicles are not transferable. The decals shall be removed and destroyed when a drilling rig or service vehicle is sold, traded or otherwise disposed of. A new decal for a newly acquired drilling rig or service vehicle will be provided without cost upon receipt of a written notice of acquisition of a different drilling rig or service vehicle.

(h) All drill rigs, water trucks, pump trucks, and water treatment equipment vehicles used by drillers and installers shall be permanently and prominently marked on the driver side door of the rig or vehicle for easy identification with the company name or name of the license holder. The letters shall be bold in print, on a background of contrasting color, and not less than two (2) inches in height. Portable magnetic signs will not be allowed unless the signs are permanently attached to the vehicle.

(i) If the application, renewal fee or requirements for continuing education are not received by the Director by the date of expiration, the license shall expire. Expired licenses may be reissued without examination or board appearance if the renewal fee and application are submitted within twelve (12) months of the date of expiration, all requirements for continuing education have been met and no additional monies are owed to the Department.

Authority: *T.C.A. §§4-5-201 et seq., 69-11-103(a)(2), 69-11-106(1), and 69-11-107(d).* ***Administrative History:*** *Original rule filed February 21, 1990; effective April 7, 1990. Amendment filed October 12, 1998; effective December 26, 1998. Repeal and new rule filed December 1, 2004; effective February 14, 2005.*

1200-4-9-.07 SUSPENSION AND REVOCATION.

(1) The Commissioner may suspend or revoke a license or operator card and/ or refuse to issue or renew a license or operator card if he finds that the applicant for, or holder of such license:

(a) Has intentionally made a material misstatement in the application for such license;

(b) Has willfully violated any provision of this chapter or any rule or regulation promulgated pursuant thereto;

(c) Has obtained or attempted to obtain, such license by fraud or misrepresentation;

(d) Has been guilty of fraudulent or dishonest practices;

(e) Has demonstrated a lack of competence as a driller of wells or as an installer;

(f) Has failed to comply with an order or assessment issued by the Commissioner; or

(g) Has been convicted of a felony.

(2) A holder of a license which has been revoked in accordance with this rule, after a waiting period of not less than one (1) year after the license was revoked, may petition the Commissioner for a hearing for reinstatement of his license.

(3) Upon suspension, revocation or non-renewal of a license or combination of licenses, the Commissioner may with advice from the Board, impose such terms and conditions as in his judgment shall be considered just.

(4) Any person whose license is suspended, revoked or non-renewed shall not perform the duties of a well driller or installer in the State of Tennessee, or work under the supervision of a licensed driller or installer.

Authority: *T.C.A. §§4-5-201 et seq. and 69-11-105.* ***Administrative History:*** *Original rule filed February 21, 1990; effective April 7, 1990. Repeal and new rule filed December 1, 2004; effective February 14, 2005.*

1200-4-9-.08 ROLE OF COMPLAINTS IN ENFORCEMENT DECISIONS RELATED TO LICENSEES.

(1) In making determinations as to whether to issue an order for corrective action, a penalty assessment, or a license revocation, the Commissioner may utilize information obtained from complaints by any persons.

(2) The Board may utilize its expertise to evaluate any complaints received from the public. The Board may then make a recommendation to the Commissioner as to what enforcement options are appropriate.

(3) In reaching these conclusions about enforcement action, the Commissioner and the Board may, in addition to any other investigation conducted by the Division, interview both the complainant and the licensee who is the subject of the complaint.

(4) If a licensee takes action to correct any violation of the Act or rules that is the subject of a complaint, such action and the degree of the effectiveness of the action are factors to be considered by the Commissioner and the Board in their decisions regarding appropriate enforcement action.

Authority: *T.C.A. §§4-5-201 et seq., 69-11-106(2), (3), and (4), and 69-11-107(a) and (d).* ***Administrative History:*** *Original rule filed February 21, 1990; effective April 7, 1990.*

1200-4-9-.09 APPEALS.

Any person whose application is denied for any reason may request a review of the denial in accordance with the provisions of the Uniform Administrative Procedures Act (T.C.A. Section 4-5-101 et seq.) by filing that request with the Commissioner within thirty (30) days of receipt of the denial.

Authority: *T.C.A. §§4-5-201 et seq. and 69-11-110(j).* ***Administrative History:*** *Original rule filed February 21, 1990; effective April 7, 1990.*

1200-4-9-.10 WELL CONSTRUCTION STANDARDS.

These rules will apply solely to wells constructed for the production of water from underground sources and have no application to wells constructed for quarry blast holes or mineral prospecting, or any purpose other than production of water.

(1) Requirements

(a) No person shall construct, reconstruct, or repair, or cause to be constructed or reconstructed or repaired any water well; nor shall any person install, repair, or cause to be installed or repaired any pump, pumping equipment, water filter or water treatment device to be used on a water well except in accordance with the provisions of the Wells Act (T.C.A. 69-11-101 et seq.) and these rules.

(b) Every well driller, within sixty (60) days after completion of a water well, shall submit a report on the construction or reconstruction of the well to the Department. The well completion report shall be made on a form provided by the Department or a reasonable facsimile approved by the Department.

(c) A Notice of Intent to drill a water well must be submitted by the property owner or the licensed well driller to the Director in the manner prescribed by the Department, prior to commencement of drilling a water well in Tennessee. The licensed driller is required to have sufficient documentation that a Notice of Intent was submitted to the Division of Water Supply before beginning operations at a drill site. Sufficient documentation for a Notice of Intent being filed may include one of the following:

1. Fee receipt of the Notice of Intent.

2. Confirmation number of the Notice of Intent or other approved format approved by the Director and issued by the Department.

(d) The Notice of Intent fee or copy of the receipt for a Notice of Intent fee shall accompany the submission of the driller's report. No well or borehole shall be drilled unless the driller has documentation that a Notice of Intent has been filed. All well reports shall be submitted with documentation of the Notice of Intent fee being paid. Documentation of the fee being paid shall consist of the receipt originating from a Notice of Intent or money collected and enclosed with the original driller's report by the driller for the Notice of Intent. A Notice of Intent and fee is not required for well closure, deepening or reworking any water well or closed loop geothermal borehole. The amount of the Notice of Intent fee shall be reviewed by the Department at least every five (5) years and shall currently be scheduled as follows:

1. Water wells for production of water per property site $75.00

(e) The requirement to furnish the Department a Notice of Intent fee payment shall not apply to water wells drilled in any local jurisdiction which is authorized, by private act or pursuant to the provisions of an adopted "home rule" charter, to regulate the location and construction of these

wells and which has established a fee for the inspection of both geothermal and water wells approved by the Commissioner.

(f) A Notice of Intent fee shall not apply to any property owner, who within the past five years has filed a notice of intent and paid the fee for the same property. The property owner or driller must identify on the new Notice of Intent submitted for the property the identification number from the first Notice of Intent fee submitted.

(g) Checks returned for insufficient funds will be charged an established check processing fee and the Division will seek payment from the individual responsible for writing the check.

(h) A Notice of Intent shall expire one hundred and eighty days from the original date filed by the well driller or homeowner.

(i) When strict compliance with these standards is impractical, the driller or installer shall make application to the Department for approval of an alternative standard prior to the work being done. The Department may grant the request for an alternative standard if it determines the proposed standards offer an equivalent or higher level of protection to the environment. In an emergency or in exceptional instances, the Department will respond to a verbal request provided the applicant submits a written application within ten (10) days of the verbal application.

(j) Every well driller or person holding a well closure license, within sixty (60) days of abandonment of a water well, shall submit a report of the abandonment of the well or borehole to the Department. The abandonment report shall be made on a form provided by the Department or a reasonable facsimile approved by the Department. The report shall include the same information as required on the completion report and shall include specific information on how the well was closed and the placement and type of backfill placed in the well bore. The abandonment report shall be signed by the licensed driller or person holding a well closure license. All well closure reports shall include a diagram showing the location and distance in feet of the closed well from one specific landmark and septic system or sewer systems on the property.

(2) Location

(a) The construction of a water well is prohibited at other than a safe distance from any known potential source of contamination. The minimum safe distances shown in Table A shall apply for the sources of contamination listed therein:

(b) A water supply well may be constructed in an area subject to flooding provided the top of the water tight casing extends not less than two (2) feet above the one hundred (100) year flood plain.

(c) Relation to buildings, pits, and basements:

1. A well located adjacent to a building shall be so located that the center line of the well extended vertically will clear any projection from the building by not less than five (5) feet.

2. New wells shall not be constructed in pits or basements.

(d) New wells shall not be located closer than ten (10) feet from a property line. New wells located from ten (10) feet to twenty-five (25) feet from a property line shall require a minimum of thirty-five (35) feet of casing installed below land surface with impervious material such as

cement grout or bentonite chips, tablets or bentonite grout backfilled in the annular space to a depth of thirty-five feet.

TABLE A

MINIMUM DISTANCES TO SEPARATE WATER WELLS FROM POTENTIAL SOURCES OF CONTAMINATION

SOURCES OF CONTAMINATION	MINIMUM DISTANCES
Animal pens or feed lots	100 feet
Leaching Pits; sewage lagoons	200 feet
Pit Privys	75 feet
Sewer lines	50 feet
Sludge and septage disposal sites	100 feet
Septic tanks and drain fields	50 feet
House to septic tank connections, if the line is tight	10 feet

(3) Source of Water Supply

(a) The source of water for any well shall be at least nineteen (19) feet below the surface of the ground.

1. In the event that no other ground water source is available, a source of less than nineteen (19) feet deep may be developed provided that:

(i) Prior to the installation of the casing in the well, the Division of Water Supply Central Office is notified by phone regarding:

(I) County and street address of the well

(II) Name and phone number of the well owner

(III) Street address of owner if different from address of the well

(ii) A minimum of ten (10) feet of casing is installed below ground surface.

(iii) The well is sealed from land surface to a minimum ten (10) feet below ground with either cement grout or bentonite.

(iv) The owner of the well is advised by the driller concerning the development of a water bearing zone less than nineteen (19) feet deep by sending a written report to the homeowner and to the Division, at the time the completion report is submitted, containing the following advisory:

(I) The owner may need to place a chlorinator on the well to treat the water for potential problems with microbiological contamination.

(II) A shallow water bearing zone may be more subject to surface contamination surrounding the well and the well yield may diminish over time.

(III) The homeowner should provide a copy of the report and disclaimer to any prospective buyer prior to any resale of the property where the well is located.

(b) The driller shall develop the most favorable water-bearing zone(s) and seal off any source(s) of less desirable quality.

(c) It shall be the duty of any person attempting to construct a water well to seal off salt water, oil, gas, or any other fluid or material which might contaminate a source of fresh water.

(4) Drilling Fluids for Water Wells

(a) Water used during the construction of a water well shall be obtained from a public water supply, water well or protected spring box. Water taken from ponds, lakes, streams or other surface sources shall not be used.

(b) All water used shall also be treated with enough liquid bleach or hypochlorite granules to retain a free chlorine residual of at least two (2) parts per million.

(c) The driller shall denote on the water well report submitted to the Department from what source his drilling process water was obtained.

(d) Drilling fluids and additives shall be materials specified by the manufacturer for use in water well construction and approved by the Department.

(e) During the course of drilling a water well with air rotary equipment, a minimum of one (1) gallon of water per minute must be injected or added into the air stream. The amount of water injected shall be sufficient to control dust and to keep the hole cleaned out.

(f) The amount of rock drill oil used to lubricate down hole drilling hammers shall not exceed hammer manufacturer's recommendations. The oil used to lubricate the hammer shall be specifically designed for that purpose.

(g) Petroleum based products or byproducts spilled or leaked from a drill rig or pump truck in any quantity greater than one (1) quart shall be removed from the area within a twenty-five (25) foot radius around the well by the driller or installer responsible for the spill before the drill rig or pump truck leaves the site.

(5) Casing

(a) Wells drilled for the production of water shall be cased with watertight casing extending from at least nineteen (19) feet below the land surface to a minimum of six (6) inches above land surface. For wells located in areas subject to flooding, see rule 1200-4-9-.10(2)(b). For water sources less than nineteen (19) feet deep see Rule 1200-4-9-.10 (3) (a).

1. The watertight casing in wells constructed to obtain water from a consolidated rock formation shall be firmly seated and sealed below all crevices that release inferior quality water or mud into the well or to a depth of at least five (5) feet below the top of the consolidated rock whichever is greater.

2. The watertight casing in wells constructed to produce water from an unconsolidated aquifer (such as saturated gravel or sand) shall extend at least to the top of the aquifer or to a depth of 19 feet which ever is greater.

(Rule 1200-4-9-.10, continued)

(b) Except as otherwise specified in these regulations, the permanent well casing shall:

1. Casing shall be new or in like new condition. Such casing or pipe shall not be used unless free of leaks, corrosion, and dents; is straight and true, and not out of round, seamless or welded, black or galvanized steel pipe conforming to the weights and dimensions given in Table B and meeting the American Society for Testing and Materials (ASTM) Standards A53-87b or A589-85. Reject pipe shall not be used;

2. Have watertight joints that may be welded, or threaded and coupled; and

3. Be equipped with a drive shoe if the casing is to be driven.

4. Pipe sizes that are not listed in Table B and are less than ten (10) inches in diameter shall match listed values as closely as possible.

5. Pipe sizes that are ten (10) inches in diameter or larger shall be Schedule 20 pipe as a minimum.

TABLE B

MINIMUM DIMENSIONS AND WEIGHTS FOR WATER WELL CASING

Diameters in inches		Minimum Wall Thickness	Weight in Pounds per Foot
External	Internal	in Inches	Plain Ends Only
3.500	3.250	0.125	4.51
4.000	3.732	0.134	5.53
4.500	4.216	0.142	6.61
5.500	5.192	0.154	8.79
6.000	5.672	0.164	10.22
6.625	6.255	0.185	12.72
8.625	8.249	0.188	16.90

(c) Thermoplastic well casing may be installed in wells constructed to obtain water from unconsolidated aquifers (such as saturated gravel, sand or overburden) provided:

1. The casing is new;

2. The casting meets or exceeds the requirements of ASTM Standard F-480-88 and bears the NSF (National Sanitation Foundation) seal in each section of casing;

3. The Standard Dimension Ratio (SDR) shall not exceed 26;

4. The casing is installed after the borehole has been drilled to the final depth of the finished well, and no additional drilling takes place after the casing has been installed; and

5. Joints shall be solvent cemented with a quick-setting cement, or threaded and coupled.

(d) In areas where the water is obtained from overburden above the consolidated rock surface, the casing shall be set at or just above the consolidated rock. A screen may be attached to the bottom of the casing or the lowermost few feet of the casing may be slotted or perforated to allow water to enter the well provided the top of the screen or the topmost perforation in the

casing is at least 20 feet below land surface. The completed well shall be finished so that extraneous material such as sediment cannot enter the well.

(e) Water well casing shall extend a minimum of six inches above the finished land surface unless, site conditions dictate that the well head will be better protected below ground surface and the upper terminus is constructed in the following manner:

1. The casing is terminated just below ground surface in a watertight manhole cover.

2. The manhole cover lid and skirt shall be all cast steel or aluminum construction.

3. The manhole cover shall have a sufficient diameter to use a well cap below the manhole lid.

4. The manhole shall be secured by a concrete pad two inches thick and no less than 24 inches in diameter.

5. The manhole cover shall be equipped with a positive drain to an area where water cannot enter from flooding or where excessive runoff could back up through the drain to the well head. The drain may be located in the basement area of a house.

6. The manhole cover shall be clearly marked on the cover as a "water well".

7. Construction techniques for casings cut off below ground level shall conform to the drawing in figure 1.

BELOW GROUND SURFACE WELL HEAD CONSTRUCTION

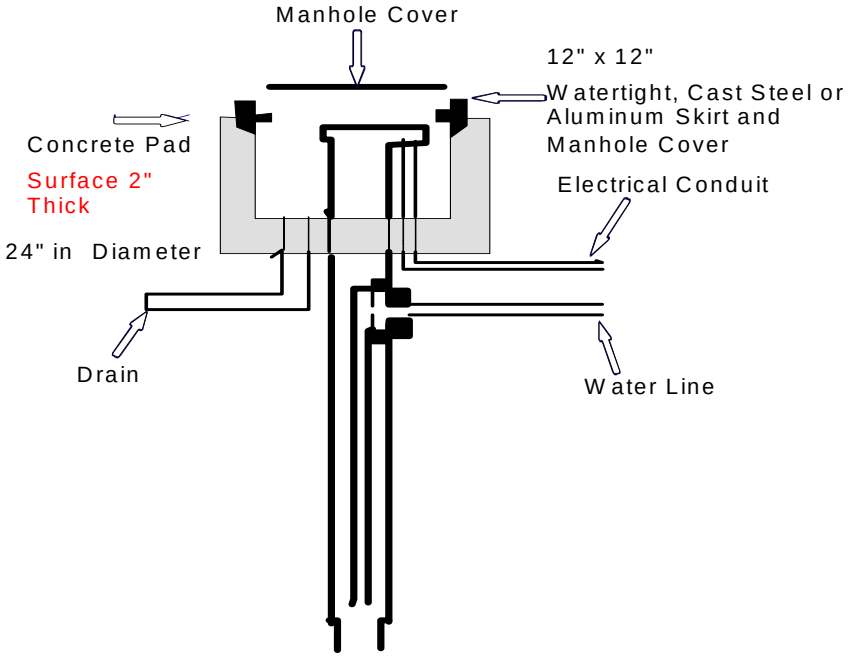

Figure 1

(f) The upper terminus of the well head shall be capped with a watertight well seal or cap specifically designed for capping the well.

(6) Backfilling and Grouting

(a) The grout material used in the backfilling or grouting of a water well shall consist of a mixture of Portland Class A cement or quick setting cement in a ratio of not over six (6.0) gallons of water per ninety-four (94) pound sack of cement, or a high solids mixing bentonite grout with a minimum of 20% solids and a weight of no less than nine and two tenths (9.2) pounds per gallon as measured by a standard mud balance. The use of bentonite, in chip or tablet form, ranging in size from one-quarter inch (1/4) to three-quarters of an inch (3/4) will be allowed as an alternate seal to slurry grouting. The bentonite shall be mixed and applied in accordance with the manufacturer's recommendations. The use of low solids bentonite drilling clay designed for use as a drilling fluid to form a filter cake on the side walls of the borehole and to increase viscosity of water) is prohibited for use as a grout or sealing material except as an additive. Only bentonite grout, bentonite tablets, or bentonite chips approved by the National Sanitation Foundation (NSF) or American National Standards Institute (ANSI) certified parties as meeting NSF product standard 60 or 61 shall be approved by the Department as appropriate grouting or sealing material.

(b) For wells completed with either steel or plastic well casing, the annular space between the casing and borehole wall of the well from a depth of three (3) feet to ten (10) feet below land surface shall be backfilled with an impervious material of either cement grout or bentonite as defined in Rule 1200-4-9-.10 (6) (a) . The remaining annular space between the casing and borehole wall shall be backfilled with an impervious material or combination of materials such as cement, bentonite, sand, puddled clay or well cuttings. However, the department recommends that the remaining annular space between the casing and the borehole wall of the well to the bottom of the watertight casing, be filled with the same grout or sealing material used from three to ten feet.

(c) Placement of the backfill material shall be done in such a way that there are no bridges or gaps in the annulus. The top of the backfill material shall remain level with the land surface surrounding the well.

(d) If bentonite is used for backfill, it shall be placed in accordance with the manufacturer's recommendations. For example, the product "Holeplug" from Baroid requires the annular space in a well to be one and one half inches (1-1/2") in clearance or more when "Holeplug" three fourths inch (3/4") is used. The annular space must be a minimum of three fourths inch (3/4") in clearance in the event that "Holeplug" three eighths inch (3/8") bentonite is used.

(e) If cement based grout or bentonite based grout is used for backfill, it shall be placed around the casing by one of the following methods:

1. Pressure

The annular space between the casing and the borehole wall shall be a minimum of one and five-tenths (1.5) inches, and grout shall be pumped or forced under pressure through the bottom of the casing until it fills the annular space around the casing and overflows at the surface; or

2. Pumping

The annular space between the casing and formation shall be a minimum of one and five tenths (1.5) inches and grout shall be pumped into place through a pipe or hose extended

to the bottom of the annular space which can be raised as the grout is applied, but the grout pipe or hose shall remain submerged in grout during the entire application; or

3. Other

The annular space between the casing and the borehole wall shall be a minimum of two (2) inches and the annular space shall be completely filled with grout by any method that will insure complete filling of the space, provided the annular area does not contain water or other fluid. If the annular area contains water or other fluid, it shall be evacuated of fluid or the grout shall be placed by the pumping or pressure method.

(7) Well Screens

(a) Any water well finished in an unconsolidated rock formation shall be equipped with a screen or perforated pipe that will adequately prevent the entrance of soil or formation material into the well after the well has been developed and completed by the well contractor.

(b) The well screen shall:

1. Be of steel, stainless steel, plastic or other Department approved material and shall be of a strength to satisfactorily withstand chemical and physical forces applied to it during and after installation;

2. Be of a design to permit optimum development of the aquifer with minimum head loss consistent with the intended use of the well;

3. Have openings designed to prevent clogging and shall be free of rough edges, irregularities or other defects that may accelerate or contribute to corrosion or clogging; and

4. Be provided with such fittings as are necessary to seal the top of the screen to the watertight casing and to close the bottom. If the screen is installed through the casing, a packer, seal or other approved design shall be used to prevent the entry of ground water into the well through any openings other than the screen.

(c) Multi-screened wells shall not connect aquifers or zones which have differences in:

1. Water quality to the extent that intermixing of the waters would result in deterioration of the water quality in any aquifer or zone.

2. Static water levels that would result in depletion of water from any aquifer or zone, or significant loss of head in any aquifer or zone.

(8) Gravel-Packed Wells

(a) In constructing a gravel-packed well:

1. The gravel shall be composed of quartz, granite, or similar rock material and shall be clean, rounded, uniform, water-washed and free from clay, silt, or other deleterious material.

2. The gravel shall be placed in the annular space around the screens and casing by any method that will insure accurate placement and avoid bridging or segregation.

3. The gravel pack shall have a minimum thickness of at least one-inch and shall be placed a minimum of nineteen feet below land surface.

4. The gravel shall be disinfected using water with a free chlorine residual of at least 50 parts per million (ppm).

(b) The gravel pack shall not connect aquifers or zones which have differences:

1. In water quality that would result in deterioration of the water quality in any aquifer or zone.

2. In static water levels that would result in depletion of water from any aquifer or significant loss of head in any aquifer or zone.

(9) Large Diameter Wells

(a) Large-diameter bored or augered wells may be cased with concrete pipe provided such wells are constructed as follows:

1. The bore hole shall have a minimum diameter of six (6) inches larger than the outside diameter of the casing.

2. The annular space around the casing shall be filled with grout to a depth at least five feet below the static water level or twenty (20) feet below land surface, whichever is greater. The grout shall be placed in accordance with the requirements of rule 1200-4-9-.10(6)(d).

3. The annular space around the casing below the grout shall be completely filled with sand or gravel that has been disinfected with water containing a free-chlorine residual of at least 50 parts per million (ppm).

4. The sand or gravel material shall be composed of quartz, granite, or similar rock material and shall be clean, rounded, uniform, water-washed and free from clay, silt, or other deleterious material.

(b) The wellhead shall be completed in the same manner as required for other water-supply wells.

(10) Well Development. Prior to completion of a well for water supply, the driller shall take all steps necessary to:

(a) Remove any mud, drill cuttings, or other foreign matter from the well that would render the well useless for its intended purpose;

(b) Correct any damage to the aquifer that might have occurred during drilling; and

(c) Disinfect the well.

(d) Fracturing as an aid in water well development:

1. Fracturing includes the use of explosives, acid or pumping fluids or air into water well in an attempt to increase the yield of the well. General water well disinfection procedure with chlorine is not considered fracturing. A licensed driller shall supervise fracturing and submit a rework report for each site.

(Rule 1200-4-9-.10, continued)

2. Water used in fracturing must be obtained from a public water supply, water well or protected springbox and chlorinated a minimum of two (2) parts per million chlorine residual prior to injection.

3. Wells located closer than fifty (50) feet from known sources of pollution shall not be fractured. Known sources of pollution include but are not limited to septic tanks field lines and sewers.

4. All packers set in a zone to be fractured by fluid or air must be placed at depths greater than fifty feet below land surface or a depth greater than twenty feet below the bottom of water tight casing, or whichever is greater in depth from land surface.

5. The driller shall submit a report of driller within sixty (60) days upon completion of fracturing the well reworking the well, and denote in the comments section the zone fractured, water used and amount of pressure induced on each zone.

(11) Wellhead Completion

(a) The top of the casing shall be cut off smooth and level, be free from dents and cracks, and shall terminate at least six (6) inches above the land surface. All wells shall be capped with an approved well cap.

(b) Underground installations leading from the well shall employ a pitless adapter which does not require welding at the casing. Pitless units or adapters shall comply with the Water Systems Council's Pitless Adapter Division (PAD) PAS-1 (6th Ed., March 1987) and shall bear the PAD symbol of certification or shall otherwise have been approved by the Department.

(c) Pitless units or adapters shall be constructed and installed so as to prevent the entrance of contaminants into the well or potable water supply, conduct water from the well, protect the water from freezing, and provide access to water system parts within the well.

(d) Surface drainage shall be diverted away from the well head so that water is not allowed to stand around the casing.

Authority: *T.C.A. §§4-5-201 et. seq. and 69-11-106.* ***Administrative History:*** *Original rule filed June 21, 1993; effective August 5, 1993. Amendment filed October 12, 1998; effective December 26, 1998. Amendments filed December 1, 2004; effective February 14, 2005.*

1200-4-9-.11 INSTALLATION OF PUMPS, FILTERS, AND WATER TREATMENT UNITS. Primary responsibility for compliance with the provisions set forth herein for the installation of water well pumps, filters and water treatment units rests with the installer of these devices.

(1) The capacity of the pump shall be consistent with the intended use and yield characteristics of the well.

(2) The pump and related equipment for the well shall be conveniently located to permit easy access and removal for repair and maintenance.

(3) The base plate of a pump placed directly over the well shall be designed to form a watertight seal with the well casing or pump foundation.

(4) In installations where the pump is not located directly over the well, the annular space between the casing and pump intake or discharge piping shall be closed with a watertight seal designed specifically for this purpose.

(Rule 1200-4-9-.11, continued)

(5) The well shall be properly vented at the wellhead to allow for pressure changes within the well. The vent shall be screened to prevent entry of insects.

(6) Any suction line installed underground between the well and pump shall be surrounded by six (6) inches of impervious material such as cement, or encased in a larger pipe that is sealed at each end.

(7) All conduits, valves and other plumbing fixtures used to convey water from a water-supply well to any building or other outlet shall be installed in accordance with manufacturer's requirements.

(8) All pressure tanks shall be installed above ground unless the tank is specifically designated by the manufacturer for below ground burial.

(9) The electrical wiring and equipment used in connection with the installation of a water well pump shall:

(a) Meet underwriters specifications;

(b) Be installed in accordance with the National Electrical Code or local codes and ordinances if the latter are more restrictive;

(c) Be equipped with a fused or circuit breaker disconnect switch.

(d) Be served by an entirely separate circuit from other equipment.

(10) Water filters and water treatment units shall be installed and serviced to accommodate water quality problems as determined by physical, chemical or bacteriological evaluation or field test; and the function of the equipment shall achieve the results specified by the manufacturer. In servicing and installing treatment units the sanitation of the water supply shall be protected.

Authority: *T.C.A. §§4-5-201 et. seq. and 69-11-106.* ***Administrative History:*** *Original rule filed June 21, 1993; effective August 5, 1993.*

1200-4-9-.12 DISINFECTION OF WATER SUPPLY WELLS.

(1) All water wells shall be disinfected upon completion of construction, reworking, pump installation or repairs as follows:

(a) A chlorine solution shall be placed in the well in sufficient dosage to produce a chlorine residual of at least one hundred (100) parts per million (ppm) in the water standing in the well (see Tables C and D for the correct amount). A chlorine solution may be prepared by dissolving dry hypochlorite granules (trade names include HTH, Chlor-Tabs, etc.) in water or by liquid bleach (trade names include Clorox, Purex, etc). (CAUTION: When working with chlorine, persons should be in a well ventilated place. The powder or strong liquid should not come in contact with skin or clothing. Solutions are best handled in wood, plastic or crockery containers because metals are corroded by strong chlorine solutions).

(Rule 1200-4-9-.12, continued)

TABLE C

QUANTITY OF DISINFECTANT REQUIRED TO PRODUCE A FREE CHLORINE RESIDUAL OF 100 PARTS PER MILLION (PPM) IN DRILLED WELLS.

Feet of Water	Liquid Bleach (Clorox, Purex, etc.) (5.25 % Chlorine)			Dry Granules (HTH, Clor-Tabs, etc.) (70% Chlorine)			Feet of Water
	Well Diameter			Well Diameter			
	4-inch	6-inch	8-inch	4-inch	6-inch	8-inch	
10	1/4 cup	1/2 cup	1 cup	1 tab.	2 tabs.	1/2 oz.	10
20	1/2 cup	1 cup	1 pt.	2 tabs.	4 tabs.	1 oz.	20
30	3/4 cup	1 1/2 cups	1 1/2 pts.	3 tabs.	1 oz.	1 1/2 oz.	30
40	1 cup	1 pt.	1 3/4 pts.	4 tabs.	1 1/4 ozs.	2 ozs.	40
50	1 1/4 cups	1 1/4 pts.	1 qt.	5 tabs.	1 1/2 ozs	2 1/2 ozs	50
60	1 1/3 cups	1 1/2 pts.	1 1/4 qts.	6 tabs.	1 3/4 ozs.	3 ozs.	60
70	1 1/2 cups	1 3/4 pts.	1 1/2 qts.	1 oz.	2 ozs.	3 1/2 ozs.	70
80	1 3/4 cups	1 qt.	1 3/4 qts.	1 oz.	2 1/4 ozs.	4 ozs.	80
90	1 pt.	1 1/4 qts.	2 qts.	1 1/4 ozs.	2 1/2 oz.	4 1/2 ozs.	90
100	1 1/4 pt.	1 1/4 qts.	2 1/4 qts.	1 1/4 ozs.	3 ozs	5 ozs.	100
120	1 1/3 pts.	1 1/2 qts.	2 1/2 qts.	1 1/2 ozs.	3 1/2 ozs.	6 ozs.	120
140	1 1/2 pts.	1 3/4 qts.	3 qts.	1 3/4 ozs.	4 ozs.	7 ozs.	140
160	1 3/4 pts.	2 qts.	3 1/2 qts.	2 ozs.	4 1/2 ozs.	1/2 lbs.	160
180	1 qt.	2 1/4 qts.	1 gal.	2 1/4 ozs.	5 ozs.	2/3 lbs.	180
200	1 1/4 qts.	2 1/2 qts.	1 1/4 gal.	2 1/2 ozs.	6 ozs.	3/4 lbs.	200
250	1 1/2 qts.	3 qts.	1 1/2 gals.	3 1/4 ozs.	1/2 lb.	1 lbs.	250
300	2 qts.	1 gal.	1 3/4 gals.	5 ozs.	2/3 lb.	1 lbs.	300
400	2 1/2 qts.	1 1/4 gal.	2 1/4 gals.	6 1/4 ozs.	3/4 lbs.	1 1/2 lbs.	400
500	2 3/4 qts.	1 1/2 gal.	2 3/4 gals.		1 lbs.	2 lbs.	500

Measures:
2 cups = 1 pint (pt)
2 pints = 1 quart (qt)
4 quarts = 1 gallon (gal)
7 tablets = 1 ounce (oz)
8 ounces = 1/2 pound (lb)
16 ounces = 1 pound (lb)

Equations for calculating amount of disinfectant required to chlorinate drilled wells with diameters larger than 8 inches:

Pints of liquid bleach = $D^2 h \div 10$

Ounces of dry granules = $D^2 h \div 9$

where: D = Diameter of well in feet
h = height of water above bottom of well in feet.

(Rule 1200-4-9-.12, continued)

TABLE D

QUANTITY OF DISINFECTANT NEEDED TO PRODUCE A FREE CHLORINE RESIDUAL OF 100 PARTS PER MILLION (PPM) IN DUG OR BORED WELLS

Feet of Water	Liquid Bleach (5.25% Chlorine) Well Diameter in feet				Dry granules (70% chlorine) Well Diameter in feet			
	2 ½	3	4	5	2 1/2	3	4	5
1	1 1/4 cups	1 pt	1 Qt	1 1/4 qts	5 tabs	1 oz	2 ozs	3 ozs
2	1 1/4 qts	1 qt	1 1/2 qts	2 1/2 qts	1 1/2 ozs	2 ozs	4 ozs	6 ozs
3	1 qt	1 1/2 qts	2 1/4 qts	3 1/2 qts	2 1/4 ozs	3 ozs	6 ozs	9 ozs
4	1 1/4 qts	2 qts	3 qts	5 qts	3 ozs	4 ozs	1/2 lb	3/4 lb
5	1 1/2 qts	2 1/4 qts	4 qts	1 1/2 gals	4 ozs	5 ozs	3/4 lb	1 lb
10	3 qts	1 1/4 gals	2 gals	3 gals	7 ozs	1/2 lb	1 1/2 lbs	2 lbs
15	1 gal	1 3/4 gals	3 gals	4 1/2 gals	3/4 lb	1 lb	2 lb	3 lbs
20	1 1/2 gals	2 1/4 gals	4 gals	6 gals	1 lb	1 1/2 lbs	2 1/2 lbs	3 1/2 lbs

Equations for calculating amounts of chlorine needed to disinfect dug or bored wells.

Pints of liquid bleach $= D^2h) 10$

Ounces of dry granules $= D^2h) 9$

where: D = diameter of well in feet
h = height of water above bottom of well in feet.

(b) Place the required amount of liquid bleach or dry granules in the well by one of the following methods:

1. Dry granules or tablets may be dropped in the top of the well and allowed to settle to the bottom; or

2. Liquid bleach may be mixed with water and poured in the top of the well and allowed to settle to the bottom.

(c) Agitate the water in the well to insure thorough dispersion of the chlorine throughout the entire length of the well.

(d) The well casing, pump column and any other equipment above the water level in the well, shall be thoroughly rinsed with the chlorine solution as a part of the disinfecting process.

(e) The chlorine treated water shall stand in the well for a period not less than twelve (12) hours. The well shall, thereafter, be pumped until the odor of the chlorine is no longer detectable.

Authority: *T.C.A. §§4-5-201 et. seq. and 69-11-106.* ***Administrative History:*** *Original rule filed June 21, 1993; effective August 5, 1993.*

1200-4-9-.13 REPAIR OF WATER WELLS.

(1) All materials used in the replacement or repair of any water well shall meet the requirements for a new installation.

(2) Plastic pipe approved by the National Sanitation Foundation (NSF) and rated at 160 psi (SDR = 26) may be used for liner casing. The liner casing shall be installed with centering guides to insure proper centering in the well and the annular space around the liner casing shall be completely sealed at both ends to repel the inflow of extraneous material from the lined interval.

(3) Repairs to wells completed with the top of the well casing terminating below ground shall include extending the well casing above land surface in accordance with rule 1200-4-9-.10(5)(a).

Authority: *T.C.A. §§4-5-201 et. seq. and 69-11-106.* ***Administrative History:*** *Original rule filed June 21, 1993; effective August 5, 1993.*

1200-4-9-.14 WELL REGISTRATION - IDENTIFICATION.

(1) Each water well constructed or reconstructed shall be equipped before the drill rig leaves the site with an identification tag or decal bearing a registration number. The tag and registration number shall be supplied by the Department.

(2) The identification tag or decal shall be securely attached to the well casing or other appurtenance where it is readily visible.

(3) The identification tag or decal shall not be removed from the well unless otherwise approved by the Department.

(4) The registration number shall be recorded on the well completion report to be submitted by the driller to the Department.

Authority: *T.C.A. §§4-5-201 et. seq. and 69-11-106.* ***Administrative History:*** *Original rule filed June 21, 1993; effective August 5, 1993. Amendment filed October 12, 1998; effective December 26, 1998.*

1200-4-9-.15 DATA AND RECORDS REQUIRED.

(1) A “Report of Well Driller” (well completion report) shall be submitted to the Department on a form provided or approved by the Department within sixty (60) days after completion of the drilling, construction, reconstruction or closure of each water well.

(2) The report shall be true and accurate. The report shall include as a minimum the following accurate information about the well. Footage shall be accurate to the nearest foot of measurement:

(a) Name and address of the person for whom the well was drilled;

(b) The location of the well as denoted by county, street address and road name;

(c) The location of the well as denoted by driller map number coordinate or latitude and longitude of the well;

(d) Proposed use of the well;

(e) The date completed for each well;

(f) The “log” of the well;

(Rule 1200-4-9-.15, continued)

(g) The depth, diameter and general specifications for the well including;

1. Casing lengths used, type, diameter, wall thickness or SDR rating;

2. Liners used, location, type, diameter, wall thickness or SDR rating;

3. Bottom depth of casing, and depth of screen or slotted pipe;

4. Type backfill material used and location of backfill, and location of packers;

5. Static water level, depth to bedrock, (if encountered) for bedrock wells only;

6. Water bearing zones encountered in excess of one gallon per minute for bedrock wells only;

7. General water quality.

(h) Licensed driller's name and Tennessee license number;

(i) The well driller tag number and Notice of Intent Number;

(j) Information on well head completion, i.e. well cap, well disinfection, information supplied by the homeowner to the driller or confirmation by the driller that the septic tank and field lines are located fifty (50) feet or greater from the water well.

(3) The original report shall be signed by the licensee and submitted to the Director. The licensed driller shall maintain a copy of each report and fee payment submitted for five (5) years.

Authority: *T.C.A. §§4-5-201 et. seq. and 69-11-106.* ***Administrative History:*** *Original rule filed June 21, 1993; effective August 5, 1993. Amendment filed October 12, 1998; effective December 26, 1998. Repeal and new rule filed December 1, 2004; effective February 14, 2005.*

1200-4-9-.16 WELL ABANDONMENT.

(1) The driller or person holding a license for well closure shall backfill and close any newly drilled water well not intended for use in which casing has not been installed or from which casing has been removed, within fifteen (15) days after the drill rig leaves the site. The driller shall take all steps necessary to maintain safety around the site until the closure process is completed. Prior to closing any such well, the driller shall:

(a) Remove all equipment or material that may obstruct access to the bottom of the well;

(b) Check the entire depth of the well for obstructions that may interfere with sealing operations and remove them, and

(c) Thoroughly chlorinate the well prior to sealing by the addition of sufficient quantities of liquid bleach or dry hypochlorite granules to produce a free chlorine residual of twenty-five (25) parts per million (ppm).

(2) Except as provided in paragraphs (3), (4), (5) and (6) water well plugging and closure shall be accomplished by a licensed driller by the following methods:

(a) For uncased water wells, a cement grout or bentonite as defined in Rule 1200-4-9-.16(2)(c) or other grout material approved by the Department shall be placed in the well bore from two feet

below land surface to a minimum of twenty-five (25) feet below land surface. Native soil may be used to backfill the borehole from land surface to two feet below land surface or the driller may use cement or bentonite to land surface. The well bore twenty-five (25) feet below land surface shall be filled with either bentonite, cement grout, clean crushed stone one half inch in diameter or less, well cuttings, puddled clay, sand or combined mixture of any of these listed materials. Backfill shall remain level with land surface.

(b) For water wells with a minimum of nineteen feet of casing installed, a surface plug consisting of either cement grout or bentonite as defined in Rule 1200-4-9-.16(2)(c) shall be placed in the well bore from land surface to a minimum of five (5) feet below land surface. An additional seal of cement grout or bentonite as defined in Rule 1200-4-9-.16(2)(c) shall also be placed in the well bore for a minimum length of ten (10) feet. The top of this ten (10) foot seal shall either be located within twenty (20) feet below the bottom of the casing or at the top of the well screen or perforated pipe. The remaining well bore or casing shall be backfilled with either bentonite, cement grout, clean crushed stone one half inch in diameter or less, well cuttings, puddled clay, sand, or combined mixture of any of these listed materials. Surface casing may be terminated two (2) feet below land surface and native soil may be placed in the well bore from two feet to land surface provided that the upper surface plug of cement or bentonite grout is placed in the borehole from two to seven feet below land surface. Backfill shall remain level with land surface.

(c) The grout material used in the plugging and abandonment of a water well shall consist of a grout material approved by the Department or a mixture consisting of Portland Class A cement or quick setting cement in a ratio of not over six (6.0) gallons of water per ninety-four (94) pound sack of cement, or a high solids bentonite grout with a minimum of 20% solids and a weight of no less than nine and two tenths (9.2) pounds per gallon as measured by a standard mud balance. The use of bentonite, in chip or tablet form, ranging in size from one-quarter inch (1/4") to three-quarters (3/4) of an inch will be allowed as an alternate seal to slurry grouting. The bentonite shall be mixed and applied in accordance with the manufacturer's recommendations. The use of low solids bentonite drilling clay (designed for use as a drilling fluid to form a filter cake on the side walls of the borehole and to increase viscosity of water) is prohibited for use as a grout or sealing material except as an additive. If bentonite is used as a sealing material only bentonite grout, bentonite tablets, or bentonite chips, approved by the National Sanitation Foundation (NSF) or American National Standards Institute (ANSI) certified parties as meeting NSF product standard 60 or 61 shall be approved by the Department as appropriate grouting or sealing material.

(d) Placement of the backfill material shall be done in such a way that there are no bridges or gaps in the well bore. The top of the backfill material shall remain level with land surface.

(3) Wells extending into more than one aquifer shall be filled and sealed in such a way that exchange of water from one aquifer to another is prevented.

(4) The sealing of flowing wells shall be accomplished only after the wells have been treated to reduce the flow to zero. This may be accomplished by introducing high specific gravity fluids which are approved for use in potable water systems into the bottom of the well bore and continuing until the flow ceases.

(5) The driller or a person holding a license for well closure may submit a written petition for an alternative method of well abandonment. Any alternate method of filling and sealing a well shall be submitted to the Director for review and written approval prior to sealing a well by such method. In an emergency or in exceptional instances, the Department will respond to a verbal request provided the applicant submits a written application within ten (10) days of the verbal application.

(Rule 1200-4-9-.16, continued)

(6) Hand dug water wells greater than twelve inch in diameter without steel or plastic casing and less than sixty (60) feet in depth may be abandoned by a landowner, or the following individuals licensed in Tennessee: licensed engineers, licensed professional geologists, licensed building contractors, licensed pump installers, county environmentalists, or environmental specialists for the state of Tennessee. They must all follow the construction standards for the closure of a hand dug well. The landowner should contact the Division of Water Supply or a licensed driller prior to closing a hand dug well for additional technical assistance. The person, other than the landowner closing the hand dug well is responsible for submitting the well closure report for the hand dug well. A landowner who does the well closure is not required by law to complete a well closure report: however it is recommended that the landowner submit a letter to the Division of Water Supply similar to information submitted on a well closure report. The information serves as a public record of the landowners' compliance with state well construction standards and will be important information for land appraisals and property transfer arrangements. No matter who does the job, the landowner is ultimately responsible for the closure of a hand dug well.

(7) Hand dug water wells may be closed by using the following procedures:

(a) Thoroughly chlorinate the well prior to sealing by the addition of sufficient quantities of liquid bleach or dry hypochlorite granules to produce a free chlorine residual of twenty-five (25) parts per million within the entire well.

(b) Cement grout or bentonite as defined in Rule 1200-4-9-.16(c) must be used from five feet to two feet below land surface to place a barrier for the well. The remaining annular space from two feet to land surface may be filled with native soil or cement. Backfill must remain level with land surface.

(c) Construction debris, trash or wood are prohibitive materials and must never be used during the well closure process.

(d) Native soil material, gravel less than one inch or less in diameter, cement or bentonite may be used as well closure material from five feet below land surface to the total depth of the well.

(8) All well closure reports shall include a diagram showing the location and distance in feet of the closed well from one specific landmark and septic system or sewer systems on the property.

Authority: *T.C.A. §§4-5-201 et. seq. and 69-11-106.* ***Administrative History:*** *Original rule filed October 12, 1998; effective December 26, 1998. Repeal and new rule filed December 1, 2004; effective February 14, 2005.*

1200-4-9-.17 GEOTHERMAL WELL CONSTRUCTION STANDARDS FOR CLOSED LOOP GEOTHERMAL BOREHOLES.

(1) Location of Closed Loop Geothermal Boreholes

(a) The construction of a closed loop geothermal borehole is prohibited at other than a safe distance from any potential source of contamination. The minimum safe distances shall apply for the sources listed below:

Source of structure	Minimum Distances
Sewer Lines	10 feet
Septic Tanks	25 feet
Springs	100 feet
Septic Drain Fields	25 feet
Water Wells	100 feet
House to septic tank connection	10 feet

House to sewer line connection	10 feet

(2) Source of Drilling Water for Closed Loop Geothermal Boreholes

(a) All water used in drilling and construction of a closed loop geothermal borehole shall be from a public water supply, water well or protected spring box.

(b) All water used in the drilling or construction process shall be treated with enough chlorine product to retain a free chlorine residual of at least two (2) parts per million.

(c) Drilling fluids and additives shall be materials specified by the manufacturer for use in either water or geothermal well drilling or construction and approved by the Department.

(d) During the course of drilling a closed loop geothermal borehole with air rotary equipment, a minimum of one gallon per minute (1) of water must be injected or added into the air stream unless the drill rig is equipped and uses a dust cyclone to control dust. The amount of water injected shall be sufficient to control dust and to keep the borehole cleaned out.

(e) Petroleum based products or byproducts spilled or leaked from a drill rig in any quantity greater than one (1) quart shall be removed from the drilling area before the drill rig is removed from the borehole being constructed.

(3) Grouting for Closed Loop Geothermal Boreholes

(a) The entire borehole surrounding the closed loop shall be filled with a grout material approved by the Department. A cover from land surface to five (5) feet below land surface comprised of native soil material may be used in closed loop geothermal boreholes.

(b) Grout in closed loop geothermal boreholes is to be composed of cement, a bentonite cement mixture, high solids sodium bentonite or other grout material approved by the Department. Thermal grout, Thermal Grout Lite and Mix 111 Grout are three specific type grouts approved by the board for the grouting and closure of closed loop geothermal boreholes.

1. Cement grout shall be composed of Class A, Type I Portland Cement mixed with not more than six (6) gallons of clean water per bag (one cubic foot or 94 pounds) of cement with a density of 15 to 16 pounds per gallon, or to manufacturer's specifications.

2. Bentonite-cement grout shall be composed of powdered bentonite (less than 5% by weight) mixed at not more that 8 gallons of water to the bag, with a density of 14 to 15 pounds per gallon, or to manufacturer's specifications.

3. High solids sodium bentonite grout shall have minimum of 20 % solids and be mixed per manufacturer's specifications with water and/or other required additives.

(c) All grouting shall be accomplished using forced injection to emplace the grout. When emplacing the grouting material, the tremie pipe shall be lowered to the bottom of the zone to be grouted. The tremie pipe shall be kept full continuously from start to finish of the grouting procedure, with the discharge end of the tremie pipe being continuously submerged in the grout until the zone to be grouted is completely filled.

(d) The driller shall take all steps necessary to maintain safety around the borehole until the closed loop is installed and grouted in the borehole. The closed loop U-bend or dropline pipe shall be placed into the borehole to its proper depth and grouted in place within three (3) days of drilling each borehole unless the u-bend dropline pipe has been installed to its maximum depth with a

dedicated tremie pipeline. All Closed Loop Geothermal Boreholes shall be grouted in-place within fifteen (15) days of being drilled.

(e) When high solids bentonite grouts are used, a cover at the land surface at least the width of the borehole made of suitable materials, as approved by the Department, such as native soils, gravel, sand or thermoplastic material sufficient to support the weight of normal foot traffic shall be used as a covering for each borehole.

(f) Boreholes that encounter caves or large fractures below thirty (30) feet from land surface that prohibit the use of standard grouting procedures shall use one of the following materials to fill these intervals up to a maximum of thirty (30) feet in each well;

1. Chipped or granular bentonite;

2. Clean washed gravel ½ inch diameter or less;

3. Clean washed coarse sand; and

4. Liner casing shall consist of steel casing if the casing is permanently installed in the borehole

(4) Reporting of Closed Loop Geothermal Boreholes

(a) A "Report of Well Driller" for a closed loop geothermal borehole system shall be submitted by the driller to the Department within sixty (60) days after the drilling or closure of the last closed loop borehole in the system at the site. A Report of Well Driller shall also be submitted for a closed loop geothermal test borehole if drilled on the site to determine geology or heat transfer characteristics within sixty (60) days after drilling the borehole. See also Rule 1200-4-9-.17 (14) for Notice of Intent requirements for drilling.

(b) The report shall be true and accurate. Borehole footage shall be accurate to the nearest foot of measurement. The report shall include as a minimum the following accurate information about the system:

1. Name and address of the person for whom the closed loop geothermal boreholes were drilled;

2. The location of the system as denoted by county, street address and road name;

3. The location of the system as denoted by driller map number coordinate or latitude and longitude of the system and diagram of the closed loop geothermal boreholes showing each location and identification of other wells on the property and location of septic tanks, field lines or sewers;

4. The date the last closed loop geothermal borehole was drilled at the system site and additional information as required by the Department;

5. The licensed driller's name and contractor identification number, general specifications of the closed loop geothermal borehole such as depth, diameter, backfill and closed loop information;

6. Closed loop geothermal borings and underground lines associated with heat transfer to geothermal boreholes are required to have detectable underground tape placed above the

boring or heat transfer lines within eighteen inches of land surface to denote the subsurface location of the installations;

7. For systems with ten or less closed loop boreholes, the driller is required to provide a master plat to both the owner and Division of Water Supply of the location of each borehole. The plat shall include related distances from major buildings, septic tanks and field lines and sewer lines and be submitted with the Report of Well Driller within sixty (60) days upon completion of drilling of the last borehole on a given project. Site plans drawn up by a licensed engineer may be used if the driller is unable to provide a master plat;

8. For systems with eleven or more boreholes. The driller is required to provide a master plat to the owner of the property. The plat shall include related distances from major buildings, septic tanks and field lines and sewer lines. The driller shall also submit a Report of Well Driller to the Division of Water Supply within sixty (60) days upon completion of drilling of the last borehole on a given project. Site plans drawn up by a licensed engineer may be used if the driller is unable to provide a master plat.

(5) A geothermal driller license or closed loop installer license is required to install a closed loop dropline or u-bend loop in a closed loop geothermal borehole. In a closed-loop geothermal borehole, the material used to make up the heat-exchange loop that is placed in the ground or into a body of water must be composed of high-density polyethylene or other material approved by the Department. All closed loop material placed in the borehole must be installed and grouted within fifteen (15) days upon completion of drilling of each borehole. Each loop will be pressure tested to 100 pounds per square inch (psi) and maintain constant pressure for twenty (20) minutes before grouting and placement of loop into service. The entire system shall be free of leaks or pressure loss.

(a) High Density Polyethylene Pipe. This pipe must be manufactured in accordance with dimensional specifications of ASTM D-2513 or ASTM F-714 and must have a minimum cell classification of PE345434C up to PE345464C when tested under ASTM D-3350 to be acceptable for use in closed-loop heat pump systems. No other pipe shall be used for closed loop installation unless approved by the Department.

(6) Connecting Closed-Loop Pipe. The pipe must be thermally fused according to the pipe manufacturer's specifications and must not leak after assembly. No other connection method shall be used unless approved by the Department.

(7) Heat Transfer Fluid. The fluid used inside the closed-loop assembly must be composed of:

(a) Heat transfer fluids:

1. Pure glycerin solution-glycerin must be ninety-six and one-half (96.5%) United States pharmacopoeia grade;

2. Food grade propylene glycol;

3. Dipotassium phosphate;

4. Water;

5. Methanol

6. Ethanol; or

7. Other fluids as may be approved in advance by the Division.

(b) It is the responsibility of the closed loop installer, driller, primary geothermal heat pump installer and owner to become familiar with the safe and proper use of these fluids and to take necessary precautions to ensure ground water protection.

(8) Boreholes with closed loop u-bend material in the borehole shall have all heat transfer fluid removed from the closed loop before borehole abandonment. This fluid shall be disposed in accordance with manufacturers specifications. The closed loop u-bend material shall either be completely removed from the borehole before closure and the borehole closed in accordance with Rule 1200-4-9-.17 (10)(a) or the loop shall be pumped full of cement grout or bentonite or other material approved by the Department. The driller shall denote on the geothermal well abandonment report how much grout or bentonite was used in sealing the closed loop or u-bend material. The upper portion of the borehole to five feet below land surface may be filled with compacted earth or same material to fill the closed loop.

(9) The driller or person holding a license for well closure shall backfill and abandon any drilled closed loop borehole in accordance with Rule 1200-4-9-.17(10)(a) not intended for use within 15 days after the drill rig leaves the property. The driller shall take all steps necessary to maintain safety around the site until the closure process is completed. Prior to closing any such borehole the driller shall:

(a) Check the entire depth of the borehole for obstructions that may interfere with sealing operations and remove them, and

(b) Thoroughly chlorinate the borehole prior to sealing by the addition of sufficient quantities of liquid bleach or dry hypochlorite granules to produce a free chlorine residual of 25 parts per million (ppm).

(10) Closed loop borehole plugging and abandonment shall be accomplished by a licensed driller by the following methods:

(a) For closed loop boreholes without thermal transfer pipe, or closed loops installed, a cement grout or bentonite or other approved sealing material approved by the Department shall be placed in the borehole from two (2) feet below land surface to a minimum of twenty-five (25) feet below land surface. Native soil may be used to backfill the borehole from land surface to two feet below land surface or the driller may use cement or bentonite to land surface. The borehole twenty-five (25) feet below land surface shall be filled with either bentonite, cement grout, clean crushed stone one half inch in diameter or less, well cuttings, puddled clay, sand or combined mixture of any of these listed materials. Backfill shall remain level with land surface.

(b) The grout material used in the plugging and abandonment of a closed loop borehole shall consist of a mixture of Portland Class A cement or quick setting cement in a ratio of not over six (6.0) gallons of water per ninety-four (94) pound sack of cement, or a high solids bentonite grout with a minimum of 20% solids and a weight of no less than nine and two tenths (9.2) pounds per gallon as measured by a standard mud balance or other type grout material approved by the Department. The use of bentonite, in chip or tablet form, ranging in size from one-quarter (1/4") inch to three-quarters (3/4) of an inch will be allowed as an alternate seal to slurry grouting. The bentonite shall be mixed and applied in accordance with the manufacturer's recommendations. The use of low solids bentonite drilling clay (designed for use as a drilling fluid to form a filter cake on the side walls of the borehole and to increase viscosity of water) is prohibited for use as a grout or sealing material except as an additive. If bentonite is used as a sealing material, only bentonite grout, bentonite tablets, or bentonite chips, approved by the National Sanitation Foundation (NSF) or American National Standards Institute (ANSI)

certified parties as meeting NSF product standard 60 or 61 shall be approved by the Department as appropriate grouting or sealing material.

(c) Placement of the backfill material shall be done in such a way that there are no bridges or gaps in the borehole. The top of the backfill material shall remain level with land surface.

(11) Boreholes extending into more than one aquifer shall be filled and sealed in such a way that exchange of water from one aquifer to another is prevented.

(12) The driller or person holding a license for well closure may submit a written petition for an alternative method of borehole abandonment. Any alternate method of filling and sealing a well shall be submitted to the Director for review and written approval prior to sealing a borehole by such method. In an emergency or in exceptional instances, the Department will respond to a verbal request provided the applicant submits a written application within ten (10) days of the verbal application

(13) Every licensed driller or person holding a license for well closure, within sixty (60) days of abandonment of a closed loop borehole, shall submit a report of the abandonment of the borehole to the Department. The well abandonment report shall be made on a form provided by the Department or a reasonable facsimile approved by the Department. The report shall include the same information as required on the completion report and shall include specific information on how the borehole was closed and the placement and type of backfill placed in the borehole. The abandonment report shall be signed by the licensed driller or person holding a license for well closure.

(14) Notice of Intent required to drill geothermal closed loop well system.

(a) A Notice of Intent to drill a closed loop geothermal borehole system must be submitted by the property owner or the licensed well driller to the Director in the manner prescribed by the Department, prior to commencement of drilling a water well or a closed loop geothermal borehole system in Tennessee. The licensed driller is required to have sufficient documentation that a Notice of Intent was submitted to the Division of Water Supply before beginning operations at a drill site. Sufficient documentation for a Notice of Intent being filed may include one of the following:

1. Fee receipt of the Notice of Intent.

2. Confirmation number of the Notice of Intent or other approved format approved by the Director and issued by the Department.

(b) The Notice of Intent fee or copy of the receipt for a Notice of Intent fee shall accompany the submission of the driller's report. No well or borehole shall be drilled unless the driller has documentation that a Notice of Intent has been filed. All well reports shall be submitted with documentation of the Notice of Intent fee being paid. Documentation of the fee being paid shall consist of the receipt originating from a Notice of Intent or money collected and enclosed with the original driller's report by the driller for the Notice of Intent. A Notice of Intent and fee is not required for well closure, deepening or reworking any closed loop geothermal borehole. The amount of the Notice of Intent fee shall be reviewed by the Department at least every five (5) years and shall currently be scheduled as follows:

1.	Geothermal well system (closed loop), ten boreholes or less	$ 75.00
2.	Geothermal well system (closed loop) eleven to fifty boreholes	$150.00
3.	Geothermal well system (closed loop) fifty-one boreholes or greater	$500.00

(Rule 1200-4-9-.17, continued)

4. Closed Loop test hole for thermal conductivity and geology $ 75.00

(c) The requirement to furnish the Department a Notice of Intent fee payment shall not apply to closed loop geothermal boreholes drilled in any local jurisdiction which is authorized, by private act or pursuant to the provisions of an adopted "home rule" charter, to regulate the location and construction of these wells and which has established a fee for the inspection of both geothermal and water wells approved by the Commissioner.

(d) A Notice of Intent fee shall not apply to any property owner who within the past five years has filed a Notice of Intent and paid the fee for the same property. The property owner or driller must identify on the new Notice of Intent submitted for the property the identification number from the first Notice of Intent fee submitted.

(e) Checks returned for insufficient funds will be charged an established check processing fee and the Division will seek payment from the individual responsible for writing the check.

(f) A Notice of Intent shall expire one hundred and eighty days from the original date filed by the well driller or homeowner.

(g) When strict compliance with these standards is impractical, the driller or installer shall make application to the Department for approval of an alternative standard prior to the work being done. The Department may grant the request for an alternative standard if it determines the proposed standards offer an equivalent or higher level of protection to the environment. In an emergency or in exceptional instances, the Department will respond to a verbal request provided the applicant submits a written application within ten (10) ten days of the verbal application.

Authority: *T.C.A. §§4-5-201 et. seq. and 69-11-106.* ***Administrative History:*** *Original rule filed December 1, 2004; effective February 14, 2005.*

1200-4-9-.18 MONITOR WELL CONSTRUCTION STANDARDS.

(1) Construction standards for monitor wells are not promulgated under this statute. Construction standards for monitor wells are regulated by the state agency requiring the monitor well to be placed into service. The Well Act only requires an individual to be licensed as a monitor well driller.

(2) Monitor well reports and Notice of Intent fees for monitor wells are not required to be submitted to the Division of Water Supply.

(3) Installer licenses are not required to install pumps or water treatment devices on monitor wells.

(4) Monitor wells are required to be constructed by licensed monitor well drillers.

(5) Monitor wells may be closed by a licensed water well driller, geothermal driller, monitor well driller or a person holding a license for well closure. Well closure standards for monitor wells are regulated by the agency requiring the monitor well to be placed into service and not the Division of Water Supply.

Authority: *T.C.A. §§4-5-201 et. seq. and 69-11-106.* ***Administrative History:*** *Original rule filed December 1, 2004; effective February 14, 2005.*

RULES
OF
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
WATER QUALITY CONTROL BOARD
DIVISION OF WATER POLLUTION CONTROL

CHAPTER 1200-4-10
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMITS

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1200-4-10-.01 GENERAL

This chapter states the manner in which the Department may issue general permits in accordance with § 402 of the Clean Water Act (33 U.S.C. § 1342) and T.C.A. § 69-3-108.

Authority**: T.C.A. § 69-3-105(b).* ***Administrative History: *Original rule filed August 12, 1992; effective September 26, 1992.*

1200-4-10-.02 DEFINITIONS

(1) "Act" means the Tennessee Water Quality Control Act, as amended, T.C.A. § 69-3-101 et seq.

(2) "Category of Sources" means either (1) Storm water point sources; or (2) A category of point sources other than storm water point sources, or a category of treatment works treating domestic sewage, if the sources all:

(a) Involve the same or substantially similar types of operations;

(b) Discharge the same types of wastes or engage in the same types of sludge use or disposal practices

(c) Require the same effluent limitations, operating conditions, or standards for sewage sludge use or disposal;

(d) Require the same or similar monitoring; and

(e) In the opinion of the Director, are controlled more appropriately under a general permit than under individual permits.

(3) "General Permit" means a permit issued under the Act and this Rule authorizing discharges from a category of sources within a geographical area.

(4) "Geographical Area" means existing geographic or political boundaries such as:

(a) Designated planning areas under sections 208 and 303 of the Federal Clean Water Act;

(b) Sewer districts or sewer authorities;

(c) City, County, or State political boundaries;

(Rule 1200-4-10-.02, continued)

(d) State highway systems;

(e) Standard metropolitan statistical areas as defined by the Office of Management and Budget;

(f) Urbanized areas as designated by the Bureau of the Census according to criteria in 30 FR 15202 (May 1, 1974); or

(g) Any other appropriate division or combination of boundaries.

(5) "Individual Permit" means a permit issued under the Act to a specified person to conduct a discharge at a specified location.

(6) "Notice of Intent (NOI)" means a written notice by a discharger to the Director that he wishes his discharge to be authorized under a general permit.

(7) Terminology not specifically defined herein shall be defined in accordance with the Tennessee

Authority**: T.C.A. § 69-3-105(b).* ***Administrative History: *Original rule filed August 12, 1992; effective September 26, 1992.*

1200-4-10-.03 PERMITS

(1) Purpose of a Permit: A permit is a license to conduct an activity which is regulated under § 69-3-108 in strict compliance with the conditions and limitations contained within the permit. § 69-3-108 explicitly states when a permit is required and what activities shall be unlawful without a permit. In addition, § 69-3-108 states that under no circumstances shall the Commissioner issue a permit for an activity which would cause a condition of pollution, either by itself or in combination with others. No permit shall be issued which will violate any provision of §§ 301, 302, 303, 306, or 307 of the Federal Water Pollution Control Act or of the Tennessee Water Quality Control Act of 1977 or otherwise result in a condition of pollution. Where the Commissioner finds that a category of activities or discharges would be appropriately regulated under a general permit, he may issue such a permit.

(2) Administration

(a) General permits may be issued, modified, revoked and reissued, or terminated in accordance with applicable requirements of T.C.A. § 69-3-108(e-j).

(b) Requiring an individual permit

1. Notwithstanding the provisions of this rule, the Director may require any person to apply for and obtain an individual NPDES permit. Any interested person may petition the Director to take action under this part. Cases where an individual NPDES permit may be required include the following:

(i) The discharger is not in compliance with the conditions of the general NPDES permit;

(ii) A change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the point source or treatment works;

(iii) Effluent limitation guidelines are promulgated for point sources covered by the general NPDES permit;

(Rule 1200-4-10-.02, continued)

(iv) A Water Quality Management plan containing requirements applicable to such point sources is approved;

(v) Circumstances have changed since the time of the request to be covered so that the discharger is no longer appropriately controlled under the general permit, or either a temporary or permanent reduction or elimination of the authorized discharge is necessary;

(vi) Standards for sewage sludge use or disposal have been promulgated for the sludge use and disposal practice covered by the general NPDES permit;

(vii) The discharge is a significant contributor of pollutants. In making this determination, the Director may consider the following factors:

(I) The location of the discharge with respect to waters of the State of Tennessee;

(II) The size of the discharge;

(III) The quantity and nature of the pollutants discharged to waters of the State of Tennessee; and

(IV) Other relevant factors.

2. Any owner or operator authorized by a general permit may request to be excluded from the coverage of the general permit by applying for an individual permit. The owner or operator shall submit an application under T.C.A. § 69-3-108(a), with reasons supporting the request, to the Director no later than 90 days after the effective date of the general permit rule.

3. When an individual NPDES permit is issued to an owner or operator otherwise subject to a general NPDES permit, the applicability of the general permit to the individual NPDES permittee is terminated on the effective date of the individual permit.

4. A source excluded from a general permit solely because it already has an individual permit may request that the individual permit be revoked, and that it be covered by the general permit. Upon revocation of the individual permit, the general permit shall apply to the source.

(c) Degree of Waste Treatment Required.

All pollutants shall receive such treatment or corrective action so as to insure compliance with the terms and conditions of the issued permit and with the following, whenever applicable:

1. Effluent limitations established by the EPA pursuant to §§ 301, 302, 306, 307, 308, 318, and 405 of the Federal CWA;

2. Criteria and standards for Best Management Practices established by EPA pursuant to Section 304(e) of the Federal CWA;

3. Notwithstanding the above, more stringent effluent limitations may be required as deemed necessary by the Director (a) to meet any existing Federal laws or regulations, or (b) to insure compliance with any applicable State water quality standards, effluent limitations, treatment standards, or schedule of compliance;

(Rule 1200-4-10-.02, continued)

4. Calculations and specifications of effluent limits and standards shall be made in accordance with the provisions of Federal Regulations, 40 CFR 122.45 (1995). [See paragraph (3) for text of cited Federal Regulations.]

(d) Notice of Intent (NOI)

1. Conditions for NOI to be covered by a general permit shall be established in the general permits and operate in lieu of application requirements. A general permit shall specify whether or not an NOI must be submitted for a facility to obtain coverage under the general permit.

2. A general permit shall specify the time period, after an NOI is submitted, or after the general permit is issued, when coverage under the general permit is effective.

3. An NOI shall be on forms as may be prescribed and furnished by the Director.

(e) Signatory Requirements

1. Any NOI submitted to the Director shall be signed as follows:

(i) For a corporation: by a responsible corporate officer. For the purpose of this subpart, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

(ii) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(iii) For a municipality, State, Federal, or other public facility: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

2. All reports required by the permit or information submitted to the Director shall be signed by a person designated in part 1 above or a duly authorized representative of such person, if:

(i) The representative so authorized is responsible for the overall operation of the facility from which the discharge originated, e.g., a plant manager, superintendent or person of equivalent responsibility;

(ii) The authorization is made in writing by the person designated under part 1 above; and

(iii) The written authorization is submitted to the Director.

3. Any changes in the written authorization submitted to the Director under part 2 above which occur after the issuance of a permit shall be reported to the Director by submitting

a copy of a new written authorization which meets the requirements of parts 1 and 2 above.

4. Any person signing any document under parts 1 or 2 above shall make the following certification: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in the attached document; and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

(f) Receipt and use of NOI's and data shall be in accordance with Rule 1200-4-1-.07.

(g) Notice of NPDES General Permits

1. The Director shall give public notice of his or her intent to issue a general permit:

(i) the notice shall set forth the means by which one may comment on the draft general permit and shall give the public a comment period of at least 30 days;

(ii) the Director shall consider all comments received from the public during the comment period;

(iii) when the general permit is issued, or when the decision is made not to issue the permit, the Director shall prepare and make available to the public a set of responses to comments received during the comment period; and

(iv) the Director shall schedule at least one public hearing on the general permit, and give at least 30 days notice of the hearing, and receive comments for at least ten days after the hearing.

2. Public notices in part 1. above shall be given by mailing a copy of the notice to the following persons:

(i) EPA Region IV;

(ii) any other agency which the Director knows has issued or is required to issue a RCRA, UIC, PSD (or other permit under the Clean Air Act), NPDES, 404, or sludge management permit;

(iii) Federal and State agencies with jurisdiction over fish, shellfish, and wildlife resources, the Tennessee Valley Authority, the Advisory Council on Historic Preservation, and the Tennessee Historical Commission, including any affected States;

(iv) any State agency responsible for plan development under CWA Section 208(b)(2), 208(b)(4) or 303(e) and the U.S. Army Corps of Engineers, and the U.S. Fish and Wildlife Service; and

(v) persons on a mailing list developed by including on the list those who request in writing to be on the list; by soliciting persons for area lists from participants in past permit proceedings in that area; and by notifying the public of the opportunity to be put on the mailing list through periodic publication in the public press and in such publications as Regional and State funded newsletters, environmental bulletins, or State law journals.

3. Public notices in part 1. above shall be given by publication in a daily or weekly newspaper within the area described in the general permit coverage. In the case of statewide general permits, in daily newspapers in Memphis, Nashville, Chattanooga and Knoxville.

4. The Director shall provide notice of the proposed NPDES general permit action to facilities and activities it knows to be potentially affected by the general permit action, and also to known agencies, associations, and other umbrella organizations for those facilities or activities.

5. Public notices issued under this subparagraph shall contain the following minimum information:

(i) name and address of the Division and any section within the Division responsible for processing the permit action for which notice is being given;

(ii) a brief description of the activity addressed in the general permit, and the area of coverage of the permit;

(iii) name, address and telephone number of a person from whom interested persons may obtain further information, including copies of the draft general permit and rationale sheet;

(iv) a brief description of the procedures for comment, the time and place of the hearing, and other procedures by which the public may participate in the final permit decision; and

(v) in addition to information described in subparts i. - iv. above, public notice of hearings shall contain reference to the date of previous public notices relating to the permit; date, time and place of the hearing; and a brief description of the nature and purpose of the hearing, including the applicable rules and procedures.

6. In addition to the general public notice described in part 5., persons identified in subparts 2. i., ii., iii. and iv. shall be mailed a copy of the draft permit and rationale sheet.

(h) Public Participation in NPDES General Permits

1. The public may comment on conditions of draft general permits by written comment during the public notice and comment period, by written or oral comments at public hearings, and by written comment within 10 days of a public hearing.

2. As provided at 1200-4-10-.03(2)(b), any interested person may petition the Director to require an individual NPDES permit for an individual facility or activity otherwise covered under a general permit.

(i) Terms and Conditions of Permits. General Permits issued shall be subject to the terms and conditions of Rule 1200-4-1-.05(4).

(j) Duration of Permits. General Permits shall be issued for a fixed term, not to exceed 5 years, which shall be stated in the permit.

(3) Text of Cited Federal Regulations

(Rule 1200-4-10-.02, continued)

40 CFR § 122.45 Calculating NPDES permit conditions (applicable to State NPDES programs, see § 123.25).

(a) Outfalls and discharge points. All permit effluent limitations, standards and prohibitions shall be established for each outfall or discharge point of the permitted facility, except as otherwise provided under § 122.44(k) (BMPs where limitations are infeasible) and paragraph (i) of this section (limitations on internal waste streams).

(b) Production-based limitations.

(1) in the case of POTWs, permit effluent limitations, standards, or prohibitions shall be calculated based on design flow.

(2)(i) Except in the case of POTWs or as provided in paragraph (b)(2)(ii) of this section, calculation of any permit limitations, standards, or prohibitions which are based on production (or other measure of operation) shall be based not upon the designed production capacity but rather upon a reasonable measure of actual production of the facility. For new sources or new dischargers, actual production shall be estimated using projected production. The time period of the measure of production shall correspond to the time period of the calculated permit limitations; for example, monthly production shall be used to calculate average monthly discharge limitations.

(ii)(A)(1) The Director may include a condition establishing alternate permit limitations, standards, or prohibitions based upon anticipated increased (not to exceed maximum production capability) or decreased production levels.

(2) For the automotive manufacturing industry only, the Regional Administrator shall, and the State Director may establish a condition under paragraph (b)(2)(ii)(A)(1) of this section if the applicant satisfactorily demonstrates to the Director at the time the application is submitted that its actual production, as indicated in paragraph (b)(2)(i) of this section, is substantially below maximum production capability and that there is a reasonable potential for an increase above actual production during the duration of the permit.

(B) If the Director establishes permit conditions under paragraph (b)(2)(ii)(A) of this section:

(1) The permit shall require the permittee to notify the Director at least two business days prior to a month in which the permittee expects to operate at a level higher than the lowest production level identified in the permit. The notice shall specify the anticipated level and the period during which the permittee expects to operate at the alternate level. If the notice covers more than one month, the notice shall specify the reasons for the anticipated production level increase. New notice of discharge at alternate levels is required to cover a period or production level not covered by prior notice or, if during two consecutive months otherwise covered by a notice, the production level at the permitted facility does not in fact meet the higher level designated in the notice.

(2) The permittee shall comply with the limitations, standards, or prohibitions that correspond to the lowest level of production specified in the permit, unless the permittee has notified the Director under paragraph (b)(2)(ii)(B)(1) of this section, in which case the permittee shall comply with the lower of the actual level of production during each month or the level specified in the notice.

(3) The permittee shall submit with the DMR the level of production that actually occurred during each month and the limitations, standards, or prohibitions applicable to that level of production.

(c) Metals. All permit effluent limitations, standards, or prohibitions for a metal shall be expressed in terms of "total recoverable metal" as defined in 40 CFR Part 136 unless:

(1) An applicable effluent standard or limitation has been promulgated under the CWA and specifies the limitation for the metal in the dissolved or valent or total form; or

(2) In establishing permit limitations on a case-by-case basis under § 125.3, it is necessary to express the limitation on the metal in the dissolved or valent or total form to carry out the provisions of the CWA; or

(3) All approved analytical methods for the metal inherently measure only its dissolved form (e.g., hexavalent chromium).

(Rule 1200-4-10-.02, continued)

(d) Continuous discharges. For continuous discharges all permit effluent limitations, standards, and prohibitions, including those necessary to achieve water quality standards, shall unless impracticable be stated as:

(1) Maximum daily and average monthly discharge limitations for all dischargers other than publicly owned treatment works; and

(2) Average weekly and average monthly discharge limitations for POTWs.

(e) Non-continuous discharges. Discharges which are not continuous, as defined in § 122.2, shall be particularly described and limited, considering the following factors, as appropriate:

(1) Frequency (for example, a batch discharge shall not occur more than once every 3 weeks);

(2) Total mass (for example, not to exceed 100 kilograms of zinc and 200 kilograms of chromium per batch discharge);

(3) Maximum rate of discharge of pollutants during the discharge (for example, not to exceed 2 kilograms of zinc per minute); and

(4) Prohibition or limitation of specified pollutants by mass, concentration, or other appropriate measure (for example, shall not contain at any time more than 0.1 mg/1 zinc or more than 250 grams (¼ kilogram) of zinc in any discharge).

(f) Mass limitations.

(1) All pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass except:

(i) For pH, temperature, radiation, or other pollutants which cannot appropriately be expressed by mass;

(ii) When applicable standards and limitations are expressed in terms of other units of measurement; or

(iii) If in establishing permit limitations on a case-by-case basis under § 125.3, limitations expressed in terms of mass are infeasible because the mass of the pollutant discharged cannot be related to a measure of operation (for example, discharges of TSS from certain mining operations), and permit conditions ensure that dilution will not be used as a substitute for treatment.

(2) Pollutants limited in terms of mass additionally may be limited in terms of other units of measurement, and the permit shall require the permittee to comply with both limitations.

(g) Pollutants in intake water.

(1) Upon request of the discharger, technology-based effluent limitations or standards shall be adjusted to reflect credit for pollutants in the discharger's intake water if:

(i) The applicable effluent limitations and standards contained in 40 CFR Subchapter N specifically provide that they shall be applied on a net basis; or

(ii) The discharger demonstrates that the control system it proposes or uses to meet applicable technology-based limitations and standards would, if properly installed and operated, meet the limitations and standards in the absence of pollutants in the intake waters.

(2) Credit for generic pollutants such as biochemical oxygen demand (BOD) or total suspended solids (TSS) should not be granted unless the permittee demonstrates that the constituents of the generic measure in the effluent are substantially similar to the constituents of the generic measure in the intake water or unless appropriate additional limits are placed on process water pollutants either at the outfall or elsewhere.

(3) Credit shall be granted only to the extent necessary to meet the applicable limitation or standard, up to a maximum value equal to the influent value. Additional monitoring may be necessary to determine eligibility for credits and compliance with permit limits.

(4) Credit shall be granted only if the discharger demonstrates that the intake water is drawn from the same body of water into which the discharge is made. The Director may waive this requirement if he finds that no environmental degradation will result.

(5) This section does not apply to the discharge of raw water clarifier sludge generated from the treatment of intake water.

(h) Internal waste streams.

(Rule 1200-4-10-.02, continued)

(1) When permit effluent limitations or standards imposed at the point of discharge are impractical or infeasible, effluent limitations or standards for discharges of pollutants may be imposed on internal waste streams before mixing with other waste streams or cooling water streams. In those instances, the monitoring required by § 122.44(i) shall also be applied to the internal waste streams.

(2) Limits on internal waste streams will be imposed only when the fact sheet under § 124.56 sets forth the exceptional circumstances which make such limitations necessary, such as when the final discharge point is inaccessible (for example, under 10 meters of water), the wastes at the point of discharge are so diluted as to make monitoring impracticable, or the interferences among pollutants at the point of discharge would make detection or analysis impracticable.

(i) Disposal of pollutants into wells, into POTWs or by land application. Permit limitations and standards shall be calculated as provided in § 122.50. (Information collection requirements in paragraph (b) were approved by the Office of Management and Budget under control number 2040-0077)

***Authority**: T.C.A. § 69-3-105(b).* ***Administrative History:** Original rule filed August 12, 1992; effective September 26, 1992. Amendment filed September 11, 1996; effective November 25, 1996.*

1200-4-10-.04 REPEALED

***Authority**: T.C.A. §69-3-105(b).* ***Administrative History**: Original rule filed August 12, 1992; effective September 26, 1992. Repeal filed August 31, 2000; effective December 29, 2000.*

1200-4-10-.05 REPEALED

***Authority**: T.C.A. §69-3-105(b).* ***Administrative History**: Original rule filed Autust 12, 1992; effective September 26, 1992. Repeal filed August 31, 2000; effective December 29, 2000.*

1200-4-10-.06 REPEALED

***Authority**: T.C.A. §§ 69-3-105(b) and 4-5-202.* ***Administrative History**: Original rule filed March 18, 1994; effective June 1, 1994. Repeal filed August 31, 2000; effective December 29, 2000.*

1200-4-10-.07 REPEALED

***Authority:** T.C.A. §§69-3-105(b) and 4-5-202.* ***Administrative History:** Original rule filed April 19, 1995; effective July 3, 1995. Repeal filed August 31, 2000; effective December 29, 2000.*

RULES
OF
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER POLLUTION CONTROL
WATER QUALITY CONTROL BOARD

CHAPTER 1200-04-11
ENVIRONMENTAL PROTECTION FUND FEES

TABLE OF CONTENTS

1200-04-11-.01 GENERAL.

(1) General

(a) Pursuant to T.C.A. §68-203-101 et seq. the Department of Environment and Conservation, hereafter referred to as the Department, shall charge fees for the various services and functions it performs under statutes, including the Water Quality Control Act of 1977. Fees under the Act are to be adopted as regulations by the Water Quality Control Board. This regulation prescribes those fees applicable to categories of applicants for and holders of permits issued under authority of the Act. The Board is further required to establish a schedule for timely action by the Department on permit applications where a permit processing fee is established. This regulation sets out such a schedule.

(b) Purpose, Scope, and Applicability – This Rule provides definitions of terms, general standards and procedures, and overview information applicable to these Rules.

(c) Use of the Number and Gender – As used in these Rules:

1. Words in the masculine gender also include the feminine and neuter genders; and

2. Words in the singular include the plural; and

3. Words in the plural include the singular.

(d) Rule Structure

These Rules are organized, numbered, and referenced according to the following outline form:

(1) paragraph

(a) subparagraph

1. part

(i) subpart

(I) item

I. subitem

A. section

(A) subsection

(2) Definitions

(a) Definitions - When used in Rules 1200-04-11-.01 through .03, the following terms have the meanings given below unless otherwise specified:

"Act" means the Water Quality Control Act, as amended, T.C.A. §69-3-101 et seq.

"Application" means those forms supplied by the Department, properly completed, together with such technical reports, plans and specifications as may be required to apply for permit.

"ARAP" means Aquatic Resource Alteration Permit, a permit that authorizes the alteration of properties of the waters of the State resulting from activities other than point source wastewater discharges.

"Board" means the Water Quality Control Board.

"Clean Water Act (CWA)" is the common name for the Federal Water Pollution Control Act. Public law 92–500; 33 U.S.C. §1251 et seq.; the legislation, which provides statutory authority for both NPDES and Pretreatment Programs.

"Commissioner" means the Commissioner of the Department of Environment and Conservation or the commissioner's duly authorized representative and, in the event of the commissioner's absence or a vacancy in the Office of Commissioner, the Deputy Commissioner.

"Concentrated Animal Feeding Operation (CAFO)," means an animal feeding operation that may discharge to waters of the United States, impact groundwater or otherwise adversely impact the water resources of Tennessee.

"Construction Activity" means the disturbance of soils associated with clearing, grading, excavating, filling of land, or other similar activities which may result in soil erosion. Construction activity does not include agriculture and silvicultural practices.

"Control Authority" means:

1. the POTW if the POTW's submission for its pretreatment program has been approved; or

2. the Division if the submission has not been approved.

"Department" means the Department of Environment and Conservation.

"Director" means the Director of the Division of Water Pollution Control.

"Division" means the Division of Water Pollution Control

"Facility", in the context of stormwater industrial discharges, means those portions of the property on which industrial activity occurs.

(Rule 1200-04-11-01, continued)

"Family Farm" means one or more tracts of land, used for agricultural purposes, that are held in private ownership by one or more people related by birth or marriage.

"Federal Water Pollution Control Act" means the federal law promulgated to control and eliminate pollutants, also known as the Clean Water Act, as amended. 33 U.S.C.1251, et seq.

"Incorporated Place" means a city, town, metropolitan government, township, or village that is incorporated under the laws of Tennessee.

"Indirect Discharge" means introduction of pollutants into a POTW from any non–domestic source regulated by the Clean Water Act.

"Industrial Facility" means an activity or facility that is issued a permit for discharge of wastewater other than domestic or municipal wastewater.

"Industrial Flow" means the daily effluent flow occurring on days when the facility is in operation, averaged over the 12 month period preceding the billing date for Permit Annual Maintenance Fees.

"Industrial User " means the facility that is the source of an Indirect Discharge.

"Large Municipal Separate Storm Sewer System" means all municipal separate storm sewers which, are either:

1. Located in an incorporated place with a population of 250,000 or more as determined by the latest Decennial census by the Bureau of Census; or

2. Located in the counties with unincorporated urbanized areas with a population of 250,000 or more according to the latest Decennial census by the Bureau of Census except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties; or

3. Owned or operated by a municipality other than those described in part 1 or 2 of this definition and that are designated by the Director as part of the large or medium municipal separate storm sewer system due to the interrelationship between the discharges of the designated storm sewer and the discharges from municipal separate storm sewers described under part 1 or 2 of this definition; or

4. Designated by the Director, upon petition, as a large municipal separate storm sewer system, if the municipal separate storm sewers located within the boundaries of a region defined by a storm water management regional authority based on a jurisdictional, watershed, or other appropriate basis includes one or more of the systems described in parts 1, 2, or 3 of this definition.

"Large Pretreatment Program" means an approved program which has issued permits, for the purpose of controlling the discharge of process wastewater, to twenty or more significant industrial users.

"Major" means an NPDES permit classified as such by the Regional Administrator of the Environmental Protection Agency, or the Director of the Division of Water Pollution Control.

"Medium Municipal Separate Storm Sewer System" means all municipal separate storm sewers that are either:

(Rule 1200-04-11-01, continued)

1. Located in an incorporated place with a population of 100,000 or more but less than 250,000, as determined by the latest Decennial Census by the Bureau of Census; or

2. Located in counties with unincorporated urbanized areas greater than 100,000, but less than 250,000, as determined by the latest Decennial Census by the Bureau of Census, except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties; or

3. Owned or operated by a municipality other than those described in part 1 or 2 of this definition and that are designated by the Director as part of the medium municipal separate storm sewer system due to the interrelationship between the discharges of the designated storm sewer and the discharges from municipal separate storm sewers described under part 1 or 2 of this definition; or

4. Designated by the Director upon petition, as a medium municipal separate storm sewer system, if the municipal separate storm sewers located within the boundaries of a region defined by a storm water management regional authority based on a jurisdictional, watershed, or other appropriate basis that includes one or more of the systems described in parts 1, 2, or 3 of this definition.

"Medium Pretreatment Program" means an approved program which has issued permits, for the purpose of controlling the discharge of process wastewater, to eight or more, but less than twenty, significant industrial users.

"Mining" means a permit for discharge of wastewater from mining operations, including operations to obtain minerals, limestone, coal, marble, chert, gravel, sand, sandstone, dimension stone, phosphate, barite, shale, clay, fullers earth and those mining operations regulated by T.C.A.§59-8-201 et seq.

"Mining Reclamation" means an NPDES permit for the reclamation phase of mining operation.

"Minor" means an NPDES permit not classified as a major by the Regional Administrator of the Environmental Protection Agency, in conjunction with the Director of the Division of Water Pollution Control.

"Municipal Separate Storm Sewer System" means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

Owned or operated by a state , city, town, county, metropolitan government, utility district, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under state law, or a designated and approved management agency that discharges to waters of the United States:

Designed or used for collecting or conveying storm water;

Which is not a combined sewer; and,

Which is not part of a Publicly Owned Treatment Works (POTW).

"National Pollutant Discharge Elimination System (NPDES)" is the national program for issuing, modifying, revoking and terminating permits for wastewater discharges to

(Rule 1200-04-11-01, continued)

waters of the state and imposing conditions for those discharges, including pretreatment requirements.

"Natural Person" means an individual distinguished from an artificial person such as a corporation.

"Non–Discharging System" means a system issued a permit under the Act for treatment and disposal of wastewater by means other than discharge to waters of the State. Such means may include, but are not limited to, recycle, irrigation, and evaporation.

"Owner or Operator" means any person who owns, leases, operates, controls, or supervises a source.

"Permit" means a permit issued under authority of T.C.A. §69-3-108 of the Act.

"Permit Annual Maintenance Fee" means a fee, which is due to be paid annually by a person issued a permit.

"Permit Application Fee" means a fee which is required to be paid upon application for a permit or a notice of intent to be covered by a general permit.

"Person" means any and all persons, including individuals, firms, partnerships, associations, public or private institutions, state and federal agencies, municipalities or political subdivisions, or officers thereof, departments, agencies, or instrumentalities, or public or private corporations or officers thereof, organized or existing under the laws of this or any state or country.

"Personal Residence" means a natural person's primary place of abode.

"Pretreatment Program" means a program that has been authorized by the Division in which a POTW regulates indirect discharges.

"Process Wastewater" means any water which, during manufacturing or processing, comes into direct contract with or results from the production or use of any raw material, intermediate product, finished product, by product, or waste product. This does not include sanitary, boiler blow-down, or non–contact cooling water.

"Project" in the context of 401 certification, ARAP, and construction stormwater, means the area in which vegetation is removed, or excavation or grading occurs.

"Publicly Owned Treatment Works (POTW)" means a treatment works as defined by Section 212 of the Clean Water Act, which is owned by a state, city, town, county, utility district, metropolitan government or other public body (created by or pursuant to State law). This definition includes any devices and systems used in the storage and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW treatment plant.

"Regional Administrator" means the Regional Administrator of EPA's Region IV office in Atlanta, Georgia.

"Sewage Treatment Facility" means a treatment works that has been issued a permit for discharge of municipal or domestic wastewater.

(Rule 1200-04-11-01, continued)

"Sewage Treatment Facility Flow" means the average daily effluent flow over the 12-month period preceding the fee billing date. The averaging basis shall include all days during which the treatment facility was in operation, whether or not there was any discharge.

"Significant Industrial User" means:

1. all industrial users subject to Categorical Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N, and

2. any other industrial user that:

   (i) discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, non–contact cooling and boiler blow-down wastewater) or;

   (ii) contributes a process wastestream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant or;

   (iii) is designated as such by the Control Authority on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement.

"Small Municipal Separate Storm Sewer System" means all separate storm sewers that are:

1. Owned or operated by the United States, a State Agency, city, town, county, utility district, metropolitan government, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law or a designated and approved management agency that discharges to waters of the United States; and,

2. Not defined as "large" or "medium" municipal separate storm sewer systems.

(Note: This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.)

"Small Pretreatment Program" means an approved program, which has issued permits, for the purpose of controlling the discharge of process wastewater, to less than eight significant industrial users.

"Stormwater" means rain water, snow melt, and surface runoff and drainage.

"Stormwater Discharges Associated with Construction Activity" means the discharge from any conveyance which is used for collecting and conveying stormwater and which is directly related to construction activity.

"Stormwater Discharges Associated with Industrial Activity" means the discharge from any conveyance which is used for collecting and conveying stormwater and which is directly related to manufacturing, processing or raw materials storage area at an industrial plant.

(Rule 1200-04-11-01, continued)

"Treated Washwater Discharge" means treated wastewater from a washing process such as a laundromat, but not including rinseate from manufacturing processes.

"Urbanized Area (UA)" means a land area comprising one or more places-central place(s) and the adjacent densely settled surrounding area-that together have a residential population of at least 50,000 and an overall population density of at least 1,000 people per square mile.

"Watershed District" means a nonprofit corporation composed of not less than twenty percent (20%) of such landowners who represent at least twenty five percent (25%) of the acreage within the defined geographic area, and recognized by the state soil conservation committee.

"Watershed District Project" means a project sponsored or conducted by a watershed district.

"401 Certification" means certification under section 401 of the Federal Water Pollution Control Act, for activities that require permits issued by the U.S. Corps of Engineers for discharges of dredge and fill material under section 404 of that Act.

Authority: *T.C.A. §§69-3-105(b) and 4-5-201 et seq. and 68-203-101 et seq.* ***Administrative History:*** *Original rule filed August 9, 1991; effective September 23, 1991. Amendment filed August 12, 1992; effective September 26, 1992. Amendment filed September 26, 1995; effective December 10, 1995. Amendment filed November 15, 2000; effective January 30, 2001. Amendment filed May 22, 2007; effective August 5, 2007.*

1200-04-11-.02 FEES.

(1) Types of Fees

(a) Application fees for permit issuance or renewal shall be paid in full upon submittal of an application. The Department will not process an application without having received the fee. No refunds of permit application fees may be made for any reason, other than as required by T.C.A. §68-203-101 et seq.

(b) Fees for 401 Certification of permits issued by the U.S. Army Corps of Engineers shall be sent to the Department by the applicant with either a copy of or reference to the application filed with the Corps.

(c) Permit annual maintenance fees shall be paid to the Department for every year the permit is in effect by the permittee. The annual maintenance fee shall be due within 45 days of issuance of an invoice.

(d) Plan review fees must be submitted before the review will be conducted or approval granted.

(2) Schedule of Fees

(a) The Application Fees for the processing of applications for 401 certifications and ARAP permits shall be as follows:

1. 401 Certification of 404 permit or ARAP (Capped at $5,000):

(i) Projects equal to or greater than 10 acres or equal to

(Rule 1200-04-11-.02, continued)

		or greater than 1,000 feet linear	$2,500
	(ii)	Projects less than 10 acres or less than 1,000 feet linear	$1,000
	(iii)	Watershed District Projects	$ 750
	(iv)	Personal Residence or Family Farm	$ 50
	(v)	Projects that replace, restore or repair public infrastructure or remediate damages from flooding or storm events and qualify for federal disaster assistance are exempt from Rules 1200-04-11-.02(2)(a)1(i), (ii), (iii) and (iv).	

(b) Construction Stormwater permits:

1.	Projects equal to or greater than 150 acres	$7,500
2.	Projects equal to or greater than 50 acres and less than 150 acres	$4,000
3.	Projects equal to or greater than 5 acres and less than 50 acres	$1,000
4.	Projects equal to or greater than 1 acre and less than 5 acres	$ 250
5.	Projects less than 1 acre	$ 0

(c) Permit Annual Maintenance Fees shall be as follows for these categories of permitted activities (Capped at $15,000):

1.		Gravel Dredging	$140*
2.		Gravel Dredging for Personal Residence or Family Farm	$0
3.		Major Industrial Treatment Facility:	
	(i)	Flow equal to or greater than 10 MGD	$10,380*
	(ii)	Flow equal to or greater than 1 MGD and less than 10 MGD	$8,650*
	(iii)	Flow equal to or greater than 0.5 MGD and less than 1 MG	$6,920*
	(iv)	Flow equal to or greater than 0.1 MGD and less than 0.5 MGD	$5,190*
	(v)	Flow less than 0.1 MGD	$3,460*
4.		Minor Industrial Treatment Facility:	
	(i)	Flow equal to or greater than 10 MGD	$6,920*
	(ii)	Flow equal to or greater than 1 MGD and less than 10 MGD	$5,190*

(Rule 1200-04-11-.02, continued)

	(iii)	Flow equal to or greater than 0.5 MGD and less than 1 MGD	$3,460*
	(iv)	Flow equal to or greater than 0.1 MGD and less than 0.5 MGD	$1,380*
	(v)	Flow less than 0.1 MGD	$690*
5.		Treated Washwater Dischargers with flows <0.001 MGD	$140*
6.		Stormwater Discharge Permits associated with Industrial Activities:	
	(i)	Facilities equal to or greater than 500 acre	$970*
	(ii)	Facilities equal to or greater than 400 acres and less than 500 acres	$900*
	(iii)	Facilities equal to or greater than 300 acres and less than 400 acres	$830*
	(iv)	Facilities equal to or greater than 200 acres and less than 300 acres	$760*
	(v)	Facilities equal to or greater than 100 acres and less than 200 acres	$690*
	(vi)	Facilities equal to or greater than 50 acres and less than 100 acres	$620*
	(vii)	Facilities equal to or greater than 25 acres and less than 50 acres	$550*
	(viii)	Facilities equal to or greater than 10 acres and less than 25 acres	$480*
	(ix)	Facilities equal to or greater than 5 acres and less than 10 acres	$420*
	(x)	Facilities equal to or greater than 1 acres and less than 5 acres	$350*
	(xi)	Facilities equal to or greater than 0 acres and less than 1 acre	$0
7.		Sewage Treatment Facility Flow:	
	(i)	Flow equal to or greater than 5 MGD	$10,380*
	(ii)	Flow equal to or greater than 4.5 MGD and less than 5 MGD	$10,030*
	(iii)	Flow equal to or greater than 4 MGD and less than 4.5 MGD	$9,690*
	(iv)	Flow equal to or greater than 3.5 MGD and less than 4 MGD	$9,340*
	(v)	Flow equal to or greater than 3 MGD and less than 3.5 MGD	$9,000*

(Rule 1200-04-11-.02, continued)

	(vi)	Flow equal to or greater than 2.5 MGD and less than 3 MGD	$8,300*
	(vii)	Flow equal to or greater than 2 MGD and less than 2.5 MGD	$7,610*
	(viii)	Flow equal to or greater than 1.5 MGD and less than 2 MGD	$6,920*
	(ix)	Flow equal to or greater than 1 MGD and less than 1.5 MGD	$6,230*
	(x)	Flow equal to or greater than 0.75 MGD and less than 1 MGD	$5,540*
	(xi)	Flow equal to or greater than 0.5 MGD and less than 0.75 MGD	$4,840*
	(xii)	Flow equal to or greater than 0.25 MGD and less than 0.5 MGD	$3,460*
	(xiii)	Flow equal to or greater than 0.1 MGD and less than 0.25 MGD	$1,730*
	(xiv)	Flow equal to or greater than 0.075 MGD and less than 0.1 MGD	$1,040*
8.		Small Mechanical Facility flow less than 0.075 MGD	$690*
9.		Small Non-Mechanical Facility flow less than 0.075 MGD	$350*
10.		Non-Discharging Facility:	
	(i)	Influent flow equal to or greater than 0.5 MGD	$4,840*
	(ii)	Influent flow equal to or greater than 0.1 MGD and less than 0.5 MGD	$2,770*
	(iii)	Influent flow equal to or greater than 0.075 MGD and less than 0.1 MGD	$1,380*
	(iv)	Influent flow less than 0.075 MGD	$350*
	(v)	Satellite collection systems	$1,380*
	(vi)	Pump and haul	$350*
11.		Other Waste or Wastewater Operations Requiring Permit	$1,380*
12.		General Permits (sources other than stormwater or concentrated animal feeding operation)	$350*
13.		Concentrated animal feeding operations covered by an individual permit	$350*
14.		Municipal Pretreatment Programs as defined in Rule 1200-04-11-.01(2)(a):	
	(i)	Large Pretreatment Program	$6,920*
	(ii)	Medium Pretreatment Program	$4,150*
	(iii)	Small Pretreatment Program	$1,380*
15.		Mining:	

(Rule 1200-04-11-.02, continued)

(i)	Area equal to or greater than 500 acres	$6,920*
(ii)	Area equal to or greater than 400 acres and less than 500 acres	$6,230*
(iii)	Area equal to or greater than 300 acres and less than 400 acres	$5,540*
(iv)	Area equal to or greater than 200 acres and less than 300 acres	$4,840*
(v)	Area equal to or greater than 100 acres and less than 200 acres	$4,150*
(vi)	Area equal to or greater than 75 acres and less than 100 acres	$3,460*
(vii)	Area equal to or greater than 50 acres and less than 75 acres	$2,770*
(viii)	Area equal to or greater than 25 acres and less than 50 acres	$2,080*
(ix)	Area equal to or greater than 10 acres and less than 25 acres	$1,380*
(x)	Area equal to or greater than 5 acres and less than 10 acres	$1,040*
(xi)	Area less than 5 acres	$690*

(Note: Fees are based on area being mined or area not yet reclaimed.)

16. Mining Reclamation $350*

17. Stormwater Discharge Permits for Municipal Separate Storm Sewer Systems (MS4):

(i)	Large MS4s	$10,380*
(ii)	Medium MS4s	$6,920*
(iii)	Small MS4s	$3,460*

*This fee increase will be phased in as follows. Those permittees whose annual maintenance fee falls due from July 1, 2009 to December 31, 2009, will have to pay, at that due date, only the amount they would have paid under these rules prior to this increase and the payment for the difference between that amount and the total shown above will be due in January, 2010. For those permittees whose annual maintenance fee falls due in the second half of the fiscal year 09-10, payment of the entire amount shown above shall be due on the due date.

(d) Plan Review Fees shall apply to new facilities as well as the expansion or modification of existing facilities. If the submittal includes more than one listed category, the fee will be the sum of the fees listed for each individual category. Review of plans documents will not commence until all fees required by these rules are paid in full. Plan Review Fees shall be as follows (Capped at $1,500):

1. Major Industrial Wastewater Treatment Facility:

(i)	Flow equal to or greater than 5 MGD	$1,500
(ii)	Flow less than 5 MGD	$1,000

2. Minor Industrial Wastewater Treatment Facility:

(Rule 1200-04-11-.02, continued)

(i)	Flow equal to or greater than 0.1 MGD	$	500
(ii)	Flow less than 0.1 MGD	$	250

3. Sewage Treatment Facility:

(i)	Flow equal to or greater than 5 MGD	$	1,500
(ii)	Flow equal to or greater than 1MGD and less than 5 MGD	$	1,000
(iii)	Flow equal to or greater than 0 .075 MGD and less than 1 MGD	$	500
(iv)	Flow less than 0.075 MGD	$	250

4. Collection Systems:

(i) Collection Lines — $25.00 per 250 feet or portion thereof of sewage collection line excluding service laterals. Total fee not to exceed $1,500.

5. Equalization Basins:

(i)	Holding capacity equal to or greater than 5 million gallons (MG)	$	300
(ii)	Holding capacity equal to or greater than 1 MG and less than 5 MG	$	200
(iii)	Holding capacity equal to or greater than 0.075 MG and less than 1 MG	$	100
(iv)	Holding capacity less than 0.075 MG	$	50

6. Pumping Stations:

(i)	Design capacity equal to or greater than 5 MGD	$	300
(ii)	Design capacity equal to or greater than 1 MGD and less than 5 MGD	$	200
(iii)	Design capacity equal to or greater than 0.075 MGD and less than 1 MGD	$	100
(iv)	Design capacity less than 0.075 MGD (Does not include grinder pumps for septic tanks and septic tank effluent pumps)	$	50

7. Mining Operations:

(i)	Coal	$	250
(ii)	Non-Coal — $25.00 per acre, not to exceed	$	1,500
(iii)	Reclamation	$	250

(iv) Quarries $ 250

8. Wastewater Plant and/or Collection System Modification:

The plans review fee for modifications to wastewater plants and/or collection systems shall be 20% of the full review fee based on the category and size of the resulting facility.

(e) Delegated Plans Review Authority:

Units of local government, which have been granted plans review authority, shall pay an annual fee of $1,000. Failure of local government to pay this fee will be cause for the revocation of plans review authority.

(3) Collection of Fees

(a) Fees resulting from application for a permit, maintenance of a permit or plans review, shall be made Payable and Mailed to the Department of Environment and Conservation; Attention: Environmental Protection Fees — Water Pollution Control.

(b) Payments shall be clearly identified as to the permit, application, or plans to which they apply.

(c) Fees are to be paid in full by the due date or, if required, at time of application.

(4) Penalties

(a) Any unpaid fee or portion thereof is subject to penalty.

(b) For any part of any fee imposed but not paid within the specified period of fifteen (15) days of the due date, a penalty of five percent (5%) of the amount due shall at once accrue and be added thereto. Thereafter, on the first day of each month during which any part of any fee or any prior accrued penalty remains unpaid, an additional penalty of five percent (5%) of the then unpaid balance shall accrue and be added thereto. In addition, the fees not paid within fifteen (15) days after the due date shall bear interest at the maximum lawful rate from the due date to the date paid. However, the total of the penalties and interest that accrue pursuant to this paragraph shall not exceed three (3) times the amount of the original fee.

(c) The Commissioner of Environment and Conservation may file an action in the Chancery Court of Davidson County or any Court of competent jurisdiction for a judgment in the amount owed the State under the Water Quality Control Act, Tennessee Code Annotated, Section 69-3-101 et seq.

(5) Hearings

(a) Any person required to pay any fee specified in this rule, who disagrees with the calculation or applicability of the fee, may petition the Water Quality Control Board for a hearing. In order to perfect a hearing, the objecting party must present to the Technical Secretary of the Board, not later than fifteen (15) days after the fee due date:

1. a petition for hearing, and

2. the total amount of the fee.

(Rule 1200-04-11-.02, continued)

(b) Such hearing shall be in accordance with contested case provisions set forth in Title 4, Chapter 5, Tennessee Code Annotated.

(c) If the fee was improperly assessed, the Technical Secretary shall return the amount determined to be improperly assessed plus interest on the excess accrued from the date the fee was presented to the Technical Secretary.

Authority: *T.C.A. §69-3-105(b), 4-5-201 et seq., 68-203-101 et seq. and HB2389/SB2357, Sections 1 through 10.* ***Administrative History:*** *Original rule filed August 9, 1991; effective September 23, 1991. Amendment filed August 12, 1992; effective September 26, 1992. Amendment filed September 26, 1995; effective December 10, 1995. Amendment filed November 15, 2000; effective January 30, 2001. Amendment filed May 22, 2007; effective August 5, 2007. Repeal and new rule filed March 31, 2008; effective June 14, 2008. Public necessity rule filed June 30, 2009; effective through December 12, 2009. Amendments filed September 9, 2009; effective December 8, 2009.*

1200-04-11-.03 SCHEDULE FOR TIMELY ACTION.

(1) General

(a) Permits required under Rule 1200-04-11-.02 (2)(a)1 shall be issued or denied within 90 days of receipt of the application. If a public hearing is scheduled, in response to comments by interested parties or the applicant requests additional time, an additional 90 days may be added to the allowable timeframe.

(b) Permits required under Rule 1200-04-11-.02 (2)(a)2 shall be issued or denied within 30 days of receipt of the application.

(c) Permits for major industries or sewage treatment facilities with flow over 1 MGD shall be issued or denied within 1 year of receipt of the application. If a public hearing is scheduled, in response to comments by interested parties, additional time is requested by the applicant, or EPA requests additional time, an additional 90 days may be added to the allowable timeframe.

(d) All other permits for wastewater treatment systems required under Rule 1200-04-11-.02 (b) shall be issued or denied within 180 days of receipt of the application. If a public hearing is scheduled, in response to comments by interested parties, additional time is requested by the applicant, or additional time is requested by EPA, an additional 90 days may be added to the allowable timeframe.

(e) The Division shall complete its review of plan documents within 30 days of receipt, provided the plans contain sufficient information to make the necessary determinations.

(f) If the Division fails to issue or deny the permit or review plans within the time frames specified above, the permit application filing/processing fee and/or plans review fee will be refunded to the applicant.

(g) A quarterly report will be provided to the Water Quality Control Board. The report shall contain information on the timeliness of permit processing and plans review.

Authority: *T.C.A. §§69-3-105(b) and 4-5-201 et seq. and 68-203-101 et seq.* ***Administrative History:*** *Original rule filed August 9, 1991; effective September 23, 1991. Amendment filed August 12, 1992; effective September 26, 1992. Amendment filed September 26, 1995; effective December 10, 1995. Amendment filed November 15, 2000; effective January 30, 2001. Amendment filed May 22, 2007; effective August 5, 2007.*

RULES
OF
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER POLLUTION CONTROL
WATER QUALITY CONTROL BOARD

CHAPTER 1200-4-12
SILVICULTURAL ACTIVITY STOP WORK ORDERS

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1200-4-12-.01 SILVICULTURAL ACTIVITY STOP WORK ORDERS - GENERAL.

(1) General

(a) Purpose, Scope and Applicability

The purpose of this rule chapter is to implement the amendment to the Tennessee Water Quality Control Act, Tennessee Code Annotated, §§69-3-101 et seq., by Public Chapter 680 of the Acts of 2000. This statute gives the Commissioner new authority to alleviate pollution of waters of the state when caused by silvicultural activities due to the operator's failure or refusal to employ forestry best management practices (BMPs). Under the Act, the Commissioner of the Department of Environment and Conservation may issue a stop work order to the operator of the silvicultural activities, the order remaining in force until such time as compliance is achieved. This rule chapter also implements a requirement for notification of silvicultural activities to the Commissioner of Environment and Conservation and to the Commissioner of Agriculture prior to commencement of any such activities by operators who have been formally found to have violated the Tennessee Water Quality Control Act related to silvicultural activities within the past two years.

These rules are promulgated specifically in response to the directive in §6 of Public Chapter 680 for criteria and procedures for the issuance, appeal, and suspension of Stop Work Orders.

(b) Use of Number and Gender-As Used in these Rules:

1. Words in the masculine gender also include the feminine and neuter genders; and

2. Words in the singular include the plural; and

3. Words in the plural include the singular.

(c) Rule Structure - These Rules are organized, numbered, and referenced according to the following outline form:

(1) paragraph

(a) subparagraph

1. part

(i) subpart

(I) item

I. subitem

A. section

(A) subsection

(2) Definitions

When used in this Rule the following terms have the meanings given below unless otherwise specified:

"Act" means P.Ch. 680 of the Acts of 2000.

"Commissioner" means the Commissioner of the Department of Environment and Conservation, or in the event of the Commissioner's absence, or a vacancy in the office of Commissioner, the Deputy Commissioner.

"Date of a finding of violation" means the date of issuance of a Commissioner's Order or Stop Work Order or the date of entry of a court order.

"Finding of violation" means a Commissioner's Order, a Stop Work Order, or a ruling, order, or judgment of a court that makes a finding that an operator has violated the Water Quality Control Act in the conduct of silvicultural activities.

"Forestry best management practices" or "BMP's" mean those land and water resource conservation measures that prevent, limit, or eliminate water pollution for forest resource management purposes, as provided in Tennessee Department of Agriculture rules for forestry best management practices, Rule Chapter 0800-7-2 and the interim forestry BMP's specifically identified by the Department of Agriculture pursuant to §1 of the Act.

"Silvicultural activities" means those forest management activities associated with the harvesting of timber and including without limitation the construction of roads and trails.

"Operator" as used in context of silvicultural activities, means any person(s) that conducts or exercises control over any silvicultural activities; provided, however, that the term "operator" shall not include an owner if the silvicultural activities are being conducted by an independent contractor.

"Owner" as used in the context of silvicultural activities, means any person(s) that owns or leases land on which silvicultural activities occur or owns timber on land on which silvicultural activities occur.

"Stop Work Order" means an order issued by the Commissioner of the Department of Environment and Conservation requiring the operator to immediately cease part or all silvicultural activities.

Authority: *T.C.A. §§4-5-201 et seq., 69-3-105(b), and Acts of 2000, Public Chapter 680, §6.* ***Administrative History:*** *Original rule filed July 18, 2001; effective October 1, 2001.*

1200-4-12-.02 SILVICULTURAL ACTIVITY STOP WORK ORDERS – PROCEDURES.

(1) Procedures

(a) Upon receipt by either the Tennessee Department of Environment and Conservation (TDEC) or Tennessee Department of Agriculture (TDA) of a complaint alleging that water pollution has

occurred as a result of silvicultural activities, either TDEC or TDA, or both will conduct an investigation of the complaint.

(b) The operator will be given the opportunity to employ forestry best management practices, or other such remedial actions as are necessary, to come into compliance prior to commencing to obtain a Stop Work Order, except when the Commissioner deems otherwise necessary to address water pollution.

(c) Following a joint investigation or site visit by TDEC and/or TDA, if a Stop Work Order is deemed necessary to abate pollution of waters of the State, TDEC shall begin procedures to issue a Stop Work Order when all of the following three (3) criteria are met:

1. An operator has failed or refused to use forestry best management practices (BMP); and

2. A point source discharge has been created as a result of failure or refusal to use BMPs; and

3. Waters of the State have been polluted as a result of silvicultural activities.

(d) A request for Stop Work Order will be completed by TDEC staff, and a Stop Work Order will be submitted to the Commissioner for his consideration. The Commissioner of the Department of Environment and Conservation may issue the Stop Work Order against the operator, following consultation with the Commissioner of Agriculture.

(e) The Stop Work Order

1. The Stop Work Order shall contain at a minimum the following information:

(i) The name and address of the operator;

(ii) The name and address of the owner if different than the operator;

(iii) The location of the silvicultural activity;

(iv) The waterbody affected by the pollution;

(v) A description of the failure or refusal to use BMPs;

(vi) The nature of the point source discharge created by the activity; and

(vii) A description of the water pollution which has occurred.

2. The Stop Work Order will be hand delivered to the operator and the owner on the site or their last known addresses, if they are in the state. If they are out of state, it will be sent by certified mail, return receipt requested.

3. The Stop Work Order shall require that the operator cease the silvicultural activities that are contributing to such pollution. This may include all of the silvicultural activities if they all contribute to the pollution.

4. The Stop Work Order shall remain in effect until the operator installs forestry best management practices that eliminate existing pollution and prevent further pollution associated with the silvicultural activities.

(Rule 1200-4-12-.02, continued)

Authority: *T.C.A. §§4-5-201 et seq., 69-3-105(b), and Acts of 2000, Public Chapter 680, §6.* ***Administrative History:*** *Original rule filed July 18, 2001; effective October 1, 2001.*

1200-4-12-.03 NOTIFICATION BY OPERATORS WITH A FINDING OF VIOLATION.

(1) No operator with a finding of violation that has not been overturned or reversed on appeal shall begin silvicultural activities within two years of the date of the finding of violation unless the operator has filed a written notification of the start of said silvicultural activities with the Commissioner of Agriculture and with the Commissioner of Environment and Conservation as required by paragraph 1200-4-12-.03(2).

(2) At least ten (10) days prior to commencement of silvicultural activities, the operator with such a finding of violation shall file a written notification with the Commissioner of Agriculture and with the Commissioner of the Department of Environment and Conservation. Such notification shall include the following information:

(a) The name and address of the owner, and the name and address of the operator, if different than the owner; and

(b) The location of the silvicultural activities and estimated acreage; and

(c) The anticipated beginning date for, and the anticipated duration of, the silvicultural activities.

Authority: *T.C.A. §§4-5-201 et seq., 69-3-105(b), and Acts of 2000, Public Chapter 680, §6.* ***Administrative History:*** *Original rule filed July 18, 2001; effective October 1, 2001.*

1200-4-12-.04 PENALTIES.

(1) As provided in §5 of the Act, if an operator fails to give the notice required by rule 1200-4-12-.03 and §3 of the Act, or to comply with a stop work order issued pursuant to rule 1200-4-12-.02 and §2 of the Act, the Commissioner may assess civil penalties against the operator of up to $10,000.00 per day for each day such failure continues pursuant to Tennessee Code Annotated, §69-3-115(a)(1)(E).

Authority: *T.C.A. §§4-5-201 et seq., 69-3-105(b), and Acts of 2000, Public Chapter 680, §6.* ***Administrative History:*** *Original rule filed July 18, 2001; effective October 1, 2001.*

1200-4-12-.05 MEETINGS, APPEALS, AND HEARINGS.

(1) An appeal or request for hearing of any Stop Work Order issued by the Commissioner of the Department of Environment and Conservation shall be made to the Water Quality Control Board in writing by the operator and filed with the Commissioner of the Department of Environment and Conservation within thirty days of receipt of notice of the Stop Work Order.

(2) If an appeal or hearing is requested, the operator shall also be afforded the opportunity to meet with the Commissioner of the Department of Environment and Conservation or, at the Commissioner's option, meet with the deputy or assistant commissioner, within three (3) working days after the hearing request is filed, to discuss the alleged violation and show cause why a stop work order should not have been issued. Such a meeting shall be an informal event in the nature of a settlement discussion and shall not be a contested case within the meaning of the Uniform Administrative Procedures Act, §§4-5-101 et seq.

(3) If, as a result of such a meeting, the Commissioner, or if the meeting was with the deputy or assistant commissioner, such deputy or assistant commissioner decides to make any modification or revocation of the Stop Work Order, it shall be accomplished in writing after consultation with the Commissioner

(Rule 1200-4-12-.05, continued)

of the Department of Agriculture. Both the Stop Work Order and any document modifying or revoking it shall be public records.

(4) If the Commissioner, or if such meeting was held with the deputy or assistant commissioner, such deputy or assistant commissioner upholds the Stop Work Order, it shall remain in effect until resolution of the appeal or the operator comes into compliance.

(5) If no request for hearing is made within thirty (30) days of receipt of the Stop Work Order, the Stop Work Order becomes final and not subject to review. The Commissioner may seek injunctive relief in a court of competent jurisdiction, if necessary, to enforce any final order.

(6) If an operator who files a request for a hearing before the Water Quality Control Board either does not seek the informal meeting described in paragraphs (2) through (4) of this rule, or is not satisfied with the result of such a meeting, the matter shall be resolved through the process for contested case hearings before the Board under the Uniform Administrative Procedures Act, §§4-5-101 et seq.

Authority: *T.C.A. §§4-5-201 et seq., 69-3-105(b), and Acts of 2000, Public Chapter 680, §6.* ***Administrative History:*** *Original rule filed July 18, 2001; effective October 1, 2001.*

RULES
OF
THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER POLLUTION CONTROL

CHAPTER 1200-4-13
INTER-BASIN WATER TRANSFERS

TABLE OF CONTENTS

1200-4-13-.01 PURPOSE, SCOPE, AND APPLICABILITY

(1) Purpose of The Inter-Basin Water Transfer Act

As the population and demand for water resources grow, it is prudent to engage in planning for the future and to have an explicit mechanism in place to regulate proposals for the diversion of water from one river basin to another. By removing water from rivers, such inter-basin transfers raise issues of the protection of the public health, safety, welfare and the environment, as the water is no longer available for use in the original stream. The primary purpose of The Inter-basin Water Transfer Act is to allow regulation on the basis of the quantity of water in river basins. Although the common law addresses some of these concerns, it relies on after-the-fact litigation rather than a modern regulatory system. As The Inter-basin Water Transfer Act is remedial and police power legislation, the General Assembly has declared that it shall be liberally construed to effectuate its purpose.

(2) Purpose of this Rule Chapter

The purpose of this Rule Chapter is to implement the Inter-basin Water Transfer Act through establishing procedures and requirements for permit application, processing, terms and conditions for permits, and otherwise regulate the inter-basin transfer of water.

(3) Who must apply for a permit

(a) All persons or entities:

1. which have been granted powers by the State of Tennessee to acquire water, water rights and associated property by eminent domain or condemnation; or

2. which acquire or supply water for the use or benefit of public water supply systems as defined in Title 68, Chapter 221, Section 703,

shall, when proposing a new or increased withdrawal of surface water or ground water for the purpose of transferring and/or diverting some or all of it out of a river basin either directly or through one (1) or more intermediaries, first apply for and obtain a permit from the commissioner, or his or her designee, prior to such diversion or transfer; provided, however, that in the case of ground water withdrawal this section shall only apply if the loss of the ground water has a significant potential to adversely affect the flow of a Tennessee surface water.

(b) Subparagraph (a) states who must apply for a permit as it is stated in P.Ch. 854. Without limiting what is stated there, the following are examples of entities that must apply for a permit:

(Rule 1200-4-13-.01, continued)

1. A new public water system whose service area will include an area that is outside of the basin of origin;

2. A public water system that proposes a new withdrawal point that is not in the same basin as some or all of the system;

3. A public water system that proposes to increase the amount it is withdrawing in order to transfer some or all of it to a system in a basin different from the basin of origin;

4. A public water system that proposes to increase the amount it is withdrawing in order to transfer some or all of it to another system in the basin of origin that will then transfer the water to a system in a basin different from the basin of origin; and

5. A private individual or corporation that proposes to withdraw water and transfer it to a public water system in a basin different from the basin of origin, either directly or through an intermediary.

Authority: *T.C.A. §§69-3-105, P.Ch. 854, Acts of 2000, 4-5-101 et seq.* ***Administrative History:*** *New Rule filed December 29, 2000; effective March 14, 2001.*

1200-4-13-.02 DEFINITIONS

When used in this Rule the following terms have the meanings given below unless otherwise specified:

"Act" means The Inter-basin Water Transfer Act, P.Ch. 854 of the Acts of 2000.

"Basin" or "river basin" means the entire topographic extent of the ten watersheds and combinations of watersheds named in §4 of the Act. Maps of these basins may be viewed at the department's web site, currently at: http://www.state.tn.us/environment/epo/basin/index.html.

"Basin of origin" means the river basin where the point of withdrawal for a transfer is located.

"Board" means the Water Quality Control Board.

"Commissioner" means the commissioner of the department of environment and conservation or the commissioner's duly authorized representative, or in the event of the commissioner's absence, or a vacancy in the office of commissioner, the deputy commissioner.

"Department" means the department of environment and conservation.

"Downstream basin" means a basin that is downstream of the basin of origin.

"Intermediaries" means any water systems or other persons that receive water from a withdrawing system and either transfer it to another basin or pass it on to another intermediary.

"Losing river" or "Losing river basin" means a river or river basin which sustains a decrease in water as the result of a diversion or transfer of water to a different river basin and there is no significant return of the water to the river or river basin of origin.

"Permit" means an Inter-basin Water Transfer Permit. Permits are of two types, individual permits are issued for particular transfers after an application is made describing the particular project as provided in rules .03 through .06; general permits are issued by the commissioner for categories or classes of transfers and a person may be authorized for a transfer under the coverage of a general permit by filing a Notice of Intent, as provided in rule .07.

(Rule 1200-4-13-.02, continued)

"Person" means any or all persons, including individuals, firms, partnerships, associations, limited liability companies, public or private institutions, municipalities or political subdivisions, federal or state governmental agencies, or private or public corporations organized under the laws of this state or any other state or country.

"Potentially affected communities" means those units of local government, e.g., municipalities, counties, or utility districts, that have a public water system that withdraws water from a river basin or municipalities that are located downstream of a proposed transfer within fifty (50) river miles of the proposed withdrawal point.

"Potentially affected water users" means potentially affected communities and persons with an NPDES permit for a discharge, persons with a permit for a withdrawal of water, and downstream of a proposed transfer within fifty (50) river miles of the proposed withdrawal point.

"Protected Area" means a basin or portions of a basin wherein the demands upon supply made by water users have developed or threaten to develop to such a degree as to create a water shortage. These areas shall be determined and delineated by the Water Quality Control Board after giving due notice and conducting a public hearing.

"Receiving river basin" means a river basin which is the recipient of an increase in water, over and above that occurring naturally, as the result of a transfer of water from a different river basin.

"Return of water" or "return" means water that is returned to the basin of origin, or a downstream basin after a transfer to a different basin.

"Seven day, ten year low flow" or "7Q10 flow" or "low flow" means the lowest average daily flow for a duration of seven consecutive days with a recurrence interval of ten years and which is determined for the point of withdrawal from an unregulated stream, or for a withdrawal from a regulated stream, the minimum critical flow occurring once in ten years as determined by an analysis of records of operation and approved by the Commissioner.

"Significant potential to affect the flow" means, in the context of whether a ground water withdrawal is likely to affect a surface water, a withdrawal of ground water in a location that:

(a) is in close proximity horizontally and vertically to a stream; and

(b) has ground water with a significant degree of hydraulic connection to the surface water.

"Surface water" means any water located on the land surface which is not derived by pumping from ground water.

"Transfer" means the withdrawal, diversion, or pumping of surface water from one river basin and the use or discharge of all or any part of the water in a basin different from the basin of origin.

"Transfer facility" means any natural or man-made structure used to effect a transfer including, but not limited to, pumps, pipelines, canals, storage units, water treatment units and wastewater treatment units.

"Withdrawal" means the diversion or pumping of water out of a surface stream or from ground water if the loss of the ground water has a significant potential to adversely affect the flow of a Tennessee surface water in the basin of origin, whether or not there is a transfer.

Authority: *T.C.A. §§69-3-105, P.Ch. 854, Acts of 2000, 4-5-101 et seq.* ***Administrative History:*** *New rule filed December 29, 2000; effective March 14, 2001.*

1200-4-13-.03 INDIVIDUAL PERMIT APPLICATIONS

(1) Information required in a permit application.

Any person required to apply for a permit for an inter-basin water transfer under rule 1200-4-13-.01(3) and §5 of the Act shall submit an application for such permit on forms furnished, upon request, by the commissioner. The application shall require an applicant to provide the commissioner the following information:

(a) The volume of the proposed withdrawal and the proposed transfer stated in gallons per day that the applicant seeks to be authorized;

(b) Identification of all of the withdrawal, return, and transfer points;

(c) The volume of water that will be returned to the basin of origin or a downstream basin;

(d) The peak capacity of each major component in the proposed withdrawal and transfer facilities;

(e) Engineering and economic justification for the capacity of each major component of the proposed withdrawal and transfer facilities;

(f) An assessment of the hydraulic and environmental impacts of the withdrawal on the losing river;

(g) An engineering, environmental, and economic assessment of the feasibility of utilizing alternate water sources by the water system in the receiving basin;

(h) A listing of conservation programs or practices occurring or proposed of the system in the receiving river basin;

(i) The proposed date upon which the water transfer is to commence;

(j) The purpose and justification for the proposed transfer; and

(k) Any other appropriate information deemed necessary by the commissioner for review of the proposed transfer.

(2) All permit applications shall be signed as follows:

(a) For a corporation. By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation.

(b) For a partnership or sole proprietorship. By a general partner or the proprietor, respectively; or

(c) For a municipality, state, federal, or other public agency. By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes: (i) The chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA).

(3) Interface with other required permits under the Act.

(a) In some situations an activity may have to apply for both an inter-basin transfer permit and a permit under the Water Quality Control Act for the withdrawal. The latter is sometimes referred

(Rule 1200-4-13-.03, continued)

to as an Aquatic Resource Alteration Permit (ARAP). In such a situation the Division of Water Pollution Control shall have the applicant file one application for both permits that contains all information necessary for both and then shall process the application and either issue it with all conditions required by both Acts or deny it as required by either Act. The regulations for ARAP permits are found at 1200-4-7-.01 et seq.

(4) Application Fees

The application fees for individual inter-basin transfer permits shall be $250.00 for a flow less than or equal to 125,000 gpd; $500.00 for a flow greater than 125,000 gpd and less than or equal to 250,000 gpd; $750.00 for a flow greater than 250,000 gpd and less than or equal to 375,000 gpd; and $1,000.00 for a flow greater than 375,000 gpd and less than or equal to 500,000 gpd. Above 500,000 gpd, the fee shall be $1,000 for each 500,000 gpd or fraction thereof. These flows shall be such flows authorized to be transferred by the permit. This shall be calculated based upon the maximum amount authorized by the permit. This fee shall apply to new applications, renewals, or those modifications that extend the term of the permit. If an applicant for a permit modification only seeks an increase of the amount authorized to be transferred for the same permit term, then the fee shall be calculated on the basis of the difference in the two amounts.

Authority: *T.C.A. §§69-3-105, P.Ch. 854, Acts of 2000, 4-5-101 et seq.* ***Administrative History:*** *New rule filed December 29, 2000; effective March 14, 2001.*

1200-4-13-.04 PUBLIC INVOLVEMENT

(1) After receipt of an application, the department staff shall approve a Public Notice to seek public participation and comment on the application. The approved Public Notice shall be distributed to interested persons and shall be circulated within thirty days of receipt of a completed application as follows:

(a) In order to inform interested and potentially interested persons of the proposed activity, the Public Notice will include the following information:

1. Name, address, and telephone number of the applicant;

2. Name and address of TDEC contact person;

3. A brief description of the proposed withdrawal and transfer, including the volumes;

4. The names of the specific waters affected by the proposed activity as well as the basin of origin and the receiving basin;

5. The purpose of the proposed transfer;

6. The procedure to submit comments on the proposed activity and the close of the comment period which shall not be sooner than thirty (30) days from receipt of the application;

7. The procedure for requesting a public hearing; and

8. A brief description of the procedure for the commissioner to make a final determination to issue a permit.

(b) TDEC will distribute the approved Public Notice to interested persons who have requested TDEC notify them of inter-basin transfer permit applications and by posting it on the TDEC website. TDEC will also distribute the Notice to the individuals on the mailing list maintained

(Rule 1200-4-13-.04, continued)

by the Permit Section, Division of Water Pollution Control and to the individuals on the mailing list maintained by the Natural Resources Section, Division of Water Pollution Control.

(c) The Applicant shall distribute the approved Public Notice as follows:

1. Publish a notice of the permit application once a week for four consecutive weeks in a newspaper of general circulation in each potentially affected community in the river basin of origin;

2. Provide notice of the application to a responsible official with each potentially affected community and water user within the proposed basin of origin by certified mail, return receipt requested; and

3. Post a minimum of three public notices in public buildings, e.g., courthouses, libraries, city halls, in each potentially affected community in the river basin of origin.

(2) During the comment period, any person who may be adversely affected by a water transfer may submit a statement to the commissioner briefly outlining why the person believes he may be adversely affected and making any comments in regard to permit issuance or denial or permit conditions. Upon receipt of such a statement, the commissioner will schedule a public hearing on the permit application. Notice shall be given of the public hearing at least thirty days prior to the hearing.

Authority: *T.C.A. §§69-3-105, P.Ch. 854, Acts of 2000, 4-5-101 et seq.* ***Administrative History:*** *New rule filed December 29, 2000; effective March 14, 2001.*

1200-4-13-.05 CRITERIA FOR ISSUANCE OF INDIVIDUAL PERMITS

(1) In reviewing a permit application, the commissioner shall consider information developed through studies, analyses, or inquiries undertaken by the commissioner and information and comments submitted to the commissioner by the applicant, public agencies, affected persons, and the public.

(2) The following factors will be used by the commissioner in making a determination on a permit application:

(a) the quantity of the proposed withdrawal and the stream flow of the losing river(s), with special concern for low flow conditions;

(b) protection of the present uses, and consideration of projected stream uses of the losing river(s), including but not limited to, present agricultural, municipal, industrial and in-stream uses, and assimilative needs, with special concern for low flow conditions;

(c) protection of the water quality in the losing river(s) at low flow conditions;

(d) the reasonably foreseeable future water needs of the losing river basin;

(e) the reasonably foreseeable future water needs of the applicant for the water to be transferred, including methods of water use, conservation, and efficiency of use;

(f) the beneficial impact of any proposed transfer, and the capability of the applicant to implement effectively its responsibilities under the requested permit;

(g) the nature of the applicant's use of the water, to determine whether the use is reasonable and beneficial;

(Rule 1200-4-13-.05, continued)

(h) whether the proposed project shall promote conservation of water;

(i) the feasibility, the costs, and the environmental impacts of alternative sources of supply;

(j) the requirements of other state or federal agencies with authority relating to water resources;

(k) the availability of water in the losing river basin to respond to emergencies, including drought;

(l) whether the project shall have any beneficial or detrimental impact on navigation, hydropower or other power generation, fish and wildlife habitat, aesthetics, or recreation;

(m) the quantity, location, and timing of water returned to the basin of origin or a downstream basin;

(n) climatic conditions;

(o) any offsetting increases in flow in the basin of origin that may be arranged through permit conditions;

(p) the number of downstream river miles from which water will be diverted as a result of the transfer; and

(q) such other factors as are reasonably necessary to carry out the purposes of the Act and this rule chapter.

The foregoing list is to be used by the Commissioner as a basis both to deny permits and to impose conditions in permits that are issued. The Commissioner should use sound discretion in applying this list. It is not intended that the Commissioner must deny a permit if, in considering the list as a whole, it is the Commissioner's judgment that the permit should be issued. On the other hand, if one or two of the factors are of such overriding importance that it is the Commissioner's determination that they necessitate denial of a permit, that is an appropriate use of these factors.

(3) No transfer of water may be permitted at any time that would impair the classified uses of a losing river. Furthermore, no transfer of water shall cause the remaining flow in the losing river basin to be less than the seven day, ten year low flow as established prior to the inter-basin transfer unless a condition on the permit states that the transfer of water shall be required to cease when the instantaneous stream flow of the river of origin is equal to or less than a specified value.

Authority: *T.C.A. §§69-3-105, P.Ch. 854, Acts of 2000, 4-5-101 et seq.* ***Administrative History:*** *New rule filed December 29, 2000; effective March 14, 2001.*

1200-4-13-.06 TERMS AND CONDITIONS FOR INDIVIDUAL PERMITS

(1) Based upon review of all pertinent information the commissioner may issue, deny or issue a permit with conditions.

(2) When issuing a permit, the commissioner may include conditions in the permit, including but not limited to the following:

(a) The amount of water approved for transfer may be varied seasonally;

(b) The transfer of water shall be required to cease or decrease when the instantaneous stream flow of the river basin of origin is equal to or less than a specified value;

(c) Special provisions in order to promote an adequate water supply for the state or to mitigate any future adverse conditions resulting from the transfer;

(Rule 1200-4-13-.06, continued)

(d) Installation, maintenance and use of stream flow monitoring equipment;

(e) Establishment and reporting of transfer activities by the permittee.

(3) Upon the issuance by the Governor of a declaration or proclamation of an emergency relating to water resources, the commissioner may:

(a) waive the usual permitting requirements and issue a temporary emergency transfer permit. Any such permit must be limited to meet the needs created by the emergency, and any such permit may be issued for a period no longer than six months or the duration of the Governor's declaration or proclamation, whichever period is shorter; or

(b) modify or revoke and reissue any inter-basin transfer permit.

(4) Permits shall be issued for a renewable term of not more than five years. The commissioner may coordinate permits with the issuance cycle for NPDES permits in a watershed.

(5) Permits may contain such terms and conditions as are appropriate to carry out the purposes of the Act and this chapter. This includes, but is not limited to, provisions for filing periodic reports on the amount transferred and the flow in the losing river.

(6) Applicants may apply for permit modifications to increase the authorized transfer amount or for other reasons within the term of the permit.

(7) The Commissioner may modify, suspend, or revoke a permit for the reasons specified in section 7 of the Act.

(8) A transfer permit may be renewed following a full review by the commissioner of all past and current information relating to the transfer. An application for transfer permit renewal shall be filed by the applicant with the commissioner a minimum of six months prior to permit expiration.

(9) No permit may be transferred from one person to any other person except upon review and approval by the commissioner. In reviewing a request for a permit transfer, the commissioner may modify any of the permit terms.

Authority: *T.C.A. §§69-3-105, P.Ch. 854, Acts of 2000, 4-5-101 et seq.* ***Administrative History:*** *New rule filed December 29, 2000; effective March 14, 2001.*

1200-4-13-.07 GENERAL PERMITS

(1) The commissioner may issue a general permit for a category of transfer activities. Such permits shall be issued using the same process of public notification as would be used for an individual permit except that the department will bear the costs involved. Such permits shall require:

(a) that any person intending to make use of a general permit for authorization of any transfer must file a Notice of Intent and pay the processing fee specified in the general permit; and

(b) that the department will issue a response either confirming that the general permit is applicable or stating why it is not and directing the person to file an individual permit application.

Authority: *T.C.A. §§69-3-105, P.Ch. 854, Acts of 2000, 4-5-101 et seq.* ***Administrative History:*** *New rule filed December 29, 2000; effective March 14, 2001.*

(Rule 1200-4-13-.06, continued)

1200-4-13-.08 ENFORCEMENT AND PENALTIES

(1) Any person who

(a) fails to make a timely application or renewal application for a permit required by the Act;

(b) commences an inter-basin transfer without having obtained a permit under the Act and these rules;

(c) fails to comply with the terms of a permit; or

(d) fails to submit a true and accurate report required by the Act and these rules;

is subject to a penalty of up to $10,000.00 per day per violation as provided in §9 of the Act.

(2) The commissioner is also authorized to file an action in court to address any violation of the Act seeking any remedy available under the Act or at common law.

Authority: *T.C.A. §§69-3-105, P.Ch. 854, Acts of 2000, 4-5-101 et seq.* ***Administrative History:*** *New rule filed December 29, 2000; effective March 14, 2001.*

1200-4-13-.09 HEARINGS

(1) Any person actually aggrieved by the decision of the commissioner to grant or deny a transfer permit may request a hearing before the Water Quality Control Board by filing a written petition within 30 days of the issuance of the decision. With the exception of an applicant for a transfer permit, any person who has not submitted a written comment under 1200-4-13-.04 above, indicating how such person will be adversely affected by a water transfer in a manner or to a degree significantly different from the general public, is not an aggrieved party within the meaning of these rules.

(2) Any person named in a Commissioner's Order or assessment may request a hearing before the Water Quality Control Board by filing a written petition within 30 days of the receipt of the order or assessment. The petition shall set forth the grounds and reasons for the appeal. If such a petition is not filed within the 30 days, the violator shall be deemed to have consented to the assessment and it shall become final.

(3) Any such hearing will be conducted in accordance with the contested case provisions of the Uniform Administrative Procedures Act, T.C.A. §4-5-301 et seq.

Authority: *T.C.A. §§69-3-105, P.Ch. 854, Acts of 2000, 4-5-101 et seq.* ***Administrative History:*** *New rule filed December 29, 2000; effective March 14, 2001.*

1200-4-13-.10 ANNUAL CERTIFICATION

(1) On or before October 1 of every year, any person who operated an existing inter-basin transfer on May 31, 2000, either directly or through one or more intermediaries, shall file with the department a statement under oath certifying that there has been no increase in the transfer together with flow or pumping records documenting the amount transferred. The department may develop a form for this purpose.

Authority: *T.C.A. §§69-3-105, P.Ch. 854, Acts of 2000, 4-5-101 et seq.* ***Administrative History:*** *New rule filed December 29, 2000; effective March 14, 2001.*

1200-4-13-.11 PROTECTED AREAS

(Rule 1200-4-13-.11, continued)

Protected areas may be established through a rulemaking action by the Water Quality Control Board. Any person desiring to have such an area established may request this action by sending a letter to the Board stating the basis for such action. The Uniform Administrative Procedures Act also allows a more formal process for requesting a rulemaking action in T.C.A. §4-5-201.

Authority: *T.C.A. §§69-3-105, P.Ch. 854, Acts of 2000, 4-5-101 et seq.* ***Administrative History:*** *New rule filed December 29, 2000; effective March 14, 2001.*

RULES
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
WATER QUALITY CONTROL BOARD
DIVISION OF WATER POLLUTION CONTROL
CHAPTER 1200-4-14

PRETREATMENT REQUIREMENTS

TABLE OF CONTENTS

1200-4-14-.01 PURPOSE AND APPLICABILITY.

(1) This rule chapter establishes responsibilities of State, and local government, industry and the public to implement National Pretreatment Standards to control pollutants which pass through or interfere with treatment processes in domestic wastewater facilities (WWF) or which may contaminate sewage sludge.

(2) This regulation applies:

(a) To pollutants from non-domestic sources covered by Pretreatment Standards which are discharged into or transported by truck or rail or otherwise introduced into WWFs as defined in 1200-4-14-.03;

(b) To WWFs which receive wastewater from sources subject to National Pretreatment Standards;

(Rule 1200-4-14-.01, continued)

(c) To any new or existing source subject to Pretreatment Standards. National Pretreatment Standards do not apply to sources which discharge to a sewer which is not connected to a WWF Treatment Plant.

Authority: *T.C.A. §§ 69-3-101 et seq. and 4-5-201 et seq.* ***Administrative History:*** *Original rule filed March 16, 2007; effective May 30, 2007.*

1200-4-14-.02 OBJECTIVES OF GENERAL PRETREATMENT REGULATIONS.

By establishing the responsibilities of government and industry to implement National Pretreatment Standards this regulation fulfills three objectives:

(1) To prevent the introduction of pollutants into WWFs which will interfere with the operation of a WWF, including interference with its use or disposal of municipal sludge or the safety of the workers that operate the plant or maintain the collection system;

(2) To prevent the introduction of pollutants into WWFs which will pass through the treatment works or otherwise be incompatible with such works; and

(3) To improve opportunities to recycle and reclaim municipal and industrial wastewaters and sludges.

Authority: *T.C.A. §§ 69-3-101 et seq. and 4-5-201 et seq.* ***Administrative History:*** *Original rule filed March 16, 2007; effective May 30, 2007.*

1200-4-14-.03 DEFINITIONS.

(1) For the purposes of this rule chapter:

"Administrator" means the Administrator of the United States Environmental Protection Agency.

"Approval Authority" means the Division of Water Pollution Control Director or his/her representative(s).

"Approved WWF Pretreatment Program" or "Program" or "WWF Pretreatment Program" means a program administered by a WWF that meets the criteria established in this regulation and which has been approved by the Division.

"Best Management Practices" or "BMPs" means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to implement the prohibitions listed in 1200-4-14-.05(1)(a) and (2). BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage.

"Blowdown" means the minimum discharge of recirculating water for the purpose of discharging materials contained in the water, the further buildup of which would cause concentration in amounts exceeding limits established by best engineering practice.

"Bypass" means the intentional diversion of wastestreams from any portion of an Industrial User's treatment facility.

"Control Authority" refers to the WWF with an approved pretreatment program or the Approval Authority if the WWF does not have an approved pretreatment program.

(Rule 1200-4-14-.03, continued)

"Control mechanism" means a permit, order, or similar means of establishing enforceable requirements

"Director" means the chief administrative officer of the Division.

"Discharge" means either a direct discharge to waters of the state or an indirect discharge depending on the context in which it is used.

"Division" means the Tennessee Division of Water Pollution Control, or the Division's successor.

"Effluent limitation" means any restriction established by the commissioner, on quantities, rates, and concentrations of chemical, physical, biological and other constituents which are discharged into waters or adjacent to waters.

"Effluent limitations guidelines" means any effluent limitations guidelines issued by the Administrator pursuant to section 304(b) of the Federal Clean Water Act.

"Environmental Protection Agency" or "EPA" means the United States Environmental Protection Agency.

"EPA Water Management Division Director" means the Director of the Water Management Division within the appropriate Regional office of the Environmental Protection Agency or this person's delegated representative.

"Federal Clean Water Act" means the Federal Water Pollution Control Act as amended, 33 U.S.C. 1251, et seq.

"General control mechanism" means a control mechanism that authorizes activity by more than one entity

"Indirect Discharge" means the introduction of pollutants into a WWF from any non-domestic source.

"Industrial User" or "User" means a source of indirect discharge.

"Interference" means a discharge which, alone or in conjunction with a discharge or discharges from other sources, Inhibits or disrupts the WWF, its treatment processes or operations, or its sludge processes, use or disposal, or exceeds the design capacity of the treatment works or the collection system.

"National Pretreatment Standard," "Pretreatment Standard," or "Standard" means any regulation containing pollutant discharge limits promulgated by the EPA in accordance with section 307 (b) and (c) of the Federal Clean Water Act, which applies to Industrial Users. This term includes prohibitive discharge limits established pursuant to 1200-4-14-.05.

"New Source" means

(a) any building, structure, facility or installation from which there is or may be a discharge of pollutants, the construction of which commenced after the publication of proposed Pretreatment Standards under section 307(c) of the Federal Clean Water Act which will be applicable to such source if such Standards are thereafter promulgated in accordance with that section, provided that:

(Rule 1200-4-14-.03, continued)

1. The building, structure, facility or installation is constructed at a site at which no other source is located; or

2. The building, structure, facility or installation totally replaces the process or production equipment that causes the discharge of pollutants at an existing source; or

3. The production or wastewater generating processes of the building, structure, facility or installation are substantially independent of an existing source at the same site. In determining whether these are substantially independent, factors such as the extent to which the new facility is integrated with the existing plant, and the extent to which the new facility is engaged in the same general type of activity as the existing source should be considered.

(b) Construction on a site at which an existing source is located results in a modification rather than a new source if the construction does not create a new building, structure, facility or installation meeting the criteria of parts (a)2 or (a)3 of this definition but otherwise alters, replaces, or adds to existing process or production equipment.

(c) Construction of a new source as defined under this paragraph has commenced if the owner or operator has:

1. Begun, or caused to begin as part of a continuous onsite construction program:

(i) Any placement, assembly, or installation of facilities or equipment; or

(ii) Significant site preparation work including cleaning, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or

2. Entered into a binding contractual obligation for the purchase of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under this paragraph.

"Noncontact cooling water" means water used for cooling which does not come into direct contact with any raw material, intermediate product, water product or finished product.

"NPDES Permit" or "Permit" means a permit issued to a WWF pursuant to section 402 of the Federal Clean Water Act and T.C.A. section 69-3-108.

"Pass Through" means a discharge which exits the WWF into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the WWF's NPDES permit (including an increase in the magnitude or duration of a violation).

"Person" means any and all persons, including individuals, firms, partnerships, associations, public or private institutions, state and federal agencies, municipalities or political subdivisions, or officers thereof, departments, agencies, or instrumentalities, or public or private corporations or officers thereof, organized or existing under the laws of this or any state or country.

"Point source" means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock,

concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.

"Pollutant" means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal and agricultural waste discharged into water.

"Pollution" means the man-made or man induced alteration of the chemical, physical, biological and radiological integrity of water.

"Pretreatment" means the reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a WWF. The reduction or alteration may be obtained by physical, chemical or biological processes, process changes or by other means, except as prohibited by 1200-4-14-.06(4). Appropriate pretreatment technology includes control equipment, such as equalization tanks or facilities, for protection against surges or slug loadings that might interfere with or otherwise be incompatible with the WWF. However, where wastewater from a regulated process is mixed in an equalization facility with unregulated wastewater or with wastewater from another regulated process, the effluent from the equalization facility must meet an adjusted pretreatment limit calculated in accordance with 1200-4-14-.06(5).

"Pretreatment requirements" means any substantive or procedural requirement related to Pretreatment, other than a National Pretreatment Standard, imposed on an Industrial User.

"Process waste water" means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product.

"Process waste water pollutants" means pollutants present in process waste water.

"Regional Administrator" means the regional administrator of the United States environmental protection agency whose region includes Tennessee, or any person succeeding to the duties of this official.

"Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

"Significant Industrial User" means:

(a) Except as provided in subparagraphs (b) and (c) of this definition, the term Significant Industrial User means:

1. All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR chapter I, subchapter N; and

2. Any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the WWF (excluding sanitary, noncontact cooling and boiler blowdown wastewater); contributes a process wastestream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the WWF treatment plant; or is designated as such by the Control Authority on the basis that the industrial user has a reasonable potential

for adversely affecting the WWF's operation or for violating any pretreatment standard or requirement (in accordance with 1200-4-14-.08(6)(f)).

(b) The Control Authority may determine that an Industrial User subject to categorical Pretreatment Standards under 1200-4-14-.06 and 40 CFR chapter I, subchapter N is a Non-Significant Categorical Industrial User rather than a Significant Industrial User on a finding that the Industrial User never discharges more than 100 gallons per day (gpd) of total categorical wastewater (excluding sanitary, non-contact cooling and boiler blowdown wastewater, unless specifically included in the Pretreatment Standard) and the following conditions are met:

1. the Industrial User, prior to Control Authority's finding, has consistently complied with all applicable categorical Pretreatment Standards and Requirements;

2. the Industrial User annually submits the certification statement required in 1200-4-14-.12(17) together with any additional information necessary to support the certification statement; and

3. the Industrial User never discharges any untreated concentrated wastewater.

(c) Upon a finding that an industrial user meeting the criteria in part (a)2 of this definition has no reasonable potential for adversely affecting the WWF's operation or for violating any pretreatment standard or requirement, the Control Authority may at any time, on its own initiative or in response to a petition received from an industrial user or WWF, and in accordance with 1200-4-14-.08(6)(f), determine that such industrial user is not a significant industrial user.

"Source" means any activity, operation, construction, building, structure, facility, or installation from which there is or may be the discharge of pollutants

"Standard of performance" means any restriction established by the Administrator pursuant to section 306 of the Federal Clean Water Act on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are or may be discharged from new sources into waters.

"Submission" means:

(a) A request by a WWF for approval of a Pretreatment Program to the Director; or

(b) A request by a WWF to the Director for authority to revise the discharge limits in categorical Pretreatment Standards to reflect WWF pollutant removals.

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with categorical Pretreatment Standards because of factors beyond the reasonable control of the Industrial User. An Upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

"WWF Treatment Plant" means that portion of the WWF which is designed to provide treatment (including recycling and reclamation) of municipal sewage and industrial waste.

"Waters" means any and all water, public or private, on or beneath the surface of the ground, that are contained within, flow through, or border upon Tennessee or any portion thereof, except those

(Rule 1200-4-14-.03, continued)

bodies of water confined to and retained within the limits of private property in single ownership that do not combine or effect a junction with natural surface or underground waters

"Wastewater Facility" or "WWF" means any or all of the following: the collection/transmission system, treatment plant, and the reuse or disposal system, which is owned by any person. This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a WWF Treatment Plant. The term also means the municipality as defined in section 502(4) of the Federal Clean Water Act, which has jurisdiction over the indirect discharges to and the discharges from such a treatment works.

(2) For the purposes of this rule chapter, the following abbreviations shall have the following meanings:

BOD5 means five-day biochemical oxygen demand;
COD means chemical oxygen demand;
TOC means total organic carbon;
TDS means total dissolved solids;
TSS means total suspended nonfilterable solids;
kw means kilowatt(s);
kwh means kilowatt hour(s);
Mw means megawatt(s);
Mwh means megawatt hour(s);
hp means horsepower;
mm means millimeter(s);
cm means centimeter;
m means meter(s);
in means inch;
ft means foot (feet);
l means liter(s);
cu m means cubic meter(s);
k cu m means 1000 cubic meter(s);
gal means gallon(s);
cu ft means cubic foot (feet);
mg means milligrams(s);
g means gram(s);
kg means kilograms(s);
kkg means 1000kilogram(s);
lb means pound(s);
sq m means square meter(s);
ha means hectare(s);
sq ft means square foot (feet); and
ac means acre(s)

Authority: *T.C.A. §§ 69-3-101 et seq. and 4-5-201 et seq.* ***Administrative History:*** *Original rule filed March 16, 2007; effective May 30, 2007.*

1200-4-14-.04 LOCAL LAW.

Nothing in this regulation is intended to affect any Pretreatment Requirements, including any standards or prohibitions, established by local law as long as the local requirements are not less stringent than any set forth in National or State Pretreatment Standards, or any other requirements or prohibitions established by the Department.

(Rule 1200-4-14-.04, continued)

Authority: *T.C.A. §§ 69-3-101 et seq. and 4-5-201 et seq.* ***Administrative History:*** *Original rule filed March 16, 2007; effective May 30, 2007.*

1200-4-14-.05 PRETREATMENT STANDARDS: PROHIBITED DISCHARGES.

(1) General prohibitions

(a) A User may not introduce into a WWF any pollutant(s) which cause Pass Through or Interference. These general prohibitions and the specific prohibitions in paragraph (2) of this rule apply to each User introducing pollutants into a WWF whether or not the User is subject to other National Pretreatment Standards or any national, State, or local Pretreatment Requirements.

(b) Affirmative Defenses. A User shall have an affirmative defense in any action brought against it alleging a violation of the general prohibitions established in subparagraph (1)(a) of this rule and the specific prohibitions in subparagraphs (2)(c), (2)(d), (2)(e), (2)(f), and (2)(g) of this rule where the User can demonstrate that:

1. It did not know or have reason to know that its discharge, alone or in conjunction with a discharge or discharges from other sources, would cause Pass Through or Interference; and

2. A local limit designed to prevent Pass Through and/or Interference, as the case may be, fits one of the following descriptions:

(i) The local limit was developed in accordance with paragraph (3) of this rule for each pollutant in the User's discharge that caused Pass Through or Interference, and the User was in compliance with each such local limit directly prior to and during the Pass Through or Interference; or

(ii) The local limit has not been developed in accordance with paragraph (3) of this rule for the pollutant(s) that caused the Pass Through or Interference, the User's discharge directly prior to and during the Pass Through or Interference did not change substantially in nature or constituents from the User's prior discharge activity when the WWF was regularly in compliance with the WWF's NPDES permit requirements and, in the case of Interference, applicable requirements for sewage sludge use or disposal.

(2) Specific prohibitions. In addition, the following pollutants shall not be introduced into a WWF:

(a) Pollutants which create a fire or explosion hazard in the WWF, including, but not limited to, wastestreams with a closed cup flashpoint of less than 140 degrees Farenheit or 60 degrees Centigrade using the test methods specified in 40 CFR 261.21.

(b) Pollutants which will cause corrosive structural damage to the WWF, but in no case discharges with pH lower than 5.0, unless the works is specifically designed to accommodate such discharges;

(c) Solid or viscous pollutants in amounts which will cause obstruction to the flow in the WWF resulting in Interference;

(Rule 1200-4-14-.05, continued)

(d) Any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a discharge at a flow rate and/or pollutant concentration which will cause Interference with the WWF.

(e) Heat in amounts which will inhibit biological activity in the WWF resulting in Interference, but in no case heat in such quantities that the temperature at the WWF Treatment Plant exceeds 40 °C (104 °F) unless the Approval Authority, upon request of the WWF, approves alternate temperature limits.

(f) Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;

(g) Pollutants which result in the presence of toxic gases, vapors, or fumes within the WWF in a quantity that may cause acute worker health and safety problems;

(h) Any trucked or hauled pollutants, except at discharge points designated by the WWF.

(3) When specific limits must be developed by WWF.

(a) Each WWF developing a WWF Pretreatment Program pursuant to 1200-4-14-.08 shall develop and enforce specific limits to implement the prohibitions listed in subparagraph (1)(a) and paragraph (2) of this rule. Each WWF with an approved pretreatment program shall continue to develop these limits as necessary and effectively enforce such limits.

(b) All other WWF's shall, in cases where pollutants contributed by User(s) result in Interference or Pass-Through, and such violation is likely to recur, develop and enforce specific effluent limits for Industrial User(s), and all other users, as appropriate, which, together with appropriate changes in the WWF Treatment Plant's facilities or operation, are necessary to ensure renewed and continued compliance with the WWF's NPDES permit or sludge use or disposal practices.

(c) Specific effluent limits shall not be developed and enforced without individual notice to persons or groups who have requested such notice and an opportunity to respond.

(d) WWFs may develop Best Management Practices (BMPs) to implement subparagraphs (a) and (b) of this paragraph. Such BMPs shall be considered local limits and Pretreatment Standards for the purposes of this rule chapter.

(4) Local limits. Where specific prohibitions or limits on pollutants or pollutant parameters are developed by a WWF in accordance with paragraph (3) of this rule, such limits shall be deemed Pretreatment Standards for the purposes of this rule chapter.

(5) State enforcement actions. If, within 30 days after notice of an Interference or Pass Through violation has been sent by the Division to the WWF, and to persons or groups who have requested such notice, the WWF fails to commence appropriate enforcement action to correct the violation, the Division may take appropriate enforcement action under the authority provided in TCA 69-3-115.

Authority: *T.C.A. §§ 69-3-101 et seq. and 4-5-201 et seq.* ***Administrative History:*** *Original rule filed March 16, 2007; effective May 30, 2007.*

1200-4-14-.06 NATIONAL PRETREATMENT STANDARDS: CATEGORICAL STANDARDS.

(Rule 1200-4-14-.06, continued)

National pretreatment standards specifying quantities or concentrations of pollutants or pollutant properties which may be discharged to a WWF by existing or new industrial users in specific industrial subcategories are established as separate regulations under the appropriate subpart of 40 CFR chapter I, subchapter N. These standards, unless specifically noted otherwise, shall be in addition to all applicable pretreatment standards and requirements set forth in this rule chapter.

(1) Category Determination Request

(a) Application Deadline. Within 60 days after the effective date of a Pretreatment Standard for a subcategory under which an Industrial User may be included, the Industrial User or WWF may request that the Division provide written certification on whether the Industrial User falls within that particular subcategory. If an existing Industrial User adds or changes a process or operation which may be included in a subcategory, the existing Industrial User must request this certification prior to commencing discharge from the added or changed processes or operation. A New Source must request this certification prior to commencing discharge. Where a request for certification is submitted by a WWF, the WWF shall notify any affected Industrial User of such submission. The Industrial User may provide written comments on the WWF submission to the Division within 30 days of notification.

(b) Contents of Application. Each request shall contain a statement:

1. Describing which subcategories might be applicable; and

2. Citing evidence and reasons why a particular subcategory is applicable and why others are not applicable. Any person signing the application statement submitted pursuant to this rule shall make the following certification:

> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(c) Deficient requests. The Division will only act on written requests for determinations that contain all of the information required. Persons who have made incomplete submissions will be notified by the Division that their requests are deficient and, unless the time period is extended, will be given 30 days to correct the deficiency. If the deficiency is not corrected within 30 days or within an extended period allowed by the Division, the request for a determination shall be denied.

(d) Final decision.

1. Under receipt of a complete request, the Division will consider the submission, any additional evidence that may have been requested, and any other available information relevant to the request. The Division will then make a written determination of the applicable subcategory and state the reasons for the determination.

2. The Division shall forward the determination described in this paragraph to the EPA Water Management Division Director who may make a final

determination. The EPA Water Management Division Director may waive receipt of these determinations. If the EPA Water Management Division Director does not modify the Division's decision within 60 days after receipt thereof, or if the EPA Water Management Division Director waives receipt of the determination, the Division's decision is final.

3. Where the EPA Water Management Division Director elects to modify the Division's decision, the EPA Water Management Division Director's decision will be final.

4. The Division shall send a copy of the determination to the affected Industrial User and the WWF.

(e) Requests for hearing and/or legal decision. Within 30 days following the date of receipt of notice of the final determination as provided for by part (d)4 of this paragraph, the Requester may submit a petition to reconsider or contest the decision to the Division Director who shall act on such petition expeditiously and state the reasons for his or her determination in writing.

(2) Deadline for Compliance with Categorical Standards. Compliance by existing sources with categorical Pretreatment Standards shall be within 3 years of the date the Standard is effective unless a shorter compliance time is specified in the appropriate subpart of 40 CFR chapter I, subchapter N. Existing sources which become Industrial Users subsequent to promulgation of an applicable categorical Pretreatment Standard shall be considered existing Industrial Users except where such sources meet the definition of a New Source as defined in 1200-4-14-.03(1). New Sources shall install and have in operating condition, and shall "start-up" all pollution control equipment required to meet applicable Pretreatment Standards before beginning to discharge. Within the shortest feasible time (not to exceed 90 days), New Sources must meet all applicable Pretreatment Standards.

(3) Concentration and mass limits.

(a) Pollutant discharge limits in categorical Pretreatment Standards will be expressed either as concentration or mass limits. Wherever possible, where concentration limits are specified in standards, equivalent mass limits will be provided so that local, State or Federal authorities responsible for enforcement may use either concentration or mass limits. Limits in categorical Pretreatment Standards shall apply to the effluent of the process regulated by the Standard, or as otherwise specified by the standard.

(b) When the limits in a categorical Pretreatment Standard are expressed only in terms of mass of pollutant per unit of production, the Control Authority may convert the limits to equivalent limitations expressed either as mass of pollutant discharged per day or effluent concentration for purposes of calculating permit limitations applicable to individual Industrial Users.

(c) A Control Authority calculating equivalent mass-per-day limitations under subparagraph (b) of this paragraph shall calculate such limitations by multiplying the limits in the Standard by the Industrial User's average rate of production. This average rate of production shall be based not upon the designed production capacity but rather upon a reasonable measure of the Industrial User's actual long-term daily production, such as the average daily production during a representative year. For new sources, actual production shall be estimated using projected production.

(d) A Control Authority calculating equivalent concentration limitations under subparagraph (b) of this paragraph shall calculate such limitations by dividing the mass

limitations derived under subparagraph (c) of this paragraph by the average daily flow rate of the Industrial User's regulated process wastewater. This average daily flow rate shall be based upon a reasonable measure of the Industrial User's actual long-term average flow rate, such as the average daily flow rate during the representative year. Any day in which a facility does not have a discharge should not be included in the calculation of an average flow.

(e) When the limits in a categorical Pretreatment Standard are expressed only in terms of pollutant concentrations, an Industrial User may request that the Control Authority convert the limits to equivalent mass limits. The determination to convert concentration limits to mass limits is within the discretion of the Control Authority. The Control Authority may establish equivalent mass limits only if the Industrial User meets all the following conditions in subparts 1(i) through (v) of this subparagraph.

1. To be eligible for equivalent mass limits, the Industrial User must:

(i) Employ, or demonstrate that it will employ, water conservation methods and technologies that substantially reduce water use during the term of its control mechanism;

(ii) Currently use control and treatment technologies adequate to achieve compliance with the applicable categorical Pretreatment Standard, and not have used dilution as a substitute for treatment;

(iii) Provide sufficient information to establish the facility’s actual average daily flow rate for all wastestreams, based on data from a continuous effluent flow monitoring device, as well as the facility’s long-term average production rate. Both the actual average daily flow rate and the long-term average production rate must be representative of current operating conditions;

(iv) Not have daily flow rates, production levels, or pollutant levels that vary so significantly that equivalent mass limits are not appropriate to control the discharge; and

(v) Have consistently complied with all applicable categorical Pretreatment Standards during the period prior to the Industrial User’s request for equivalent mass limits.

2. An Industrial User subject to equivalent mass limits must:

(i) Maintain and effectively operate control and treatment technologies adequate to achieve compliance with the equivalent mass limits;

(ii) Continue to record the facility’s flow rates through the use of a continuous effluent flow monitoring device;

(iii) Continue to record the facility’s production rates and notify the Control Authority whenever production rates are expected to vary by more than 20 percent from its baseline production rates determined in subpart 1(iii) of this subparagraph. Upon notification of a revised production rate, the Control Authority must reassess the equivalent mass limit and revise the limit as necessary to reflect changed conditions at the facility; and

(Rule 1200-4-14-.06, continued)

(iv) Continue to employ the same or comparable water conservation methods and technologies as those implemented pursuant to subpart 1(i) of this subparagraph so long as it discharges under an equivalent mass limit.

3. A Control Authority which chooses to establish equivalent mass limits:

(i) Must calculate the equivalent mass limit by multiplying the actual average daily flow rate of the regulated process(es) of the Industrial User by the concentration-based daily maximum and monthly average Standard for the applicable categorical Pretreatment Standard and the appropriate unit conversion factor;

(ii) Upon notification of a revised production rate, must reassess the equivalent mass limit and recalculate the limit as necessary to reflect changed conditions at the facility; and

(iii) May retain the same equivalent mass limit in subsequent control mechanism terms if the Industrial User's actual average daily flow rate was reduced solely as a result of the implementation of water conservation methods and technologies, and the actual average daily flow rates used in the original calculation of the equivalent mass limit were not based on the use of dilution as a substitute for treatment pursuant to paragraph (4) of this rule. The Industrial User must also be in compliance with 1200-4-14-.17 (regarding the prohibition of bypass).

4. The Control Authority may not express limits in terms of mass for pollutants such as pH, temperature, radiation, or other pollutants which cannot appropriately be expressed as mass.

(f) The Control Authority may convert the mass limits of the categorical Pretreatment Standards at 40 CFR Parts 414, 419, and 455 to concentration limits for purposes of calculating limitations applicable to individual Industrial Users under the following conditions. When converting such limits to concentration limits, the Control Authority must use the concentrations listed in the applicable subparts of 40 CFR Parts 414, 419, and 455 and document that dilution is not being substituted for treatment as prohibited by paragraph (4) of this rule.

(g) Equivalent limitations calculated in accordance with subparagraphs (c), (d), (e) and (f) of this paragraph are deemed Pretreatment Standards for the purposes of section 307(d) of the Federal Clean Water Act and this rule chapter. The Control Authority must document how the equivalent limits were derived and make this information publicly available. Once incorporated into its control mechanism, the Industrial User must comply with the equivalent limitations in lieu of the promulgated categorical standards from which the equivalent limitations were derived.

(h) Many categorical pretreatment standards specify one limit for calculating maximum daily discharge limitations and a second limit for calculating maximum monthly average, or 4-day average, limitations. Where such Standards are being applied, the same production or flow figure shall be used in calculating both the average and the maximum equivalent limitation.

(i) Any Industrial User operating under a control mechanism incorporating equivalent mass or concentration limits calculated from a production based standard shall notify the Control Authority within two (2) business days after the User has a reasonable basis to know that the production level will significantly change within the next

calendar month. Any User not notifying the Control Authority of such anticipated change will be required to meet the mass or concentration limits in its control mechanism that were based on the original estimate of the long term average production rate.

(4) Dilution Prohibited as Substitute for Treatment. Except where expressly authorized to do so by an applicable Pretreatment Standard or Requirement, no Industrial User shall ever increase the use of process water, or in any other way attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with a Pretreatment Standard or Requirement. The Control Authority may impose mass limitations on Industrial Users which are using dilution to meet applicable Pretreatment Standards or Requirements, or in other cases where the imposition of mass limitations is appropriate.

(5) Combined wastestream formula. Where process effluent is mixed prior to treatment with wastewaters other than those generated by the regulated process, fixed alternative discharge limits may be derived by the Control Authority, or by the Industrial User with the written concurrence of the Control Authority. These alternative limits shall be applied to the mixed effluent. When deriving alternative categorical limits, the Control Authority or Industrial User shall calculate both an alternative daily maximum value using the daily maximum value(s) specified in the appropriate categorical Pretreatment Standard(s) and an alternative consecutive sampling day average value using the monthly average value(s) specified in the appropriate categorical Pretreatment Standard(s). The Industrial User shall comply with the alternative daily maximum and monthly average limits fixed by the Control Authority until the Control Authority modifies the limits or approves an Industrial User modification request. Modification is authorized whenever there is a material or significant change in the values used in the calculation to fix alternative limits for the regulated pollutant. An Industrial User must immediately report any such material or significant change to the Control Authority. Where appropriate new alternative categorical limits shall be calculated within 30 days.

(a) Alternative limit calculation. For purposes of these formulas, the “average daily flow” means a reasonable measure of the average daily flow for a 30-day period. For new sources, flows shall be estimated using projected values. The alternative limit for a specified pollutant will be derived by the use of either of the following formulas:

1. Alternative concentration limit.

$$\mathbf{C_T} = \left(\frac{\sum_{\mathbf{i}=1}^{\mathbf{N}} \mathbf{C_i F_i}}{\sum_{\mathbf{i}=1}^{\mathbf{N}} \mathbf{F_i}} \right) \left(\frac{\mathbf{F_T} - \mathbf{F_D}}{\mathbf{F_T}} \right)$$

where
C_T=the alternative concentration limit for the combined wastestream.
C_i=the categorical Pretreatment Standard concentration limit for a pollutant in the regulated stream i.
F_i=the average daily flow (at least a 30-day average) of stream i to the extent that it is regulated for such pollutant.

(Rule 1200-4-14-.06, continued)

F_D=the average daily flow (at least a 30-day average) from: (a) Boiler blowdown streams, non-contact cooling streams, stormwater streams, and demineralizer backwash streams; provided, however, that where such streams contain a significant amount of a pollutant, and the combination of such streams, prior to treatment, with an Industrial User's regulated process wastestream(s) will result in a substantial reduction of that pollutant, the Control Authority, upon application of the Industrial User, may exercise its discretion to determine whether such stream(s) should be classified as diluted or unregulated. In its application to the Control Authority, the Industrial User must provide engineering, production, sampling and analysis and such other information so that the Control Authority can make its determination; or (b) sanitary wastestreams where such streams are not regulated by a Categorical Pretreatment Standard; or (c) from any process wastestreams which were or could have been entirely exempted from categorical Pretreatment Standards pursuant to paragraph 8 of the NRDC v. Costle Consent Decree (12 ERC 1833) for one or more of the following reasons (see appendix D of this rule chapter): (1) The pollutants of concern are not detectable in the effluent from the Industrial User (paragraph (8)(a)(iii) of the Decree, 12 ERC at p. 1842); (2) The pollutants of concern are present only in trace amounts and are neither causing nor likely to cause toxic effects (paragraph (8)(a)(iii) of the Decree, 12 ERC at p. 1842); (3) The pollutants of concern are present in amounts too small to be effectively reduced by technologies known to the Administrator (paragraph (8)(a)(iii) of the Decree, 12 ERC at p. 1842); or (4) The wastestream contains only pollutants which are compatible with the WWF (paragraph (8)(b)(i) of the Decree, 12 ERC at p. 1842).
F_T=The average daily flow (at least a 30-day average) through the combined treatment facility (includes F_i, F_D and unregulated streams). N=The total number of regulated streams.

2. Alternative mass limit.

$$\mathbf{M_T} = \left(\sum_{\mathbf{i}=1}^{\mathbf{N}} \mathbf{M_i} \right) \left(\frac{\mathbf{F_T} - \mathbf{F_D}}{\sum_{\mathbf{i}=1}^{\mathbf{N}} \mathbf{F_i}} \right)$$

where
M_T=the alternative mass limit for a pollutant in the combined wastestream.
M_i=the categorical Pretreatment Standard mass limit for a pollutant in the regulated stream i (the categorical pretreatment mass limit multiplied by the appropriate measure of production). F_i=the average flow (at least a 30-day average) of stream i to the extent that it is regulated for such pollutant.
F_D=the average daily flow (at least a 30-day average) from: (a) Boiler blowdown streams, non-contact cooling streams, stormwater streams, and demineralizer backwash streams; provided, however, that where such streams contain a significant amount of a pollutant, and the combination of such streams, prior to treatment, with an Industrial User's regulated process wastestream(s) will result in a substantial reduction of that pollutant, the Control Authority, upon application of the Industrial User, may exercise its discretion to determine whether such stream(s) should be classified as diluted or unregulated. In its application to the Control Authority, the Industrial User must provide engineering, production, sampling and analysis and such other information so that the Control Authority can make its determination; or (b) sanitary wastestreams where such streams are not regulated by a categorical Pretreatment Standard; or (c) from any process wastestreams which were or could have been entirely exempted from categorical Pretreatment Standards pursuant to paragraph 8 of the NRDC v. Costle Consent Decree (12 ERC 1833) for one or more of the following reasons (see appendix D of this rule chapter): (1) The pollutants of concern are not detectable in the effluent from the Industrial User (paragraph (8)(a)(iii) of the Decree, 12 ERC at p. 1842); (2) The pollutants of concern are present only

(Rule 1200-4-14-.06, continued)

in trace amounts and are neither causing nor likely to cause toxic effects (paragraph (8)(a)(iii) of the Decree, 12 ERC at p. 1842); (3) The pollutants of concern are present in amounts too small to be effectively reduced by technologies known to the Administrator (paragraph (8)(a)(iii) of the Decree, 12 ERC at p. 1842); or (4) The wastestream contains only pollutants which are compatible with the WWF (paragraph (8)(b)(i) of the Decree, 12 ERC at p. 1842).
F_T=The average flow (at least a 30-day average) through the combined treatment facility (includes F_i, F_D and unregulated streams). N=The total number of regulated streams.

(b) Alternate limits below detection limit. An alternative pretreatment limit may not be used if the alternative limit is below the analytical detection limit for any of the regulated pollutants.

(c) Self-monitoring. Self-monitoring required to ensure compliance with the alternative categorical limit shall be conducted in accordance with the requirements of 1200-4-14-.12(7).

(d) Choice of monitoring location. Where a regulated process wastestream is combined prior to treatment with wastewaters other than those generated by the regulated process, the Industrial User may monitor either the segregated process wastestream or the combined wastestream for the purpose of determining compliance with applicable Pretreatment Standards. If the Industrial User chooses to monitor the segregated process wastestream, it shall apply the applicable categorical Pretreatment Standard. If the User chooses to monitor the combined wastestream, it shall apply an alternative discharge limit calculated using the combined wastestream formula as provided in this section. The Industrial User may change monitoring points only after receiving approval from the Control Authority. The Control Authority shall ensure that any change in an Industrial User's monitoring point(s) will not allow the User to substitute dilution for adequate treatment to achieve compliance with applicable Standards.

Authority: *T.C.A. §§ 69-3-101 et seq. and 4-5-201 et seq.* ***Administrative History:*** *Original rule filed March 16, 2007; effective May 30, 2007.*

1200-4-14-.07 REMOVAL CREDITS.

(1) Introduction

(a) Definitions. For the purpose of this section:

1. Removal means a reduction in the amount of a pollutant in the WWF's effluent or alteration of the nature of a pollutant during treatment at the WWF. The reduction or alteration can be obtained by physical, chemical or biological means and may be the result of specifically designed WWF capabilities or may be incidental to the operation of the treatment system. Removal as used in this rule shall not mean dilution of a pollutant in the WWF.

2. Sludge Requirements shall mean the following statutory provisions and regulations or permits issued thereunder (or more stringent local regulations): Section 405 of the Federal Clean Water Act; the Solid Waste Disposal Act (SWDA) (including title II more commonly referred to as the Resource Conservation Recovery Act (RCRA) and State regulations contained in any State sludge management plan prepared pursuant to subtitle D of SWDA); the Clean Air Act; the Toxic Substances Control Act; and the Marine Protection, Research and Sanctuaries Act.

(Rule 1200-4-14-.07, continued)

(b) General. Any WWF receiving wastes from an Industrial User to which a categorical Pretreatment Standard(s) applies may, at its discretion and subject to the conditions of this rule, grant removal credits to reflect removal by the WWF of pollutants specified in the categorical Pretreatment Standard(s). The WWF may grant a removal credit equal to or, at its discretion, less than its consistent removal rate. Upon being granted a removal credit, each affected Industrial User shall calculate its revised discharge limits in accordance with subparagraph (d) of this paragraph. Removal credits may only be given for indicator or surrogate pollutants regulated in a categorical Pretreatment Standard if the categorical Pretreatment Standard so specifies.

(c) Conditions for authorization to give removal credits. A WWF is authorized to give removal credits only if the following conditions are met:

1. Application. The WWF applies for, and receives, authorization from the Approval Authority to give a removal credit in accordance with the requirements and procedures specified in paragraph (5) of this rule.

2. Consistent removal determination. The WWF demonstrates and continues to achieve consistent removal of the pollutant in accordance with paragraph (2) of this rule.

3. WWF local pretreatment program. The WWF has an approved pretreatment program in accordance with and to the extent required by this rule chapter; provided, however, a WWF which does not have an approved pretreatment program may, pending approval of such a program, conditionally give credits as provided in paragraph (4) of this rule.

4. Sludge requirements. The granting of removal credits will not cause the WWF to violate the local, State and Federal Sludge Requirements which apply to the sludge management method chosen by the WWF. Alternatively, the WWF can demonstrate to the Approval Authority that even though it is not presently in compliance with applicable Sludge Requirements, it will be in compliance when the Industrial User(s) to whom the removal credit would apply is required to meet its categorical Pretreatment Standard(s) as modified by the removal credit. If granting removal credits forces a WWF to incur greater sludge management costs than would be incurred in the absence of granting removal credits, the additional sludge management costs will not be eligible for EPA grant assistance. Removal credits may be made available for the following pollutants.

(i) For any pollutant listed in appendix G section I of this rule chapter for the use or disposal practice employed by the WWF, when the requirements in 40 CFR part 503 for that practice are met.

(ii) For any pollutant listed in appendix G section II of this rule chapter for the use or disposal practice employed by the WWF when the concentration for a pollutant listed in appendix G section II of this rule chapter in the sewage sludge that is used or disposed does not exceed the concentration for the pollutant in appendix G section II of this rule chapter.

(iii) For any pollutant in sewage sludge when the WWF disposes all of its sewage sludge in a municipal solid waste landfill unit that meets the criteria in 40 CFR part 258.

(Rule 1200-4-14-.07, continued)

5. NPDES permit limitations. The granting of removal credits will not cause a violation of the WWF's permit limitations or conditions. Alternatively, the WWF can demonstrate to the Approval Authority that even though it is not presently in compliance with applicable limitations and conditions in its NPDES permit, it will be in compliance when the Industrial User(s) to whom the removal credit would apply is required to meet its categorical Pretreatment Standard(s), as modified by the removal credit provision.

(d) Calculation of revised discharge limits. Revised discharge limits for a specific pollutant shall be derived by use of the following formula:

$$Y=X/(1-r)$$

where:
x=pollutant discharge limit specified in the applicable categorical Pretreatment Standard r=removal credit for that pollutant as established under paragraph (2) of this rule (percentage removal expressed as a proportion, i.e., a number between 0 and 1) y=revised discharge limit for the specified pollutant expressed in same units as x)

(2) Establishment of Removal Credits; Demonstration of Consistent Removal

(a) Definition of Consistent Removal. “Consistent Removal” shall mean the average of the lowest 50 percent of the removal measured according to subparagraph (b) of this paragraph. All sample data obtained for the measured pollutant during the time period prescribed in subparagraph (b) of this paragraph must be reported and used in computing Consistent Removal. If a substance is measurable in the influent but not in the effluent, the effluent level may be assumed to be the limit of measurement, and those data may be used by the WWF at its discretion and subject to approval by the Approval Authority. If the substance is not measurable in the influent, the data may not be used. Where the number of samples with concentrations equal to or above the limit of measurement is between 8 and 12, the average of the lowest 6 removals shall be used. If there are less than 8 samples with concentrations equal to or above the limit of measurement, the Approval Authority may approve alternate means for demonstrating Consistent Removal. The term “measurement” refers to the ability of the analytical method or protocol to quantify as well as identify the presence of the substance in question.

(b) Consistent Removal Data. Influent and effluent operational data demonstrating Consistent Removal or other information, as provided for in subparagraph (a) of this paragraph, which demonstrates Consistent Removal of the pollutants for which discharge limit revisions are proposed. This data shall meet the following requirements:

1. Representative Data; Seasonal. The data shall be representative of yearly and seasonal conditions to which the WWF is subjected for each pollutant for which a discharge limit revision is proposed.

2. Representative Data; Quality and Quantity. The data shall be representative of the quality and quantity of normal effluent and influent flow if such data can be obtained. If such data are unobtainable, alternate data or information may be presented for approval to demonstrate Consistent Removal as provided for in subparagraph (a) of this paragraph.

3. Sampling Procedures: Composite.

(i) The influent and effluent operational data shall be obtained through 24-hour flow-proportional composite samples. Sampling may be done manually or automatically, and discretely or continuously. For discrete sampling, at least 12 aliquots shall be composited. Discrete sampling may be flow-proportioned either by varying the time interval between each aliquot or the volume of each aliquot. All composites must be flow-proportional to each stream flow at time of collection of influent aliquot or to the total influent flow since the previous influent aliquot. Volatile pollutant aliquots must be combined in the laboratory immediately before analysis.

(ii) Sampling frequency and historical data.

(I) Twelve samples shall be taken at approximately equal intervals throughout one full year. Sampling must be evenly distributed over the days of the week so as to include no-workdays as well as workdays. If the Approval Authority determines that this schedule will not be most representative of the actual operation of the WWF Treatment Plant, the Control Authority must submit an alternative sampling schedule for approval. The alternative sampling schedule shall not be implemented until written approval is obtained from the Approval Authority.

(II) In addition, upon the Approval Authority's concurrence, a WWF may utilize an historical data base amassed prior to the effective date of these rules provided that such data otherwise meet the requirements of this paragraph. In order for the historical database to be approved it must present a statistically valid description of daily, weekly and seasonal sewage treatment plant loadings and performance for at least one year.

(iii) Effluent sample collection need not be delayed to compensate for hydraulic detention unless the WWF elects to include detention time compensation or unless the Approval Authority requires detention time compensation. The Approval Authority may require that each effluent sample be taken approximately one detention time later than the corresponding influent sample when failure to do so would result in an unrepresentative portrayal of actual WWF operation. The detention period is to be based on a 24-hour average daily flow value. The average daily flow used will be based upon the average of the daily flows during the same month of the previous year.

4. Sampling Procedures: Grab. Where composite sampling is not an appropriate sampling technique, a grab sample(s) shall be taken to obtain influent and effluent operational data. Collection of influent grab samples should precede collection of effluent samples by approximately one detention period. The detention period is to be based on a 24-hour average daily flow value. The average daily flow used will be based upon the average of the daily flows during the same month of the previous year. Grab samples will be required, for example, where the parameters being evaluated are those, such as cyanide and phenol, which may not be held for any extended period because of biological, chemical or physical interactions which take place after sample collection and affect the results. A grab sample is an individual sample collected over a period of time not exceeding 15 minutes.

5. Analytical methods. The sampling referred to in parts 1 through 4 of this subparagraph and an analysis of these samples shall be performed in accordance with the techniques prescribed in 40 CFR part 136 and amendments thereto. Where 40 CFR part 136 does not contain sampling or analytical techniques for the pollutant in question, or where the Director determines that the part 136 sampling and analytical techniques are inappropriate for the pollutant in question, sampling and analysis shall be performed using validated analytical methods or any other applicable sampling and analytical procedures, including procedures suggested by the WWF or other parties, approved by the Director.

6. Calculation of removal. All data acquired under the provisions of this section must be submitted to the Approval Authority. Removal for a specific pollutant shall be determined either, for each sample, by measuring the difference between the concentrations of the pollutant in the influent and effluent of the WWF and expressing the difference as a percent of the influent concentration, or, where such data cannot be obtained, Removal may be demonstrated using other data or procedures subject to concurrence by the Approval Authority as provided for in subparagraph (a) of this paragraph.

(3) Provisional credits. For pollutants which are not being discharged currently (i.e., new or modified facilities, or production changes) the WWF may apply for authorization to give removal credits prior to the initial discharge of the pollutant. Consistent removal shall be based provisionally on data from treatability studies or demonstrated removal at other treatment facilities where the quality and quantity of influent are similar. Within 18 months after the commencement of discharge of pollutants in question, consistent removal must be demonstrated pursuant to the requirements of paragraph (2) of this rule. If, within 18 months after the commencement of the discharge of the pollutant in question, the WWF cannot demonstrate consistent removal pursuant to the requirements of paragraph (2) of this rule, the authority to grant provisional removal credits shall be terminated by the Approval Authority and all Industrial Users to whom the revised discharge limits had been applied shall achieve compliance with the applicable categorical Pretreatment Standard(s) within a reasonable time, not to exceed the period of time prescribed in the applicable categorical Pretreatment Standard(s), as may be specified by the Approval Authority.

(4) Exception to WWF Pretreatment Program Requirement. A WWF required to develop a local pretreatment program by 1200-4-14-.08 may conditionally give removal credits pending approval of such a program in accordance with the following terms and conditions:

(a) All Industrial Users who are currently subject to a categorical Pretreatment Standard and who wish conditionally to receive a removal credit must submit to the WWF the information required in 1200-4-14-.12(2)(a) through (g) (except new or modified industrial users must only submit the information required by 1200-4-14-.12(2)(a) through (f)), pertaining to the categorical Pretreatment Standard as modified by the removal credit. The Industrial Users shall indicate what additional technology, if any, will be needed to comply with the categorical Pretreatment Standard(s) as modified by the removal credit;

(b) The WWF must have submitted to the Approval Authority an application for pretreatment program approval meeting the requirements of 1200-4-14-.08 and 1200-4-14-.09 in a timely manner, not to exceed the time limitation set forth in a compliance schedule for development of a pretreatment program included in the WWF's NPDES permit;

(c) The WWF must:

1. Compile and submit data demonstrating its consistent removal in accordance with paragraph (2) of this rule;

2. Comply with the conditions specified in subparagraph (c) of this paragraph; and

3. Submit a complete application for removal credit authority in accordance with paragraph (5) of this rule;

(d) If a WWF receives authority to grant conditional removal credits and the Approval Authority subsequently makes a final determination, after appropriate notice, that the WWF failed to comply with the conditions in subparagraphs (b) and (c) of this paragraph, the authority to grant conditional removal credits shall be terminated by the Approval Authority and all industrial Users to whom the revised discharge limits had been applied shall achieve compliance with the applicable categorical Pretreatment Standard(s) within a reasonable time, not to exceed the period of time prescribed in the applicable categorical Pretreatment Standard(s), as may be specified by the Approval Authority.

(e) If a WWF grants conditional removal credits and the WWF or the Approval Authority subsequently makes a final determination, after appropriate notice, that the Industrial User(s) failed to comply with the conditions in subparagraph (a) of this paragraph, the conditional credit shall be terminated by the WWF or the Approval Authority for the non-complying Industrial User(s) and the Industrial User(s) to whom the revised discharge limits had been applied shall achieve compliance with the applicable categorical Pretreatment Standard(s) within a reasonable time, not to exceed the period of time prescribed in the applicable categorical Pretreatment Standard(s), as may be specified by the Approval Authority. The conditional credit shall not be terminated where a violation of the provisions of this paragraph results from causes entirely outside of the control of the Industrial User(s) or the Industrial User(s) had demonstrated substantial compliance.

(f) The Approval Authority may elect not to review an application for conditional removal credit authority upon receipt of such application, in which case the conditionally revised discharge limits will remain in effect until reviewed by the Approval Authority. This review may occur at any time in accordance with the procedures of 1200-4-14-.11, but in no event later than the time of any pretreatment program approval or any NPDES permit reissuance thereunder.

(5) WWF application for authorization to give removal credits and Approval Authority review—

(a) Who must apply. Any WWF that wants to give a removal credit must apply for authorization from the Approval Authority.

(b) To whom application is made. An application for authorization to give removal credits (or modify existing ones) shall be submitted by the WWF to the Approval Authority.

(c) When to apply. A WWF may apply for authorization to give or modify removal credits at any time.

(d) Contents of the Application. An application for authorization to give removal credits must be supported by the following information:

1. List of pollutants. A list of pollutants for which removal credits are proposed.

2. Consistent Removal Data. The data required pursuant to paragraph (2) of this rule.

3. Calculation of revised discharge limits. Proposed revised discharge limits for each affected subcategory of Industrial Users calculated in accordance with subparagraph (1)(d) of this rule.

4. Local Pretreatment Program Certification. A certification that the WWF has an approved local pretreatment program or qualifies for the exception to this requirement found at paragraph (4) of this rule.

5. Sludge Management Certification. A specific description of the WWF's current methods of using or disposing of its sludge and a certification that the granting of removal credits will not cause a violation of the sludge requirements identified in part 4 of this rule.

6. NPDES Permit Limit Certification. A certification that the granting of removal credits will not cause a violation of the WWF's NPDES permit limits and conditions as required in part 5 of this rule.

(e) Approval Authority Review. The Approval Authority shall review the WWF's application for authorization to give or modify removal credits in accordance with the procedures of 1200-4-14-.11 and shall, in no event, have more that 180 days from public notice of an application to complete review.

(f) EPA review of State removal credit approvals. Where the NPDES State has an approved pretreatment program, the Regional Administrator may agree in the Memorandum of Agreement under 40 CFR 123.24(d) to waive the right to review and object to submissions for authority to grant removal credits. Such an agreement shall not restrict the Regional Administrator's right to comment upon or object to permits issued to WWF's except to the extent 40 CFR 123.24(d) allows such restriction.

(g) Nothing in these regulations precludes an Industrial User or other interested party from assisting the WWF in preparing and presenting the information necessary to apply for authorization.

(6) Continuation and withdrawal of authorization—

(a) Effect of authorization. Once a WWF has received authorization to grant removal credits for a particular pollutant regulated in a categorical Pretreatment Standard it may automatically extend that removal credit to the same pollutant when it is regulated in other categorical standards, unless granting the removal credit will cause the WWF to violate the sludge requirements identified in part (1)(c)4 of this rule or its NPDES permit limits and conditions as required by part (1)(c)5 of this rule. If a WWF elects at a later time to extend removal credits to a certain categorical Pretreatment Standard, industrial subcategory or one or more Industrial Users that initially were not granted removal credits, it must notify the Approval Authority.

(b) Inclusion in WWF permit. Once authority is granted, the removal credits shall be included in the WWF's NPDES Permit as soon as possible and shall become an enforceable requirement of the WWF's NPDES permit. The removal credits will remain in effect for the term of the WWF's NPDES permit, provided the WWF maintains compliance with the conditions specified in subparagraph (d) of this paragraph.

(Rule 1200-4-14-.07, continued)

(c) Compliance monitoring. Following authorization to give removal credits, a WWF shall continue to monitor and report on (at such intervals as may be specified by the Approval Authority, but in no case less than once per year) the WWF's removal capabilities. A minimum of one representative sample per month during the reporting period is required, and all sampling data must be included in the WWF's compliance report.

(d) Modification or withdrawal of removal credits

1. Notice of WWF. The Approval Authority shall notify the WWF if, on the basis of pollutant removal capability reports received pursuant to subparagraph (6)(c) of this rule or other relevant information available to it, the Approval Authority determines:

(i) That one or more of the discharge limit revisions made by the WWF, of the WWF itself, no longer meets the requirements of this rule, or

(ii) That such discharge limit revisions are causing a violation of any conditions or limits contained in the WWF's NPDES Permit.

2. Corrective action. If appropriate corrective action is not taken within a reasonable time, not to exceed 60 days unless the WWF or the affected Industrial Users demonstrate that a longer time period is reasonably necessary to undertake the appropriate corrective action, the Approval Authority shall either withdraw such discharge limits or require modifications in the revised discharge limits.

3. Public notice of withdrawal or modification. The Approval Authority shall not withdraw or modify revised discharge limits unless it shall first have notified the WWF and all Industrial Users to whom revised discharge limits have been applied, and made public, in writing, the reasons for such withdrawal or modification, and an opportunity is provided for a hearing. Following such notice and withdrawal or modification, all Industrial Users to whom revised discharge limits had been applied, shall be subject to the modified discharge limits or the discharge limits prescribed in the applicable categorical Pretreatment Standards, as appropriate, and shall achieve compliance with such limits within a reasonable time (not to exceed the period of time prescribed in the applicable categorical Pretreatment Standard(s) as may be specified by the Approval Authority).

(7) Compensation for overflow. “Overflow” means the intentional or unintentional diversion of flow from the WWF before the WWF Treatment Plant. WWFs which at least once annually Overflow untreated wastewater to receiving waters may claim Consistent Removal of a pollutant only by complying with either subparagraph (a) or (b) of this paragraph. However, this paragraph shall not apply where Industrial User(s) can demonstrate that Overflow does not occur between the Industrial User(s) and the WWF Treatment Plant;

(a) The Industrial User provides containment or otherwise ceases or reduces discharges from the regulated processes which contain the pollutant for which an allowance is requested during all circumstances in which an Overflow event can reasonably be expected to occur at the WWF or at a sewer to which the Industrial User is connected. Discharges must cease or be reduced, or pretreatment must be increased, to the extent necessary to compensate for the removal not being provided by the WWF. Allowances under this provision will only be granted where the WWF submits to the Approval Authority evidence that:

(Rule 1200-4-14-.07, continued)

1. All Industrial Users to which the WWF proposes to apply this provision have demonstrated the ability to contain or otherwise cease or reduce, during circumstances in which an Overflow event can reasonably be expected to occur, discharges from the regulated processes which contain pollutants for which an allowance is requested;

2. The WWF has identified circumstances in which an Overflow event can reasonably be expected to occur, and has a notification or other viable plan to insure that Industrial Users will learn of an impending Overflow in sufficient time to contain, cease or reduce Discharging to prevent untreated Overflows from occurring. The WWF must also demonstrate that it will monitor and verify the data required in part 3 of this subparagraph, to insure that Industrial Users are containing, ceasing or reducing operations during WWF System Overflow; and

3. All Industrial Users to which the WWF proposes to apply this provision have demonstrated the ability and commitment to collect and make available, upon request by the WWF, State Director or EPA Regional Administrator, daily flow reports or other data sufficient to demonstrate that all discharges from regulated processes containing the pollutant for which the allowance is requested were contained, reduced or otherwise ceased, as appropriate, during all circumstances in which an Overflow event was reasonably expected to occur; or

(b) 1. The Consistent Removal claimed is reduced pursuant to the following equation:

$$r_c = r_m \frac{8760 - Z}{8760}$$

where:
r_m = WWF's Consistent Removal rate for that pollutant as established under subparagraphs (1)(a) and (2)(b) of this rule
r_c = removal corrected by the Overflow factor
Z = hours per year that Overflow occurred between the Industrial User(s) and the WWF Treatment Plant, the hours either to be shown in the WWF's current NPDES permit application or the hours, as demonstrated by verifiable techniques, that a particular Industrial User's Discharge Overflows between the Industrial User and the WWF Treatment Plant; and

2. The POTW is complying with all NPDES permit requirements and any additional requirements in any order or decree, issued pursuant to the Federal Clean Water Act affecting combined sewer outflows. These requirements include, but are not limited to, any combined sewer overflow requirements that conform to the Combined Sewer Overflow Control Policy.

Authority: *T.C.A. §§ 69-3-101 et seq. and 4-5-201 et seq.* ***Administrative History:*** *Original rule filed March 16, 2007; effective May 30, 2007.*

1200-4-14-.08 PRETREATMENT PROGRAM REQUIREMENTS: DEVELOPMENT AND IMPLEMENTATION BY WWF.

(1) WWFs required to develop a pretreatment program.

(a) Subparagraphs (b) and (c) of this paragraph apply to any WWF that discharges treated effluent to waters of the state or applies treated effluent to land.

(b) Any WWF (or combination of WWFs operated by the same authority) with a total design flow greater than 5 million gallons per day (mgd) and receiving from Industrial Users pollutants which will or will likely Pass Through or Interfere with the operation of the WWF or are otherwise subject to Pretreatment Standards will be required to establish a WWF Pretreatment Program.

(c) The Division may require that a WWF with a design flow of 5 mgd or less develop a WWF Pretreatment Program upon determination that the nature or volume of the industrial influent, treatment process upsets, violations of WWF effluent limitations, contamination of municipal sludge, or other circumstances warrant in order to prevent Interference with the WWF, Pass Through, or permit violations by the WWF.

(2) WWFs identified as being required to develop a WWF Pretreatment Program under paragraph (1) of this rule shall develop and submit such a program for approval as soon as possible, but in no case later than one year after written notification from the Approval Authority of such identification. The WWF Pretreatment Program shall meet the criteria set forth in paragraph (6) of this rule and shall be administered by the WWF to ensure compliance by Industrial Users with applicable Pretreatment Standards and Requirements.

(3) Incorporation of approved programs in permits. A WWF may develop an appropriate WWF Pretreatment Program any time before the time limit set forth in paragraph (2) of this rule. The WWF's NPDES Permit will be reissued or modified by the Division to incorporate the approved Program as enforceable conditions of the Permit. The modification of a WWF's NPDES Permit for the purposes of incorporating a WWF Pretreatment Program approved in accordance with the procedure in 1200-4-14-.11 shall be deemed a minor Permit modification subject to the procedures in 1200-4-5-.06(5).

(4) Incorporation of compliance schedules in permits. [Reserved]

(5) Cause for reissuance or modification of Permits. The Approval Authority may modify, or alternatively, revoke and reissue a WWF's Permit in order to:

(a) Put the WWF on a compliance schedule for the development of a WWF Pretreatment Program where the addition of pollutants into a WWF by an Industrial User or combination of Industrial Users presents a substantial hazard to the functioning of the treatment works, quality of the receiving waters, human health, or the environment;

(b) Coordinate the issuance of a section 201 construction grant with the incorporation into a permit of a compliance schedule for WWF Pretreatment Program;

(c) Incorporate a modification of the permit approved under section 301(h) or 301(i) of the Federal Clean Water Act;

(d) Incorporate an approved WWF Pretreatment Program in the WWF permit; or

(e) Incorporate a compliance schedule for the development of a WWF pretreatment program in the WWF permit.

(Rule 1200-4-14-.08, continued)

(f) Incorporate the removal credits (established under 1200-4-14-.07) in the WWF permit.

(6) WWF pretreatment requirements. A WWF pretreatment program must be based on the following legal authority and include the following procedures. These authorities and procedures shall at all times be fully and effectively exercised and implemented.

(a) Legal authority. The WWF shall operate pursuant to legal authority enforceable in Federal, State or local courts, which authorizes or enables the WWF to apply and to enforce the requirements of this rule chapter. Such authority may be contained in a statute, ordinance, or series of contracts or joint powers agreements which the WWF is authorized to enact, enter into or implement, and which are authorized by State law. At a minimum, this legal authority shall enable the WWF to:

1. Deny or condition new or increased contributions of pollutants, or changes in the nature of pollutants, to the WWF by Industrial Users where such contributions do not meet applicable Pretreatment Standards and Requirements or where such contributions would cause the WWF to violate its NPDES permit;

2. Require compliance with applicable Pretreatment Standards and Requirements by Industrial Users;

3. Control through permit, order, or similar means, the contribution to the WWF by each Industrial User to ensure compliance with applicable Pretreatment Standards and Requirements. In the case of Industrial Users identified as significant under definition of “Significant Industrial User” in rule 1200-4-14-.03(1), this control shall be achieved through individual permits or equivalent individual control mechanisms issued to each such user except as follows.

(i) At the discretion of the WWF, this control may include use of general control mechanisms if the following conditions are met. All of the facilities to be covered must:

(I) Involve the same or substantially similar types of operations;
(II) Discharge the same types of wastes;
(III) Require the same permit limitations;
(IV) Require the same or similar monitoring; and
(V) In the opinion of the WWF, are more appropriately controlled under a general control mechanism than under individual control mechanisms.

(ii) To be covered by the general control mechanism, the Significant Industrial User must file a written request for coverage that identifies its contact information, production processes, the types of wastes generated, the location for monitoring all wastes covered by the general control mechanism, any requests in accordance with 1200-4-14-.12(5)(b) for a monitoring waiver for a pollutant neither present nor expected to be present in the discharge, and any other information the WWF deems appropriate. A monitoring waiver for a pollutant neither present nor expected to be present in the discharge is not effective in the general control mechanism until after the WWF has provided written notice to the Significant Industrial User that such a waiver request has been granted in accordance with 1200-4-14-.12(5)(b). The WWF must retain a copy of the general control mechanism, documentation to support the WWF’s determination that a specific Significant Industrial User meets the criteria in items (i)(I) through (i)(V) of this part, and a copy of the User's written

request for coverage for 3 years after the expiration of the general control mechanism. A WWF may not control a Significant Industrial User through a general control mechanism where the facility is subject to production-based categorical Pretreatment Standards or categorical Pretreatment Standards expressed as mass of pollutant discharged per day or for Industrial Users whose limits are based on the Combined Wastestream Formula or Net/Gross calculations (1200-4-14-.06(5) and 1200-4-14-.15).

(iii) Both individual and general control mechanisms must be enforceable and contain, at a minimum, the following conditions:

(I) Statement of duration (in no case more than five years);

(II) Statement of non-transferability without, at a minimum, prior notification to the WWF and provision of a copy of the existing control mechanism to the new owner or operator;

(III) Effluent limits, including Best Management Practices, based on applicable general pretreatment standards in this rule chapter, categorical pretreatment standards, local limits, and State and local law;

(IV) Self-monitoring, sampling, reporting, notification and recordkeeping requirements, including an identification of the pollutants to be monitored (including the process for seeking a waiver for a pollutant neither present nor expected to be present in the discharge in accordance with 1200-4-14-.12(5)(b), or a specific waived pollutant in the case of an individual control mechanism), sampling location, sampling frequency, and sample type, based on the applicable general pretreatment standards, categorical pretreatment standards, local limits, and State and local law;

(V) Statement of applicable civil and criminal penalties for violation of pretreatment standards and requirements, and any applicable compliance schedule. Such schedules may not extend the compliance date beyond applicable federal deadlines.

(VI) Requirements to control slug discharges, if determined by the WWF to be necessary.

4. Require (i) the development of a compliance schedule by each Industrial User for the installation of technology required to meet applicable Pretreatment Standards and Requirements and (ii) the submission of all notices and self–monitoring reports from Industrial Users as are necessary to assess and assure compliance by Industrial Users with Pretreatment Standards and Requirements, including but not limited to the reports required in 1200-4-14-.12.

5. Carry out all inspection, surveillance and monitoring procedures necessary to determine, independent of information supplied by Industrial Users, compliance or noncompliance with applicable Pretreatment Standards and Requirements by Industrial Users. Representatives of the WWF shall be authorized to enter any premises of any Industrial User in which a discharge source or treatment system is located or in which records are required to be kept under 1200-4-14-.12(15) to assure compliance with Pretreatment Standards. Such authority shall be at least

as extensive as the authority provided under section 308 of the Federal Clean Water Act;

6. Obtain remedies for noncompliance by any Industrial User with any Pretreatment Standard and Requirement.

(i) All WWF's shall be able to seek injunctive relief for noncompliance by Industrial Users with Pretreatment Standards and Requirements. All WWFs shall also have authority to seek or assess civil or criminal penalties in at least the amount of $1,000 a day for each violation by Industrial Users of Pretreatment Standards and Requirements.

(ii) Pretreatment requirements which will be enforced through the remedies set forth in subpart (i) of this part, will include but not be limited to, the duty to allow or carry out inspections, entry, or monitoring activities; any rules, regulations, or orders issued by the WWF; any requirements set forth in control mechanisms issued by the WWF; or any reporting requirements imposed by the WWF or these regulations. The WWF shall have authority and procedures (after informal notice to the discharger) immediately and effectively to halt or prevent any discharge of pollutants to the WWF which reasonably appears to present an imminent endangerment to the health or welfare of persons. The WWF shall also have authority and procedures (which shall include notice to the affected industrial users and an opportunity to respond) to halt or prevent any discharge to the WWF which presents or may present an endangerment to the environment or which threatens to interfere with the operation of the WWF. The Approval Authority shall have authority to seek judicial relief and may also use administrative penalty authority when the WWF has sought a monetary penalty which the Approval Authority believes to be insufficient.

7. Comply with the confidentiality requirements set forth in 1200-4-14-.14.

(b) Procedures. The WWF shall develop and implement procedures to ensure compliance with the requirements of a Pretreatment Program. At a minimum, these procedures shall enable the WWF to:

1. Identify and locate all possible Industrial Users which might be subject to the WWF Pretreatment Program. Any compilation, index or inventory of Industrial Users made under this paragraph shall be made available to the Regional Administrator or Director upon request;

2. Identify the character and volume of pollutants contributed to the WWF by the Industrial Users identified under part 1 of this subparagraph. This information shall be made available to the Regional Administrator or Director upon request;

3. Notify Industrial Users identified under part 1 of this subparagraph, of applicable Pretreatment Standards and any applicable requirements under sections 204(b) and 405 of the Federal Clean Water Act and subtitles C and D of the Resource Conservation and Recovery Act. Within 30 days of approval pursuant to 40 CFR 1200-4-14-.08(6)(f), of a list of significant industrial users, notify each significant industrial user of its status as such and of all requirements applicable to it as a result of such status.

(Rule 1200-4-14-.08, continued)

4. Receive and analyze self-monitoring reports and other notices submitted by Industrial Users in accordance with the self-monitoring requirements in 1200-4-14-.12;

5. Randomly sample and analyze the effluent from industrial users and conduct surveillance activities in order to identify, independent of information supplied by industrial users, occasional and continuing noncompliance with pretreatment standards. Inspect and sample the effluent from each Significant Industrial User at least once every 12 months, except as otherwise specified below:

   (i) Where the WWF has authorized the Industrial User subject to a categorical Pretreatment Standard to forego sampling of a pollutant regulated by a categorical Pretreatment Standard in accordance with 1200-4-14-.12(5)(b), the WWF must sample for the waived pollutant(s) at least once during the term of the Categorical Industrial User's control mechanism. In the event that the WWF subsequently determines that a waived pollutant is present or is expected to be present in the Industrial User's wastewater based on changes that occur in the User's operations, the WWF must immediately begin effluent monitoring of the User's discharge and inspections of the industrial facility at least once every 12 months.

   (ii) Where the WWF has determined that an Industrial User meets the criteria for classification as a Non-Significant Categorical Industrial User, the WWF must evaluate, at least once every 12 months, whether an Industrial User continues to meet the criteria in subparagraph (b) of the definition of "Significant Industrial User" in 1200-4-14-.03(1).

6. Evaluate whether each such Significant Industrial User needs a plan or other action to control slug discharges. For Industrial Users identified as significant prior to November 14, 2005, this evaluation must have been conducted at least once by October 14, 2006; additional Significant Industrial Users must be evaluated within 12 months of being designated a Significant Industrial User. For purposes of this part, a slug discharge is any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge, which has a reasonable potential to cause Interference or Pass Through, or in any other way violate the WWF's regulations, local limits or Permit conditions. The results of such activities shall be available to the Approval Authority upon request. Significant Industrial Users are required to notify the WWF immediately of any changes at its facility affecting potential for a Slug discharge. If the WWF decides that a slug control plan is needed, the plan shall contain, at a minimum, the following elements:

   (i) Description of discharge practices, including non-routine batch discharges;

   (ii) Description of stored chemicals;

   (iii) Procedures for immediately notifying the WWF of slug discharges, including any discharge that would violate a prohibition under 1200-4-14-.05(2), with procedures for follow-up written notification within five days;

   (iv) If necessary, procedures to prevent adverse impact from accidental spills, including inspection and maintenance of storage areas, handling and

transfer of materials, loading and unloading operations, control of plant site run-off, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants (including solvents), and/or measures and equipment for emergency response;

7. Investigate instances of noncompliance with Pretreatment Standards and Requirements, as indicated in the reports and notices required under 1200-4-14-.12, or indicated by analysis, inspection, and surveillance activities described in part 5 of this subparagraph. Sample taking and analysis and the collection of other information shall be performed with sufficient care to produce evidence admissible in enforcement proceedings or in judicial actions; and

8. Comply with the public participation requirements of 40 CFR part 25 in the enforcement of national pretreatment standards. These procedures shall include provision for at least annual public notification, in a newspaper(s) of general circulation that provides meaningful public notice within the jurisdiction(s) served by the WWF, of industrial users which, at any time during the previous 12 months, were in significant noncompliance with applicable pretreatment requirements. For the purposes of this provision, a significant industrial user (or any industrial user which violates subparts (iii), (iv), or (viii) of this part) is in significant noncompliance if its violation meets one or more of the following criteria:

   (i) Chronic violations of wastewater discharge limits, defined here as those in which 66 percent or more of all of the measurements for each pollutant parameter taken during a 6-month period exceed (by any magnitude) a numeric pretreatment standard or requirement, including instantaneous limits, as defined by 1200-4-14-.03(1);

   (ii) Technical Review Criteria (TRC) violations, defined here as those in which 33 percent or more of all of the measurements for each pollutant parameter taken during a 6-month period equal or exceed the product of the numeric pretreatment standard or requirement, including instantaneous limits, as defined by 1200-4-14-.03(1) multiplied by the applicable TRC (TRC=1.4 for BOD, TSS, fats, oil, and grease, and 1.2 for all other pollutants except pH). TRC calculations for pH are not required by this rule.

   (iii) Any other violation of a pretreatment standard or requirement as defined by 1200-4-14-.03 (daily maximum, long-term average, instantaneous limit, or narrative standard) that the WWF determines has caused, alone or in combination with other discharges, interference or pass through (including endangering the health of WWF personnel or the general public);

   (iv) Any discharge of a pollutant that has caused imminent endangerment to human health, welfare or to the environment or has resulted in the WWF's exercise of its emergency authority under subpart (6)(a)6(ii) of this rule to halt or prevent such a discharge;

   (v) Failure to meet, within 90 days after the schedule date, a compliance schedule milestone contained in a local control mechanism or enforcement order for starting construction, completing construction, or attaining final compliance;

(Rule 1200-4-14-.08, continued)

(vi) Failure to provide, within 45 days after the due date, required reports such as baseline monitoring reports, 90-day compliance reports, periodic self-monitoring reports, and reports on compliance with compliance schedules;

(vii) Failure to accurately report noncompliance;

(viii) Any other violation or group of violations, which may include a violation of Best Management Practices, which the WWF determines will adversely affect the operation or implementation of the local pretreatment program.

(c) Funding. The WWF shall have sufficient resources and qualified personnel to carry out the authorities and procedures described in subparagraphs (a) and (b) of this paragraph. In some limited circumstances, funding and personnel may be delayed where

1. The WWF has adequate legal authority and procedures to carry out the Pretreatment Program requirements described in this section, and

2. A limited aspect of the Program does not need to be implemented immediately.

(d) Local limits. The WWF shall develop local limits as required in 1200-4-14-.05(3)(a), or demonstrate that they are not necessary.

(e) The WWF shall develop and implement an enforcement response plan. This plan shall contain detailed procedures indicating how a WWF will investigate and respond to instances of industrial user noncompliance. The plan shall, at a minimum:

1. Describe how the WWF will investigate instances of noncompliance;

2. Describe the types of escalating enforcement responses the WWF will take in response to all anticipated types of industrial user violations and the time periods within which responses will take place;

3. Identify (by title) the official(s) responsible for each type of response;

4. Adequately reflect the WWF's primary responsibility to enforce all applicable pretreatment requirements and standards, as detailed in this rule.

(f) The WWF shall prepare and maintain a list of its industrial users meeting the criteria in subparagraph (a) in the definition of “Significant Industrial User” in 1200-4-14-.03(1). The list shall identify the criteria in subparagraph (a) in the definition of “Significant Industrial User” in 1200-4-14-.03(1) applicable to each industrial user and, where applicable, shall also indicate whether the WWF has made a determination pursuant to subparagraph (b) in the definition of “Significant Industrial User” in 1200-4-14-.03(1) that such industrial user should not be considered a significant industrial user. The initial list shall be submitted to the Approval Authority pursuant to 1200-4-14-.09 as a non-substantial modification pursuant to 1200-4-14-.18(4). Modifications to the list shall be submitted to the Approval Authority pursuant to 1200-4-14-.12(9)(a).

(7) A WWF that chooses to receive electronic documents must satisfy the requirements of 40 CFR 3 (Electronic reporting).

Authority: *T.C.A. §§ 69-3-101 et seq. and 4-5-201 et seq.* ***Administrative History:*** *Original rule filed March 16, 2007; effective May 30, 2007*

1200-4-14-.09 WWF PRETREATMENT PROGRAMS AND/OR AUTHORIZATION TO REVISE PRETREATMENT STANDARDS: SUBMISSION FOR APPROVAL.

(1) Who approves Program. A WWF requesting approval of a WWF Pretreatment Program shall develop a program description which includes the information set forth in subparagraphs (2)(a) through (e) of this rule. This description shall be submitted to the Approval Authority which will make a determination on the request for program approval in accordance with the procedures described in 1200-4-14-.11.

(2) Contents of WWF program submission. The program description must contain, at a minimum, the following information :

(a) A statement from the City Attorney or a city official acting in a comparable capacity (or the attorney for those WWFs which have independent legal counsel) that the WWF has authority adequate to carry out the programs described in 1200-4-14-.08. This statement shall:

1. Identify the provision of the legal authority under 1200-4-14-.08(6)(a) which provides the basis for each procedure under 1200-4-14-.08(6)(b);

2. Identify the manner in which the WWF will implement the program requirements set forth in 1200-4-14-.08, including the means by which Pretreatment Standards will be applied to individual Industrial Users (e.g., by order, permit, ordinance, etc.); and,

3. Identify how the WWF intends to ensure compliance with Pretreatment Standards and Requirements, and to enforce them in the event of noncompliance by Industrial Users;

(b) A copy of any statutes, ordinances, regulations, agreements, or other authorities relied upon by the WWF for its administration of the Program. This Submission shall include a statement reflecting the endorsement or approval of the local boards or bodies responsible for supervising and/or funding the WWF Pretreatment Program if approved;

(c) A brief description (including organization charts) of the WWF organization which will administer the Pretreatment Program. If more than one agency is responsible for administration of the Program the responsible agencies should be identified, their respective responsibilities delineated, and their procedures for coordination set forth;

(d) A description of the funding levels and full- and part-time manpower available to implement the Program; and

(e) Any additional information requested by the Approval Authority.

(3) Conditional WWF program approval. The WWF may request conditional approval of the Pretreatment Program pending the acquisition of funding and personnel for certain elements of the Program. The request for conditional approval must meet the requirements set forth in paragraph (2) of this rule except that the requirements of paragraph (2) of this rule, may be relaxed if the Submission demonstrates that:

(a) A limited aspect of the Program does not need to be implemented immediately;

(b) The WWF had adequate legal authority and procedures to carry out those aspects of the Program which will not be implemented immediately; and

(c) Funding and personnel for the Program aspects to be implemented at a later date will be available when needed. The WWF will describe in the Submission the mechanism by which this funding will be acquired. Upon receipt of a request for conditional approval, the Approval Authority will establish a fixed date for the acquisition of the needed funding and personnel. If funding is not acquired by this date, the conditional approval of the WWF Pretreatment Program and any removal allowances granted to the WWF, may be modified or withdrawn.

(4) Content of removal allowance Submission. The request for authority to revise categorical Pretreatment Standards must contain the information required in 1200-4-14-.07(4).

(5) Approval authority action. Any WWF requesting WWF Pretreatment Program approval shall submit to the Approval Authority three copies of the Submission described in paragraph (2), and if appropriate, (4) of this rule (two copies mailed to the central office and one copy mailed to the appropriate field office). Within 60 days after receiving the Submission, the Approval Authority shall make a preliminary determination of whether the Submission meets the requirements of paragraph (2) and, if appropriate, (4) of this rule. If the Approval Authority makes the preliminary determination that the Submission meets these requirements, the Approval Authority shall:

(a) Notify the WWF that the Submission has been received and is under review; and

(b) Commence the public notice and evaluation activities set forth in 1200-4-14-.11.

(6) Notification where Submission is defective. If, after review of the Submission as provided for in paragraph (5) of this rule, the Approval Authority determines that the Submission does not comply with the requirements of paragraph (2) or (3) of this rule, and, if appropriate, paragraph (4), of this rule, the Approval Authority shall provide notice in writing to the applying WWF and each person who has requested individual notice. This notification shall identify any defects in the Submission and advise the WWF and each person who has requested individual notice of the means by which the WWF can comply with the applicable requirements of paragraphs (2), (3) of this rule, and, if appropriate, paragraph (4) of this rule.

(7) Consistency with water quality management plans.

(a) In order to be approved the WWF Pretreatment Program shall be consistent with any approved water quality management plan developed in accordance with 40 CFR parts 130, 131, as revised, where such 208 plan includes Management Agency designations and addresses pretreatment in a manner consistent with this rule chapter. In order to assure such consistency the Approval Authority shall solicit the review and comment of the appropriate 208 Planning Agency during the public comment period provided for in 1200-4-14-.11(2)(a)2 prior to approval or disapproval of the Program.

(b) Where no 208 plan has been approved or where a plan has been approved but lacks Management Agency designations and/or does not address pretreatment in a manner consistent with this regulation, the Approval Authority shall nevertheless solicit the review and comment of the appropriate 208 planning agency.

Authority: *T.C.A. §§ 69-3-101 et seq. and 4-5-201 et seq.* ***Administrative History:*** *Original rule filed March 16, 2007; effective May 30, 2007.*

1200-4-14-.10 RESERVED

(Rule 1200-4-14-.10, continued)

Authority: *T.C.A. §§ 69-3-101 et seq. and 4-5-201 et seq.* ***Administrative History:*** *Original rule filed March 16, 2007; effective May 30, 2007.*

1200-4-14-.11 APPROVAL PROCEDURES FOR WWF PRETREATMENT PROGRAMS AND WWF GRANTING OF REMOVAL CREDITS.

The following procedures shall be adopted in approving or denying requests for approval of WWF Pretreatment Programs and applications for removal credit authorization:

(1) Deadline for review of Submission. The Approval Authority shall have 90 days from the date of public notice of any Submission complying with the requirements of 1200-4-14-.09(2) and, where removal credit authorization is sought with 1200-4-14-.07(5) and 1200-4-14-.09(4), to review the Submission. The Approval Authority shall review the Submission to determine compliance with the requirements of 1200-4-14-.08 (2) and (6), and, where removal credit authorization is sought, with 1200-4-14-.07. The Approval Authority may have up to an additional 90 days to complete the evaluation of the Submission if the public comment period provided for in part (2)(a)2 of this rule is extended beyond 30 days or if a public hearing is held as provided for in subparagraph (2)(b) of this rule. In no event, however, shall the time for evaluation of the Submission exceed a total of 180 days from the date of public notice of a Submission meeting the requirements of 1200-4-14-.09(2) and, in the case of a removal credit application, 1200-4-14-.07(5) and 1200-4-14-.09(2).

(2) Public notice and opportunity for hearing. Upon receipt of a Submission the Approval Authority shall commence its review. Within 20 work days after making a determination that a Submission meets the requirements of 1200-4-14-.09(2) and, where removal allowance approval is sought, 1200-4-14-.07(4) and 1200-4-14-.09(4), the Approval Authority shall:

(a) Issue a public notice of request for approval of the Submission;

1. This public notice shall be circulated in a manner designed to inform interested and potentially interested persons of the Submission. Procedures for the circulation of public notice shall include:

(i) Mailing notices of the request for approval of the Submission to designated 208 planning agencies, Federal and State fish, shellfish and wildfish resource agencies (unless such agencies have asked not to be sent the notices); and to any other person or group who has requested individual notice, including those on appropriate mailing lists; and

(ii) Publication of a notice of request for approval of the Submission in a newspaper(s) of general circulation within the jurisdiction(s) served by the WWF that provides meaningful public notice. The Approval Authority may require that the WWF provide the public notification detailed in this subpart.

2. The public notice shall provide a period of not less than 30 days following the date of the public notice during which time interested persons may submit their written views on the Submission.

3. All written comments submitted during the 30 day comment period shall be retained by the Approval Authority and considered in the decision on whether or not to approve the Submission. The period for comment may be extended at the discretion of the Approval Authority; and

(Rule 1200-4-14-.11, continued)

(b) Provide an opportunity for the applicant, any affected State, any interested State or Federal agency, person or group of persons to request a public hearing with respect to the Submission.

1. This request for public hearing shall be filed within the 30 day (or extended) comment period described in part (2)(a)2 of this paragraph and shall indicate the interest of the person filing such request and the reasons why a hearing is warranted.

2. The Approval Authority shall hold a hearing if the WWF so requests. In addition, a hearing will be held if there is a significant public interest in issues relating to whether or not the Submission should be approved. Instances of doubt should be resolved in favor of holding the hearing.

3. Public notice of a hearing to consider a Submission, sufficient to inform interested parties of the nature of the hearing and the right to participate, shall be published in the same newspaper as the notice of the original request for approval of the Submission under subpart (2)(a)1(ii) of this paragraph. In addition, notice of the hearing shall be sent to those persons requesting individual notice.

(3) Approval authority decision. At the end of the 30 day (or extended) comment period and within the 90 day (or extended) period provided for in paragraph (1) of this rule, the Approval Authority shall approve or deny the Submission based upon the evaluation in paragraph (1) of this rule and taking into consideration comments submitted during the comment period and the record of the public hearing, if held. Where the Approval Authority makes a determination to deny the request, the Approval Authority shall so notify the WWF and each person who has requested individual notice. This notification shall include suggested modifications and the Approval Authority may allow the requestor additional time to bring the Submission into compliance with applicable requirements.

(4) EPA objection to Director's decision. No WWF pretreatment program or authorization to grant removal allowances shall be approved by the Director if following the 30 day (or extended) evaluation period provided for in part (2)(a)2 of this rule and any hearing held pursuant to subparagraph (2)(b) of this rule the Regional Administrator sets forth in writing objections to the approval of such Submission and the reasons for such objections. A copy of the Regional Administrator's objections shall be provided to the applicant, and each person who has requested individual notice. The Regional Administrator shall provide an opportunity for written comments and may convene a public hearing on his or her objections. Unless retracted, the Regional Administrator's objections shall constitute a final ruling to deny approval of a WWF pretreatment program or authorization to grant removal allowances 90 days after the date the objections are issued.

(5) Notice of decision. The Approval Authority shall notify those persons who submitted comments and participated in the public hearing, if held, of the approval or disapproval of the Submission. In addition, the Approval Authority shall cause to be published a notice of approval or disapproval in the same newspapers as the original notice of request for approval of the Submission was published. The Approval Authority shall identify in any notice of WWF Pretreatment Program approval any authorization to modify categorical Pretreatment Standards which the WWF may make, in accordance with 1200-4-14-.07, for removal of pollutants subject to Pretreatment Standards.

(6) Public access to Submission. The Approval Authority shall ensure that the Submission and any comments upon such Submission are available to the public for inspection and copying.

(Rule 1200-4-14-.11, continued)

Authority: *T.C.A. §§ 69-3-101 et seq. and 4-5-201 et seq.* ***Administrative History:*** *Original rule filed March 16, 2007; effective May 30, 2007.*

1200-4-14-.12 REPORTING REQUIREMENTS FOR WWF'S AND INDUSTRIAL USERS.

(1) [Reserved]

(2) Reporting requirements for industrial users upon effective date of categorical pretreatment standard—baseline report. Within 180 days after the effective date of a categorical Pretreatment Standard, or 180 days after the final administrative decision made upon a category determination submission under 1200-4-14-.06(1)(d), whichever is later, existing Industrial Users subject to such categorical Pretreatment Standards and currently discharging to or scheduled to discharge to a WWF shall be required to submit to the Control Authority a report which contains the information listed in subparagraphs (a)–(g) of this paragraph. At least 90 days prior to commencement of discharge, New Sources, and sources that become Industrial Users subsequent to the promulgation of an applicable categorical Standard, shall be required to submit to the Control Authority a report which contains the information listed in subparagraphs (a)–(e) of this paragraph. New sources shall also be required to include in this report information on the method of pretreatment the source intends to use to meet applicable pretreatment standards. New Sources shall give estimates of the information requested in subparagraphs (d) and (e) of this paragraph:

(a) Identifying information. The User shall submit the name and address of the facility including the name of the operator and owners;

(b) Permits. The User shall submit a list of any environmental control permits held by or for the facility;

(c) Description of operations. The User shall submit a brief description of the nature, average rate of production, and Standard Industrial Classification of the operation(s) carried out by such Industrial User. This description should include a schematic process diagram which indicates points of discharge to the WWF from the regulated processes.

(d) Flow measurement. The User shall submit information showing the measured average daily and maximum daily flow, in gallons per day, to the WWF from each of the following:

1. Regulated process streams; and

2. Other streams as necessary to allow use of the combined wastestream formula of 1200-4-14-.06(5). (See part (e)4 of this paragraph.) The Control Authority may allow for verifiable estimates of these flows where justified by cost or feasibility considerations.

(e) Measurement of pollutants.

1. The user shall identify the Pretreatment Standards applicable to each regulated process;

2. In addition, the User shall submit the results of sampling and analysis identifying the nature and concentration (or mass, where required by the Standard or Control Authority) of regulated pollutants in the discharge from each regulated process. Both daily maximum and average concentration (or

mass, where required) shall be reported. The sample shall be representative of daily operations. In cases where the Standard requires compliance with a Best Management Practice or pollution prevention alternative, the User shall submit documentation as required by the Control Authority or the applicable Standards to determine compliance with the Standard;

3. The User shall take a minimum of one representative sample to compile that data necessary to comply with the requirements of this paragraph.

4. Samples should be taken immediately downstream from pretreatment facilities if such exist or immediately downstream from the regulated process if no pretreatment exists. If other wastewaters are mixed with the regulated wastewater prior to pretreatment the User should measure the flows and concentrations necessary to allow use of the combined wastestream formula of 1200-4-14-.06(5) in order to evaluate compliance with the Pretreatment Standards. Where an alternate concentration or mass limit has been calculated in accordance with 1200-4-14-.06(5) this adjusted limit along with supporting data shall be submitted to the Control Authority;

5. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 CFR part 136 and amendments thereto. Where 40 CFR part 136 does not contain sampling or analytical techniques for the pollutant in question, or where the Administrator determines that the part 136 sampling and analytical techniques are inappropriate for the pollutant in question, sampling and analysis shall be performed by using validated analytical methods or any other applicable sampling and analytical procedures, including procedures suggested by the WWF or other parties, approved by the Administrator;

6. The Control Authority may allow the submission of a baseline report which utilizes only historical data so long as the data provides information sufficient to determine the need for industrial pretreatment measures;

7. The baseline report shall indicate the time, date and place, of sampling, and methods of analysis, and shall certify that such sampling and analysis is representative of normal work cycles and expected pollutant discharges to the WWF;

(f) Certification. A statement, reviewed by an authorized representative of the Industrial User (as defined in paragraph (12) of this rule) and certified to by a qualified professional, indicating whether Pretreatment Standards are being met on a consistent basis, and, if not, whether additional operation and maintenance (O and M) and/or additional pretreatment is required for the Industrial User to meet the Pretreatment Standards and Requirements; and

(g) Compliance schedule. If additional pretreatment and/or O and M will be required to meet the Pretreatment Standards; the shortest schedule by which the Industrial User will provide such additional pretreatment and/or O and M. The completion date in this schedule shall not be later than the compliance date established for the applicable Pretreatment Standard.

1. Where the Industrial User's categorical Pretreatment Standard has been modified by a removal allowance (1200-4-14-.07), the combined wastestream formula (1200-4-14-.06(5)), and/or a Fundamentally Different Factors variance (1200-4-14-.13) at the time the User submits the report required by paragraph (2) of this

rule, the information required by subparagraphs (f) and (g) of this paragraph shall pertain to the modified limits.

2. If the categorical Pretreatment Standard is modified by a removal allowance (1200-4-14-.07), the combined wastestream formula (1200-4-14-.06(5)), and/or a Fundamentally Different Factors variance (1200-4-14-.13) after the User submits the report required by paragraph (2) of this rule, any necessary amendments to the information requested by subparagraphs (f) and (g) of this paragraph shall be submitted by the User to the Control Authority within 60 days after the modified limit is approved.

(3) Compliance schedule for meeting categorical Pretreatment Standards. The following conditions shall apply to the schedule required by subparagraph (2)(g) of this rule:

(a) The schedule shall contain increments of progress in the form of dates for the commencement and completion of major events leading to the construction and operation of additional pretreatment required for the Industrial User to meet the applicable categorical Pretreatment Standards (e.g., hiring an engineer, completing preliminary plans, completing final plans, executing contract for major components, commencing construction, completing construction, etc.).

(b) No increment referred to in subparagraph (a) of this paragraph shall exceed 9 months.

(c) Not later than 14 days following each date in the schedule and the final date for compliance, the Industrial User shall submit a progress report to the Control Authority including, at a minimum, whether or not it complied with the increment of progress to be met on such date and, if not, the date on which it expects to comply with this increment of progress, the reason for delay, and the steps being taken by the Industrial User to return the construction to the schedule established. In no event shall more than 9 months elapse between such progress reports to the Control Authority.

(4) Report on compliance with categorical pretreatment standard deadline. Within 90 days following the date for final compliance with applicable categorical Pretreatment Standards or in the case of a New Source following commencement of the introduction of wastewater into the WWF, any Industrial User subject to Pretreatment Standards and Requirements shall submit to the Control Authority a report containing the information described in subparagraphs (2) (d)–(f) of this rule. For Industrial Users subject to equivalent mass or concentration limits established by the Control Authority in accordance with the procedures in 1200-4-14-.06(3), this report shall contain a reasonable measure of the User's long-term production rate. For all other Industrial Users subject to categorical Pretreatment Standards expressed in terms of allowable pollutant discharge per unit of production (or other measure of operation), this report shall include the User's actual production during the appropriate sampling period.

(5) Periodic reports on continued compliance.

(a) Any Industrial User subject to a categorical Pretreatment Standard [except a non-significant categorical industrial user as defined in subparagraph (b) in the definition of “Significant Industrial User” in 1200-4-14-.03(1)], after the compliance date of such Pretreatment Standard, or, in the case of a New Source, after commencement of the discharge into the WWF, shall submit to the Control Authority during the months of June and December, unless required more frequently in the Pretreatment Standard or by the Control Authority or the Approval Authority, a report indicating the nature and concentration of pollutants in the effluent which are limited by such categorical Pretreatment Standards. In addition, this report shall include a record of measured or

estimated average and maximum daily flows for the reporting period for the discharge reported in subparagraph (2)(d) of this rule except that the Control Authority may require more detailed reporting of flows. In cases where the Pretreatment Standard requires compliance with a Best Management Practice (or pollution prevention alternative), the User shall submit documentation required by the Control Authority or the Pretreatment Standard necessary to determine the compliance status of the User. At the discretion of the Control Authority and in consideration of such factors as local high or low flow rates, holidays, budget cycles, etc., the Control Authority may agree to alter the months during which the above reports are to be submitted.

(b) The Control Authority may authorize the Industrial User subject to a categorical Pretreatment Standard to forego sampling of a pollutant regulated by a categorical Pretreatment Standard if the Industrial User has demonstrated through sampling and other technical factors that the pollutant is neither present nor expected to be present in the discharge, or is present only at background levels from intake water and without any increase in the pollutant due to activities of the Industrial User. This authorization is subject to the following conditions:

1. The Control Authority may authorize a waiver where a pollutant is determined to be present solely due to sanitary wastewater discharged from the facility provided that the sanitary wastewater is not regulated by an applicable categorical Standard and otherwise includes no process wastewater.

2. The monitoring waiver is valid only for the duration of the effective period of the Permit or other equivalent individual control mechanism, but in no case longer than 5 years. The User must submit a new request for the waiver before the waiver can be granted for each subsequent control mechanism.

3. In making a demonstration that a pollutant is not present, the Industrial User must provide data from at least one sampling of the facility's process wastewater prior to any treatment present at the facility that is representative of all wastewater from all processes. The request for a monitoring waiver must be signed in accordance with subparagraph (a) of this paragraph, and include the certification statement in 1200-4-14-.06(1)(b)2. Non-detectable sample results may only be used as a demonstration that a pollutant is not present if the EPA approved method from 40 CFR Part 136 with the lowest minimum detection level for that pollutant was used in the analysis.

4. Any grant of the monitoring waiver by the Control Authority must be included as a condition in the User's control mechanism. The reasons supporting the waiver and any information submitted by the User in its request for the waiver must be maintained by the Control Authority for 3 years after expiration of the waiver.

5. Upon approval of the monitoring waiver and revision of the User's control mechanism by the Control Authority, the Industrial User must certify on each report with the statement below, that there has been no increase in the pollutant in its wastestream due to activities of the Industrial User:

> Based on my inquiry of the person or persons directly responsible for managing compliance with the Pretreatment Standard for 40 CFR [specify applicable National Pretreatment Standard part(s)], I certify that, to the best of my knowledge and belief, there has been no increase in the level of [list pollutant(s)] in the wastewaters due to the activities

at the facility since filing of the last periodic report under 1200-4-14-.12(5)(a).

6. In the event that a waived pollutant is found to be present or is expected to be present based on changes that occur in the User's operations, the User must immediately: Comply with the monitoring requirements of subparagraph (a) of this paragraph or other more frequent monitoring requirements imposed by the Control Authority, and notify the Control Authority.

7. This provision does not supersede certification processes and requirements established in categorical Pretreatment Standards, except as otherwise specified in the categorical Pretreatment Standard.

(c) Where the Control Authority has imposed mass limitations on Industrial Users as provided for by 1200-4-14-.06(4), the report required by subparagraph (a) of this paragraph shall indicate the mass of pollutants regulated by Pretreatment Standards in the discharge from the Industrial User.

(d) For Industrial Users subject to equivalent mass or concentration limits established by the Control Authority in accordance with the procedures in 1200-4-14-.06(3), the report required by subparagraph (a) of this paragraph shall contain a reasonable measure of the User's long-term production rate. For all other Industrial Users subject to categorical Pretreatment Standards expressed only in terms of allowable pollutant discharge per unit of production (or other measure of operation), the report required by subparagraph (a) of this paragraph shall include the User's actual average production rate for the reporting period.

(6) Notice of potential problems, including slug loading. All categorical and non-categorical Industrial Users shall notify the WWF immediately of all discharges that could cause problems to the WWF, including any slug loadings, as defined by 1200-4-14-.05(2), by the Industrial User.

(7) Monitoring and analysis to demonstrate continued compliance.

(a) Except in the case of Non-Significant Categorical Users, the reports required in paragraphs (2), (4), (5), and (8) of this rule shall contain the results of sampling and analysis of the discharge, including the flow and the nature and concentration, or production and mass where requested by the Control Authority, of pollutants contained therein which are limited by the applicable Pretreatment Standards. This sampling and analysis may be performed by the Control Authority in lieu of the Industrial User. Where the WWF performs the required sampling and analysis in lieu of the Industrial User, the User will not be required to submit the compliance certification required under subparagraph (2)(f) and paragraph (4) of this rule. In addition, where the WWF itself collects all the information required for the report, including flow data, the Industrial User will not be required to submit the report.

(b) If sampling performed by an Industrial User indicates a violation, the user shall notify the Control Authority within 24 hours of becoming aware of the violation. The User shall also repeat the sampling and analysis and submit the results of the repeat analysis to the Control Authority within 30 days after becoming aware of the violation. Where the Control Authority has performed the sampling and analysis in lieu of the Industrial User, the Control Authority must perform the repeat sampling and analysis unless it notifies the User of the violation and requires the User to perform the repeat analysis. Resampling is not required if:

(Rule 1200-4-14-.12, continued)

1. The Control Authority performs sampling at the Industrial User at a frequency of at least once per month, or

2. The Control Authority performs sampling at the User between the time when the initial sampling was conducted and the time when the User or the Control Authority receives the results of this sampling.

(c) The reports required in paragraphs (2), (4), (5), and (8) of this rule must be based upon data obtained through appropriate sampling and analysis performed during the period covered by the report, which data are representative of conditions occurring during the reporting period. The Control Authority shall require that frequency of monitoring necessary to assess and assure compliance by Industrial Users with applicable Pretreatment Standards and Requirements. Grab samples must be used for pH, cyanide, total phenols, oil and grease, sulfide, and volatile organic compounds. For all other pollutants, 24-hour composite samples must be obtained through flow-proportional composite sampling techniques, unless time-proportional composite sampling or grab sampling is authorized by the Control Authority. Where time-proportional composite sampling or grab sampling is authorized by the Control Authority, the samples must be representative of the discharge and the decision to allow the alternative sampling must be documented in the Industrial User file for that facility or facilities. Using protocols (including appropriate preservation) specified in 40 CFR Part 136 and appropriate EPA guidance, multiple grab samples collected during a 24-hour period may be composited prior to the analysis as follows: For cyanide, total phenols, and sulfides the samples may be composited in the laboratory or in the field; for volatile organics and oil & grease the samples may be composited in the laboratory. Composite samples for other parameters unaffected by the compositing procedures as documented in approved EPA methodologies may be authorized by the Control Authority, as appropriate.

(d) For sampling required in support of baseline monitoring and 90-day compliance reports required in paragraphs (2) and (4) of this rule, a minimum of four (4) grab samples must be used for pH, cyanide, total phenols, oil and grease, sulfide and volatile organic compounds for facilities for which historical sampling data do not exist; for facilities for which historical sampling data are available, the Control Authority may authorize a lower minimum. For the reports required by paragraphs (5) and (8) of this rule, the Control Authority shall require the number of grab samples necessary to assess and assure compliance by Industrial Users with Applicable Pretreatment Standards and Requirements.

(e) All analyses shall be performed in accordance with procedures established by the Administrator pursuant to section 304(h) of the Federal Clean Water Act and contained in 40 CFR part 136 and amendments thereto or with any other test procedures approved by the Administrator. (See, §§136.4 and 136.5.) Sampling shall be performed in accordance with the techniques approved by the Administrator. Where 40 CFR part 136 does not include sampling or analytical techniques for the pollutants in question, or where the Administrator determines that the part 136 sampling and analytical techniques are inappropriate for the pollutant in question, sampling and analyses shall be performed using validated analytical methods or any other sampling and analytical procedures, including procedures suggested by the WWF or other parties, approved by the Administrator.

(f) If an Industrial User subject to the reporting requirement in paragraph (5) or (8) of this rule monitors any regulated pollutant at the appropriate sampling location more frequently than required by the Control Authority, using the procedures prescribed in subparagraph (e) of this paragraph, the results of this monitoring shall be included in the report.

(8) Reporting requirements for Industrial Users not subject to categorical Pretreatment Standards. The Control Authority must require appropriate reporting from those Industrial Users with discharges that are not subject to categorical Pretreatment Standards. Significant Noncategorical Industrial Users must submit to the Control Authority at least once every six months (on dates specified by the Control Authority) a description of the nature, concentration, and flow of the pollutants required to be reported by the Control Authority. In cases where a local limit requires compliance with a Best Management Practice or pollution prevention alternative, the User must submit documentation required by the Control Authority to determine the compliance status of the User. These reports must be based on sampling and analysis performed in the period covered by the report, and in accordance with the techniques described in 40 CFR part 136 and amendments thereto. This sampling and analysis may be performed by the Control Authority in lieu of the significant noncategorical industrial user.

(9) Semiannual WWF reports. WWFs with approved Pretreatment Programs shall provide the Approval Authority with a report that briefly describes the WWF's program activities, including activities of all participating agencies, if more than one jurisdiction is involved in the local program. The reporting periods shall end on the last day of the months of March and September. The report shall be submitted to the Division no later than the 28th day of the month following each reporting period. A WWF may request approval from the Divison to submit reports annually in lieu of semiannual reports. The request should be made in writing to the pretreatment coordinator during the NPDES permit renewal process. Only WWF Pretreatment Programs that have successfully implemented their program and submitted acceptable semiannual reports for three years or more will be allowed to submit annual reports in lieu of semiannual reports. Annual reporting periods will cover January 1 through December 31 and will be due 35 days after the reporting period ends. Large pretreatment programs (20 SIUs or more, as defined by 1200-4-11) that are either semiannual or annual reporters shall be granted an additional 15 days to submit reports to the division. Both semiannual and annual reports shall conform to the format set forth in the State POTW Pretreatment Semiannual Report Package, which includes, at a minimum, the following:

(a) An updated list of the WWF's Industrial Users, including their names and addresses. The WWF shall provide a brief explanation of each deletion. This list shall identify which Industrial Users are subject to categorical pretreatment Standards and specify which Standards are applicable to each Industrial User. The list shall indicate which Industrial Users are subject to local standards that are more stringent than the categorical Pretreatment Standards. The WWF shall also list the Industrial Users that are subject only to local Requirements. The list must also identify Industrial Users subject to categorical Pretreatment Standards that are subject to reduced reporting requirements under subparagraph (5)(c) of this rule, and identify which Industrial Users are Non-Significant Categorical Industrial Users.

(b) A summary of the status of Industrial User compliance over the reporting period;

(c) A summary of compliance and enforcement activities (including inspections) conducted by the WWF during the reporting period;

(d) A summary of changes to the WWF's pretreatment program that have not been previously reported to the Approval Authority; and

(e) Any other relevant information requested by the Approval Authority.

(10) Notification of changed discharge. All Industrial Users shall promptly notify the Control Authority (and the WWF if the WWF is not the Control Authority) in advance of any substantial change in the volume or character of pollutants in their discharge, including the

listed or characteristic hazardous wastes for which the Industrial User has submitted initial notification under 1200-4-14-.12(16).

(11) Compliance schedule for WWF's. The following conditions and reporting requirements shall apply to the compliance schedule for development of an approvable WWF Pretreatment Program required by 1200-4-14-.08.

(a) The schedule shall contain increments of progress in the form of dates for the commencement and completion of major events leading to the development and implementation of a WWF Pretreatment Program (e.g., acquiring required authorities, developing funding mechanisms, acquiring equipment);

(b) No increment referred to in subparagraph (11)(a) of this rule shall exceed nine months;

(c) Not later than 14 days following each date in the schedule and the final date for compliance, the WWF shall submit a progress report to the Approval Authority including, as a minimum, whether or not it complied with the increment of progress to be met on such date and, if not, the date on which it expects to comply with this increment of progress, the reason for delay, and the steps taken by the WWF to return to the schedule established. In no event shall more than nine months elapse between such progress reports to the Approval Authority.

(12) Signatory requirements for industrial user reports. The reports required by paragraphs (2), (4), and (5) of this rule shall include the certification statement as set forth in 1200-4-14-.06(1)(b)2, and shall be signed as follows:

(a) By a responsible corporate officer, if the Industrial User submitting the reports required by paragraphs (2), (4) and (5) of this rule is a corporation. For the purpose of this paragraph, a responsible corporate officer means

1. a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or

2. the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiate and direct other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; can ensure that the necessary systems are established or actions taken to gather complete and accurate information for control mechanism requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(b) By a general partner or proprietor if the Industrial User submitting the reports required by paragraphs (2), (4) and (5) of this rule is a partnership or sole proprietorship respectively.

(c) By a duly authorized representative of the individual designated in subparagraphs (a) or (b) of this paragraph if:

1. The authorization is made in writing by the individual described in subparagraph (a) or (b) of this paragraph;

(Rule 1200-4-14-.12, continued)

2. The authorization specifies either an individual or a position having responsibility for the overall operation of the facility from which the Industrial discharge originates, such as the position of plant manager, operator of a well, or well field superintendent, or a position of equivalent responsibility, or having overall responsibility for environmental matters for the company; and

3. the written authorization is submitted to the Control Authority.

(d) If an authorization under subparagraph (12)(c) of this rule is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, or overall responsibility for environmental matters for the company, a new authorization satisfying the requirements of subparagraph (12)(c) of this rule must be submitted to the Control Authority prior to or together with any reports to be signed by an authorized representative.

(13) Signatory requirements for WWF reports. Reports submitted to the Approval Authority by the WWF in accordance with paragraph (9) of this rule must be signed by a principal executive officer, ranking elected official or other duly authorized employee. The duly authorized employee must be an individual or position having responsibility for the overall operation of the facility or the Pretreatment Program. This authorization must be made in writing by the principal executive officer or ranking elected official, and submitted to the Approval Authority prior to or together with the report being submitted.

(14) Provisions Governing Fraud and False Statements: The reports and other documents required to be submitted or maintained under this section shall be subject to:

(a) The provisions of 18 U.S.C. section 1001 relating to fraud and false statements;

(b) The provisions of section 309(c)(4) of the Federal Clean Water Act, as amended, governing false statements, representation or certification; and

(c) The provisions of section 309(c)(6) regarding responsible corporate officers.

(15) Record-keeping requirements.

(a) Any Industrial User and WWF subject to the reporting requirements established in this rule shall maintain records of all information resulting from any monitoring activities required by this rule, including documentation associated with Best Management Practices. Such records shall include for all samples:

1. The date, exact place, method, and time of sampling and the names of the person or persons taking the samples;

2. The dates analyses were performed;

3. Who performed the analyses;

4. The analytical techniques/methods use; and

5. The results of such analyses.

(b) Any Industrial User or WWF subject to the reporting requirements established in this rule (including documentation associated with Best Management Practices) shall be required to retain for a minimum of 3 years any records of monitoring activities and results (whether or not such monitoring activities are required by this rule) and shall

make such records available for inspection and copying by the Director and the Regional Administrator (and WWF in the case of an Industrial User). This period of retention shall be extended during the course of any unresolved litigation regarding the Industrial User or WWF or when requested by the Director or the Regional Administrator.

(c) Any WWF to which reports are submitted by an Industrial User pursuant to paragraphs (2), (4), (5), and (8) of this rule shall retain such reports for a minimum of 3 years and shall make such reports available for inspection and copying by the Director and the Regional Administrator. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the Industrial User or the operation of the WWF Pretreatment Program or when requested by the Director or the Regional Administrator.

(16) The Industrial User shall notify the WWF, the EPA Regional Waste Management Division Director, and State hazardous waste authorities in writing of any discharge into the WWF of a substance, which, if otherwise disposed of, would be a hazardous waste under 1200-1-11.

(a) Such notification must include the name of the hazardous waste as set forth in 1200-1-11, the EPA hazardous waste number, and the type of discharge (continuous, batch, or other). If the Industrial User discharges more than 100 kilograms of such waste per calendar month to the WWF, the notification shall also contain the following information to the extent such information is known and readily available to the Industrial User: An identification of the hazardous constituents contained in the wastes, an estimation of the mass and concentration of such constituents in the wastestream discharged during that calendar month, and an estimation of the mass of constituents in the wastestream expected to be discharged during the following twelve months. All notifications must take place within 180 days of the effective date of this rule. Industrial users who commence discharging after the effective date of this rule shall provide the notification no later than 180 days after the discharge of the listed or characteristic hazardous waste. Any notification under this paragraph need be submitted only once for each hazardous waste discharged. However, notifications of changed discharges must be submitted under 1200-4-14-.12 (10). The notification requirement in this rule does not apply to pollutants already reported under the self-monitoring requirements of 1200-4-14-.12 (2), (4), and (5).

(b) Dischargers are exempt from the requirements of subparagraph (a) of this paragraph during a calendar month in which they discharge no more than fifteen kilograms of hazardous wastes, unless the wastes are acute hazardous wastes as specified in 1200-1-11-.02(4)(a) and (4)(d). Discharge of more than fifteen kilograms of non-acute hazardous wastes in a calendar month, or of any quantity of acute hazardous wastes as specified in 1200-1-11-.02(4)(a) and (4)(d), requires a one-time notification. Subsequent months during which the Industrial User discharges more than such quantities of any hazardous waste do not require additional notification.

(c) In the case of any new regulations under section 3001 of RCRA identifying additional characteristics of hazardous waste or listing any additional substance as a hazardous waste, the Industrial User must notify the WWF, the EPA Regional Waste Management Waste Division Director, and State hazardous waste authorities of the discharge of such substance within 90 days of the effective date of such regulations.

(d) In the case of any notification made under this paragraph, the Industrial User shall certify that it has a program in place to reduce the volume and toxicity of hazardous wastes generated to the degree it has determined to be economically practical.

(Rule 1200-4-14-.12, continued)

(17) Annual certification by Non-Significant Categorical Industrial Users. A facility determined to be a Non-Significant Categorical Industrial User pursuant to subparagraph (b) in the definition of "Significant Industrial User" in 1200-4-14-.03(1) must annually submit the following certification statement, signed in accordance with the signatory requirements in 1200-4-14-.12(12). This certification must accompany an alternative report required by the Control Authority:

> Based on my inquiry of the person or persons directly responsible for managing compliance with the categorical Pretreatment Standards under 40 CFR ____, I certify that, to the best of my knowledge and belief that during the period from _____, _____ to _____, _____ [months, days, year]:
> (a) The facility described as _____ [facility name] met the definition of a non-significant categorical Industrial User as described in subparagraph (b) in the definition of "Significant Industrial User" in 1200-4-14-.03(1); (b) the facility compiled with all applicable Pretreatment Standards and requirements during this reporting period; and (c) the facility never discharged more than 100 gallons of total categorical wastewater on any given day during this reporting period. This compliance certification is based upon the following information.
>
> _____
>
> _____

(18) The Control Authority that chooses to receive electronic documents must satisfy the requirements of 40 CFR Part 3 (Electronic reporting).

Authority: *T.C.A. §§ 69-3-101 et seq. and 4-5-201 et seq.* ***Administrative History:*** *Original rule filed March 16, 2007; effective May 30, 2007.*

1200-4-14-.13 VARIANCES FROM CATEGORICAL PRETREATMENT STANDARDS FOR FUNDAMENTALLY DIFFERENT FACTORS.

(1) Definition. The term Requester means an Industrial User or a WWF or other interested person seeking a variance from the limits specified in a categorical Pretreatment Standard.

(2) Purpose and scope. In establishing categorical Pretreatment Standards for existing sources, the Division will take into account all the information it can collect, develop and solicit regarding the factors relevant to pretreatment standards under section 307(b) of the Federal Clean Water Act. In some cases, information which may affect these Pretreatment Standards will not be available or, for other reasons, will not be considered during their development. As a result, it may be necessary on a case-by-case basis to adjust the limits in categorical Pretreatment Standards, making them either more or less stringent, as they apply to a certain Industrial User within an industrial category or subcategory. This will only be done if data specific to that Industrial User indicates it presents factors fundamentally different from those considered by EPA in developing the limit at issue. Any interested person believing that factors relating to an Industrial User are fundamentally different from the factors considered during development of a categorical Pretreatment Standard applicable to that User and further, that the existence of those factors justifies a different discharge limit than specified in the applicable categorical Pretreatment Standard, may request a fundamentally different factors variance under this section or such a variance request may be initiated by the Division.

(3) Criteria—

(a) General criteria. A request for a variance based upon fundamentally different factors shall be approved only if:

1. There is an applicable categorical Pretreatment Standard which specifically controls the pollutant for which alternative limits have been requested; and

2. Factors relating to the discharge controlled by the categorical Pretreatment Standard are fundamentally different from the factors considered by EPA in establishing the Standards; and

3. The request for a variance is made in accordance with the procedural requirements in paragraphs (7) and (8) of this rule.

(b) Criteria applicable to less stringent limits. A variance request for the establishment of limits less stringent than required by the Standard shall be approved only if:

1. The alternative limit requested is no less stringent than justified by the fundamental difference;

2. The alternative limit will not result in a violation of prohibitive discharge standards prescribed by or established under 1200-4-14-.05;

3. The alternative limit will not result in a non-water quality environmental impact (including energy requirements) fundamentally more adverse than the impact considered during development of the Pretreatment Standards; and

4. Compliance with the Standards (either by using the technologies upon which the Standards are based or by using other control alternatives) would result in either:

(i) A removal cost (adjusted for inflation) wholly out of proportion to the removal cost considered during development of the Standards; or

(ii) A non-water quality environmental impact (including energy requirements) fundamentally more adverse than the impact considered during development of the Standards.

(c) Criteria applicable to more stringent limits. A variance request for the establishment of limits more stringent than required by the Standards shall be approved only if:

1. The alternative limit request is no more stringent than justified by the fundamental difference; and

2. Compliance with the alternative limit would not result in either:

(i) A removal cost (adjusted for inflation) wholly out of proportion to the removal cost considered during development of the Standards; or

(ii) A non-water quality environmental impact (including energy requirements) fundamentally more adverse than the impact considered during development of the Standards.

(4) Factors considered fundamentally different. Factors which may be considered fundamentally different are:

(a) The nature or quality of pollutants contained in the raw waste load of the User's process wastewater:

(Rule 1200-4-14-.13, continued)

(b) The volume of the User's process wastewater and effluent discharged;

(c) Non-water quality environmental impact of control and treatment of the User's raw waste load;

(d) Energy requirements of the application of control and treatment technology;

(e) Age, size, land availability, and configuration as they relate to the User's equipment or facilities; processes employed; process changes; and engineering aspects of the application of control technology;

(f) Cost of compliance with required control technology.

(5) Factors which will not be considered fundamentally different. A variance request or portion of such a request under this section may not be granted on any of the following grounds:

(a) The feasibility of installing the required waste treatment equipment within the time the Federal Clean Water Act allows;

(b) The assertion that the Standards cannot be achieved with the appropriate waste treatment facilities installed, if such assertion is not based on factors listed in paragraph (4) of this rule;

(c) The User's ability to pay for the required waste treatment; or

(d) The impact of a discharge on the quality of the WWF's receiving waters.

(6) Local law. Nothing in this rule chapter shall be construed to impair the right of any locality under section 510 of the Clean Water Act to impose more stringent limitations than required by State or Federal law.

(7) Application deadline.

(a) Requests for a variance and supporting information must be submitted in writing to the Director or to the Administrator (or his delegate), as appropriate.

(b) In order to be considered, a request for a variance must be submitted no later than 180 days after the date on which a categorical Pretreatment Standard is published in the Federal Register.

(c) Where the User has requested a catergorical determination pursuant to 1200-4-14-.06(1), the User may elect to await the results of the category determination before submitting a variance request under this section. Where the User so elects, he or she must submit the variance request within 30 days after a final decision has been made on the categorical determination pursuant to 1200-4-14-.06(1)(d).

(8) Contents submission. Written submissions for variance requests, whether made to the Administrator (or his delegate) or the Director, must include:

(a) The name and address of the person making the request;

(b) Identification of the interest of the Requester, which is affected by the categorical Pretreatment Standard for which the variance is requested;

(Rule 1200-4-14-.13, continued)

(c) Identification of the WWF currently receiving the waste from the Industrial User for which alternative discharge limits are requested;

(d) Identification of the categorical Pretreatment Standards which are applicable to the Industrial User;

(e) A list of each pollutant or pollutant parameter for which an alternative discharge limit is sought;

(f) The alternative discharge limits proposed by the Requester for each pollutant or pollutant parameter identified in subparagraph (e) of this paragraph;

(g) A description of the Industrial User's existing water pollution control facilities;

(h) A schematic flow representation of the Industrial User's water system including water supply, process wastewater systems, and points of discharge; and

(i) A Statement of facts clearly establishing why the variance request should be approved, including detailed support data, documentation, and evidence necessary to fully evaluate the merits of the request, e.g., technical and economic data collected by the EPA and used in developing each pollutant discharge limit in the Pretreatment Standard.

(9) Deficient requests. The Administrator (or his delegate) or the Director will only act on written requests for variances that contain all of the information required. Persons who have made incomplete submissions will be notified by the Administrator (or his delegate) or the Director that their requests are deficient and unless the time period is extended, will be given up to thirty days to remedy the deficiency. If the deficiency is not corrected within the time period allowed by the Administrator (or his delegate) or the Director, the request for a variance shall be denied.

(10) Public notice. Upon receipt of a complete request, the Administrator (or his delegate) or the Director will provide notice of receipt, opportunity to review the submission, and opportunity to comment.

(a) The public notice shall be circulated in a manner designed to inform interested and potentially interested persons of the request. Procedures for the circulation of public notice shall include mailing notices to:

1. The WWF into which the Industrial User requesting the variance discharges;

2. Adjoining States whose waters may be affected; and

3. Designated 208 planning agencies, Federal and State fish, shellfish and wildlife resource agencies; and to any other person or group who has requested individual notice, including those on appropriate mailing lists.

(b) The public notice shall provide for a period not less than 30 days following the date of the public notice during which time interested persons may review the request and submit their written views on the request.

(c) Following the comment period, the Administrator (or his delegate) or the Director will make a determination on the request taking into consideration any comments received. Notice of this final decision shall be provided to the requester (and the Industrial User

(Rule 1200-4-14-.13, continued)

for which the variance is requested if different), the WWF into which the Industrial User discharges and all persons who submitted comments on the request.

(11) Review of requests by state.

(a) Where the Director finds that fundamentally different factors do not exist, he may deny the request and notify the requester (and Industrial User where they are not the same) and the WWF of the denial.

(b) Where the Director finds that fundamentally different factors do exist, he shall forward the request, with a recommendation that the request be approved, to the Administrator (or his delegate).

(12) Review of requests by EPA. See 40 CFR Part 403.13(l) for the procedures EPA uses to review requests.

(13) Request for hearing.

(a) Within 30 days following the date of receipt of the notice of the decision of the Administrator's delegate on a variance request, the requester or any other interested person may submit a petition to the Regional Administrator for a hearing to reconsider or contest the decision. If such a request is submitted by a person other than the Industrial User the person shall simultaneously serve a copy of the request on the Industrial User.

(b) If the Regional Administrator declines to hold a hearing and the Regional Administrator affirms the findings of the Administrator's delegate the requester may submit a petition for a hearing to the Environmental Appeals Board (which is described in 40 CFR part 1.25) within 30 days of the Regional Administrator's decision.

Authority: *T.C.A. §§ 69-3-101 et seq. and 4-5-201 et seq.* ***Administrative History:*** *Original rule filed March 16, 2007; effective May 30, 2007.*

1200-4-14-.14 CONFIDENTIALITY.

(1) In accordance with T.C.A. § 69-3-113, any information submitted to the Division pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions, or, in the case of other submissions, by stamping the words “confidential business information” on each page containing such information. If no claim is made at the time of submission, the Division may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR part 2 (Public Information).

(2) Effluent data. Information and data provided to the Control Authority pursuant to this part which is effluent data shall be available to the public without restriction.

(3) State or WWF. All other information which is submitted to the State or WWF shall be available to the public at least to the extent provided by T.C.A. §§ 10-7-501 et seq.

Authority: *T.C.A. §§ 69-3-101 et seq. and 4-5-201 et seq.* ***Administrative History:*** *Original rule filed March 16, 2007; effective May 30, 2007.*

1200-4-14-.15 NET/GROSS CALCULATION.

(Rule 1200-4-14-.15, continued)

(1) Application. Categorical Pretreatment Standards may be adjusted to reflect the presence of pollutants in the Industrial User's intake water in accordance with this section. Any Industrial User wishing to obtain credit for intake pollutants must make application to the Control Authority. Upon request of the Industrial User, the applicable Standard will be calculated on a "net" basis (i.e., adjusted to reflect credit for pollutants in the intake water) if the requirements of paragraph (2) of this rule are met.

(2) Criteria.

(a) Either:

1. The applicable categorical Pretreatment Standards contained in 40 CFR subchapter N specifically provide that they shall be applied on a net basis; or

2. The Industrial User demonstrates that the control system it proposes or uses to meet applicable categorical Pretreatment Standards would, if properly installed and operated, meet the Standards in the absence of pollutants in the intake waters.

(b) Credit for generic pollutants such as biochemical oxygen demand (BOD), total suspended solids (TSS), and oil and grease should not be granted unless the Industrial User demonstrates that the constituents of the generic measure in the User's effluent are substantially similar to the constituents of the generic measure in the intake water or unless appropriate additional limits are placed on process water pollutants either at the outfall or elsewhere.

(c) Credit shall be granted only to the extent necessary to meet the applicable categorical Pretreatment Standard(s), up to a maximum value equal to the influent value. Additional monitoring may be necessary to determine eligibility for credits and compliance with Standard(s) adjusted under this section.

(d) Credit shall be granted only if the User demonstrates that the intake water is drawn from the same body of water as that into which the WWF discharges. The Control Authority may waive this requirement if it finds that no environmental degradation will result.

Authority: *T.C.A. §§ 69-3-101 et seq. and 4-5-201 et seq.* ***Administrative History:*** *Original rule filed March 16, 2007; effective May 30, 2007.*

1200-4-14-.16 UPSET PROVISION.

(1) Definition. For the purposes of this Rule Chapter, Upset means an exceptional incident in which there is unintentional and temporary noncompliance with categorical Pretreatment Standards because of factors beyond the reasonable control of the Industrial User. An Upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(2) Effect of an upset. An Upset shall constitute an affirmative defense to an action brought for noncompliance with categorical Pretreatment Standards if the requirements of paragraph (3) of this rule are met.

(Rule 1200-4-14-.16, continued)

(3) Conditions necessary for a demonstration of upset. An Industrial User who wishes to establish the affirmative defense of Upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(a) An Upset occurred and the Industrial User can identify the cause(s) of the Upset;

(b) The facility was at the time being operated in a prudent and workman-like manner and in compliance with applicable operation and maintenance procedures;

(c) The Industrial User has submitted the following information to the WWF and Control Authority within 24 hours of becoming aware of the Upset (if this information is provided orally, a written submission must be provided within five days):

1. A description of the Indirect discharge and cause of noncompliance;

2. The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue;

3. Steps being taken and/or planned to reduce, eliminate and prevent recurrence of the noncompliance.

(4) Burden of proof. In any enforcement proceeding the Industrial User seeking to establish the occurrence of an Upset shall have the burden of proof.

(5) Reviewability of agency consideration of claims of upset. In the usual exercise of prosecutorial discretion, Agency enforcement personnel should review any claims that non-compliance was caused by an Upset. No determinations made in the course of the review constitute final Agency action subject to judicial review. Industrial Users will have the opportunity for a judicial determination on any claim of Upset only in an enforcement action brought for noncompliance with categorical Pretreatment Standards.

(6) User responsibility in case of upset. The Industrial User shall control production of all discharges to the extent necessary to maintain compliance with categorical Pretreatment Standards upon reduction, loss, or failure of its treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost or fails.

Authority: *T.C.A. §§ 69-3-101 et seq. and 4-5-201 et seq.* ***Administrative History:*** *Original rule filed March 16, 2007; effective May 30, 2007.*

1200-4-14-.17 BYPASS.

(1) Definitions.

(a) Bypass means the intentional diversion of wastestreams from any portion of an Industrial User's treatment facility.

(b) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

(2) Bypass not violating applicable Pretreatment Standards or Requirements. An Industrial User may allow any bypass to occur which does not cause Pretreatment Standards or Requirements

to be violated, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (3) and (4) of this rule.

(3) Notice.

(a) If an Industrial User knows in advance of the need for a bypass, it shall submit prior notice to the Control Authority, if possible at least ten days before the date of the bypass.

(b) An Industrial User shall submit oral notice of an unanticipated bypass that exceeds applicable Pretreatment Standards to the Control Authority within 24 hours from the time the Industrial User becomes aware of the bypass. A written submission shall also be provided within 5 days of the time the Industrial User becomes aware of the bypass. The written submission shall contain a description of the bypass and its cause; the duration of the bypass, including exact dates and times, and, if the bypass has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass. The Control Authority may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

(4) Prohibition of bypass.

(a) Bypass is prohibited, and the Control Authority may take enforcement action against an Industrial User for a bypass, unless;

1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and

3. The Industrial User submitted notices as required under paragraph (3) of this rule.

(b) The Control Authority may approve an anticipated bypass, after considering its adverse effects, if the Control Authority determines that it will meet the three conditions listed in subparagraph (4)(a) of this paragraph.

Authority: *T.C.A. §§ 69-3-101 et seq. and 4-5-201 et seq.* ***Administrative History:*** *Original rule filed March 16, 2007; effective May 30, 2007.*

1200-4-14-.18 MODIFICATION OF WWF PRETREATMENT PROGRAMS.

(1) General. Either the Approval Authority or a WWF with an approved WWF Pretreatment Program may initiate program modification at any time to reflect changing conditions at the WWF. Program modification is necessary whenever there is a significant change in the operation of a WWF Pretreatment Program that differs from the information in the WWF's submission, as approved under 1200-4-14-.11.

(2) Substantial modifications defined. Substantial modifications include:

(1200-4-14-.18, continued)

(a) Modifications that relax WWF legal authorities (as described in 1200-4-14-.08(6)(a)), except for modifications that directly reflect a revision to this rule chapter or to 40 CFR chapter I, subchapter N, and are reported pursuant to paragraph (4) of this rule;

(b) Modifications that relax local limits, except for the modifications to local limits for pH and reallocations of the Maximum Allowable Industrial Loading of a pollutant that do not increase the total industrial loadings for the pollutant, which are reported pursuant to paragraph (4) of this rule. Maximum Allowable Industrial Loading means the total mass of a pollutant that all Industrial Users of a WWF (or a subgroup of Industrial Users identified by the WWF) may discharge pursuant to limits developed under 1200-4-14-.05(3);

(c) Changes to the WWF's control mechanism, as described in 1200-4-14-.08(6)(a)3;

(d) A decrease in the frequency of self-monitoring or reporting required of industrial users;

(e) A decrease in the frequency of industrial user inspections or sampling by the WWF;

(f) Changes to the WWF's confidentiality procedures; and

(g) Other modifications designated as substantial modifications by the Approval Authority on the basis that the modification could have a significant impact on the operation of the WWF's Pretreatment Program; could result in an increase in pollutant loadings at the WWF; or could result in less stringent requirements being imposed on Industrial Users of the WWF.

(3) Approval procedures for substantial modifications.

(a) The WWF shall submit to the Approval Authority a statement of the basis for the desired program modification, a modified program description (see 1200-4-14-.09(2)), or such other documents the Approval Authority determines to be necessary under the circumstances.

(b) The Approval Authority shall approve or disapprove the modification based on the requirements of 1200-4-14-.08(6) and using the procedures in 1200-4-14-.11(2) through (6), except as provided in subparagraphs (c) and (d) of this paragraph. The modification shall become effective upon approval by the Approval Authority.

(c) The Approval Authority need not publish a notice of decision under 1200-4-14-.11(5) provided: the notice of request for approval under 1200-4-14-.11(2)(a) states that the request will be approved if no comments are received by a date specified in the notice; no substantive comments are received; and the request is approved without change.

(d) Notices required by 1200-4-14-.11 may be performed by the WWF provided that the Approval Authority finds that the WWF notice otherwise satisfies the requirements of 1200-4-14-.11.

(4) Approval procedures for non-substantial modifications.

(a) The WWF shall notify the Approval Authority of any non-substantial modification at least 45 days prior to implementation by the WWF, in a statement similar to that provided for in subparagraph (3)(a) of this rule.

(1200-4-14-.18, continued)

(b) Within 45 days after the submission of the WWF's statement, the Approval Authority shall notify the WWF of its decision to approve or disapprove the non-substantial modification.

(c) If the Approval Authority does not notify the WWF within 45 days of its decision to approve or deny the modification, or to treat the modification as substantial under subparagraph (2)(g) of this rule, the WWF may implement the modification.

(5) Incorporation in permit. All modifications shall be incorporated into the WWF's NPDES permit upon approval. The permit will be modified to incorporate the approved modification in accordance with 40 CFR 122.63(g).

Authority: *T.C.A. §§ 69-3-101 et seq. and 4-5-201 et seq.* ***Administrative History:*** *Original rule filed March 16, 2007; effective May 30, 2007.*

APPENDICES A–C [RESERVED]

Authority: *T.C.A. §§ 69-3-101 et seq. and 4-5-201 et seq.* ***Administrative History:*** *Original rule filed March 16, 2007; effective May 30, 2007.*

APPENDIX D SELECTED INDUSTRIAL SUBCATEGORIES CONSIDERED DILUTE FOR PURPOSES OF THE COMBINED WASTESTREAM FORMULA

(1) The following industrial subcategories are considered to have dilute wastestreams for purposes of the combined wastestream formula. They either were or could have been excluded from categorical pretreatment standards pursuant to paragraph 8 of the Natural Resources Defense Council, Inc., et al. v. Costle Consent Decree for one or more of the following four reasons:

(a) The pollutants of concern are not detectable in the effluent from the industrial user (paragraph 8(a)(iii));

(b) the pollutants of concern are present only in trace amounts and are neither causing nor likely to cause toxic effects (paragraph 8(a)(iii));

(c) the pollutants of concern are present in amounts too small to be effectively reduced by technologies known to the Administrator (paragraph 8(a)(iii)); or

(d) the wastestream contains only pollutants which are compatible with the WWF (paragraph 8(b)(i)). In some instances, different rationales were given for exclusion under paragraph 8.

However, EPA has reviewed these subcategories and has determined that exclusion could have occurred due to one of the four reasons listed above. This list is complete as of October 9, 1986. It will be updated periodically for the convenience of the reader.

Auto and Other Laundries (40 CFR part 444)
Carpet and Upholstery Cleaning
Coin-Operated Laundries and Dry Cleaning
Diaper Services
Dry Cleaning Plants except Rug Cleaning
Industrial Laundries
Laundry and Garment Services, Not Elsewhere Classified
Linen Supply
Power Laundries, Family and Commercial

(Appendix D, continued)

Electrical and Electronic Components [1] (40 CFR part 469)
- Capacitors (Fluid Fill)
- Carbon and Graphite Products
- Dry Transformers
- Ferrite Electronic Devices
- Fixed Capacitors
- Fluorescent Lamps
- Fuel Cells
- Incandescent Lamps
- Magnetic Coatings
- Mica Paper Dielectric
- Motors, Generators, Alternators
- Receiving and Transmitting Tubes
- Resistance Heaters
- Resistors
- Swithchgear
- Transformer (Fluid Fill)

Metal Molding and Casting (40 CFR part 464)
- Nickel Casting
- Tin Casting
- Titanium Casting

Gum and Wood Chemicals (40 CFR part 454)
- Char and Charcoal Briquets

Inorganic Chemicals Manufacturing (40 CFR part 415)
- Ammonium Chloride
- Ammonium Hydroxide
- Barium Carbonate
- Calcium Carbonate
- Carbon Dioxide
- Carbon Monoxide and Byproduct Hydrogen
- Hydrochloric Acid
- Hydrogen Peroxide (Organic Process)
- Nitric Acid
- Oxygen and Nitrogen
- Potassium Iodide
- Sodium Chloride (Brine Mining Process)
- Sodium Hydrosulfide
- Sodium Hydrosulfite
- Sodium Metal
- Sodium Silicate
- Sodium Thiosulfate
- Sulfur Dioxide
- Sulfuric Acid

Leather (40 CFR part 425)
- Gloves
- Luggage

Paving and Roofing (40 CFR part 443)
- Asphalt Concrete
- Asphalt Emulsion

(Appendix D, continued)

Linoleum
Printed Asphalt Felt
Roofing

Pulp, Paper, and Paperboard, and Builders' Paper and Board Mills (40 CFR parts 430 and 431)
Groundwood-Chemi-Mechanical

Rubber Manufacturing (40 CFR part 428)
Tire and Inner Tube Plants
Emulsion Crumb Rubber
Solution Crumb Rubber
Latex Rubber
Small-sized General Molded, Extruded and Fabricated Rubber Plants, [2]
Medium-sided General Molded, Extruded and Fabricated Rubber Plants [2]
Large-sized General Molded, Extruded and Fabricated Rubber Plants [2]
Wet Digestion Reclaimed Rubber
Pan, Dry Digestion, and Mechanical Reclaimed Rubber
Latex Dipped, Latex-Extruded, and Latex-Molded Rubber [3]
Latex Foam [4]

Soap and Detergent Manufacturing (40 CFR part 417)
Soap Manufacture by Batch Kettle
Fatty Acid Manufacture by Fat Splitting
Soap Manufacture by Fatty Acid
Neutralization
Glycerine Concentration
Glycerine Distillation
Manufacture of Soap Flakes and Powders
Manufacture of Bar Soaps
Manufacture of Liquid Soaps
Manufacture of Spray Dried Detergents
Manufacture of Liquid Detergents
Manufacture of Dry Blended Detergents
Manufacture of Drum Dried Detergents
Manufacture of Detergent Bars and Cakes

Textile Mills (40 CFR part 410)
Apparel manufacturing
Cordage and Twine
Padding and Upholstery Filling

Timber Products Processing (40 CFR part 429)
Barking Process
Finishing Processes
Hardboard—Dry Process

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[1]Footnote: The Paragraph 8 exemption for the manufacture of products in the Electrical and Electronic Components Category is for operations not covered by Electroplating/Metal Finishing pretreatment regulations (40 CFR parts 413/433).

[2]Footnote: Except for production attributed to lead-sheathed hose manufacturing operations.

[3]Footnote: Except for production attributed to chromic acid form-cleaning operations.

(Appendix D, continued)

[4]Footnote: Except for production that generates zinc as a pollutant in discharge.

Authority: *T.C.A. §§ 69-3-101 et seq. and 4-5-201 et seq.* ***Administrative History:*** *Original rule filed March 16, 2007; effective May 30, 2007.*

APPENDIX E SAMPLING PROCEDURES

(1) Composite Method

(a) It is recommended that influent and effluent operational data be obtained through 24-hour flow proportional composite samples. Sampling may be done manually or automatically, and discretely or continuously. If discrete sampling is employed, at least 12 aliquots should be composited. Discrete sampling may be flow proportioned either by varying the time interval between each aliquot or the volume of each aliquot. All composites should be flow proportional to either the stream flow at the time of collection of the influent aliquot or to the total influent flow since the previous influent aliquot. Volatile pollutant aliquots must be combined in the laboratory immediately before analysis.

(b) Effluent sample collection need not be delayed to compensate for hydraulic detention unless the WWF elects to include detention time compensation or unless the Approval Authority requires detention time compensation. The Approval Authority may require that each effluent sample is taken approximately one detention time later than the corresponding influent sample when failure to do so would result in an unrepresentative portrayal of actual WWF operation. The detention period should be based on a 24-hour average daily flow value. The average daily flow should in turn be based on the average of the daily flows during the same month of the previous year.

(2) Grab Method

If composite sampling is not an appropriate technique, grab samples should be taken to obtain influent and effluent operational data. A grab sample is an individual sample collected over a period of time not exceeding 15 minutes. The collection of influent grab samples should precede the collection of effluent samples by approximately one detention period except that where the detention period is greater than 24 hours such staggering of the sample collection may not be necessary or appropriate. The detention period should be based on a 24-hour average daily flow value. The average daily flow should in turn be based upon the average of the daily flows during the same month of the previous year. Grab sampling should be employed where the pollutants being evaluated are those, such as cyanide and phenol, which may not be held for an extended period because of biological, chemical or physical interaction which take place after sample collection and affect the results.

Authority: *T.C.A. §§ 69-3-101 et seq. and 4-5-201 et seq.* ***Administrative History:*** *Original rule filed March 16, 2007; effective May 30, 2007.*

APPENDIX F [RESERVED]

Authority: *T.C.A. §§ 69-3-101 et seq. and 4-5-201 et seq.* ***Administrative History:*** *Original rule filed March 16, 2007; effective May 30, 2007.*

APPENDIX G POLLUTANTS ELIGIBLE FOR A REMOVAL CREDIT

I. Regulated Pollutants in Part 503 Eligible for a Removal Credit

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Use or disposal practice

(Appendix G, continued)

Pollutants	LA	SD	I
Arsenic	X	X	X
Beryllium			X
Cadmium	X		X
Chromium		X	X
Copper	X		
Lead	X		X
Mercury	X		X
Molybdenum	X		
Nickel	X	X	X
Selenium	X		
Zinc	X		
Total hydrocarbons			X \1\

Key:
LA_land application.
SD_surface disposal site without a liner and leachate collection system.
I_firing of sewage sludge in a sewage sludge incinerator.
\1\ The following organic pollutants are eligible for a removal credit if the requirements for total hydrocarbons (or carbon monoxide) in subpart E in 40 CFR Part 503 are met when sewage sludge is fired in a sewage sludge incinerator: Acrylonitrile, Aldrin/Dieldrin(total), Benzene, Benzidine, Benzo(a)pyrene, Bis(2-chloroethyl)ether, Bis(2-ethylhexyl)phthalate, Bromodichloromethane, Bromoethane, Bromoform, Carbon tetrachloride, Chlordane, Chloroform, Chloromethane, DDD,DDE,DDT, Dibromochloromethane, Dibutyl phthalate, 1,2-dichloroethane, 1,1-dichloroethylene, 2,4-dichlorophenol, 1,3-dichloropropene, Diethyl phthalate, 2,4-dinitrophenol, 1,2-diphenylhydrazine, Di-n-butyl phthalate, Endosulfan, Endrin, Ethylbenzene, Heptachlor, Heptachlor epoxide, Hexachlorobutadiene, Alpha-hexachlorocyclohexane, Beta-hexachlorocyclohexane, Hexachlorocyclopentadiene, Hexachloroethane, Hydrogen cyanide, Isophorone, Lindane, Methylene chloride, Nitrobenzene, N-Nitrosodimethylamine, N-Nitrosodi-n-propylamine, Pentachlorophenol, Phenol, Polychlorinated biphenyls, 2,3,7,8-tetrachlorodibenzo-p-dioxin, 1,1,2,2,-tetrachloroethane, Tetrachloroethylene, Toluene, Toxaphene, Trichloroethylene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, and 2,4,6-Trichlorophenol.

II. Additional Pollutants Eligible for a Removal Credit
[Milligrams per kilogram_dry weight basis]

Pollutant	Use or disposal practice			
	LA	Surface disposal		I
		Unlined \1\	Lined \2\	
Arsenic			\3\ 100	
Aldrin/Dieldrin (Total)	2.7			
Benzene	\3\ 16	140	3400	

(Appendix G, continued)

Benzo(a)pyrene.....	15	\3\ 100	\3\ 100	.....…..
Bis(2-ethylhexyl)phthalate.....	.....	\3\ 100	\3\ 100	.....…..
Cadmium.....	.....	\3\ 100	\3\ 100	.....…..
Chlordane.....	86	\3\ 100	\3\ 100	.....…..
Chromium (total).....	\3\ 100	.....	\3\ 100	.....…..
Copper.....	…….	\3\ 46	100	1400
DDD, DDE, DDT (Total).....	1.2	2000	2000	.....…..
2,4 Dichlorophenoxy-acetic acid...	.....	7	7	.....…..
Fluoride.....	730	.....	.....	.....…..
Heptachlor.....	7.4	.....	.....	.....…..
Hexachlorobenzene.....	29	.....	.....	.....…..
Hexachlorobutadiene.....	600	.....	.....	.....…..
Iron.....	\3\ 78	.....	.....	.....…..
Lead.....	.....	\3\ 100	\3\ 100	.....…..
Lindane.....	84	\3\ 28	\3\ 28	.....…..
Malathion.....	.....	0.63	0.63	.....…..
Mercury.....	.....	\3\ 100	\3\ 100	.....…..
Molybdenum.....	.....	40	40	.....…..
Nickel.....	.....	.....	\3\ 100	.....…..
N-Nitrosodimethylamine.....	2.1	0.088	0.088	.....…..
Pentachlorophenol.....	30	.....	.....	.....…..
Phenol.....	.....	82	82	.....…..
Polychlorinated biphenyls.....	4.6	<50	<50	.....…..
Selenium.....	.....	4.8	4.8	4.8
Toxaphene.....	10	\3\ 26	\3\ 26	.....…..
Trichloroethylene.....	\3\ 10	9500	\3\ 10	.....…..
Zinc.....	.....	4500	4500	4500

\1\ Active sewage sludge unit without a liner and leachate collection system.
\2\ Active sewage sludge unit with a liner and leachate collection system.
\3\ Value expressed in grams per kilogram_dry weight basis.
Key: LA_land application.
I_incineration.

Authority: *T.C.A. §§ 69-3-101 et seq. and 4-5-201 et seq.* ***Administrative History:*** *Original rule filed March 16, 2007; effective May 30, 2007.*