WASTE GENERATOR DOCUMENTATION APPROVAL PROCESS RWAP-03

1.0 PURPOSE

1.1 Describe the process for evaluating and approving waste generator's waste certification program documents and waste streams to ensure compliance with the *Nevada National Security Site Waste Acceptance Criteria* (NNSSWAC). Successful completion of the approval process will authorize a waste generator to ship Department of Energy (DOE) Low-Level Waste (LLW) and Mixed Low-Level Waste (MLLW) to the Nevada National Security Site for disposal.

2.0 SCOPE

2.1 This instruction is applicable to the National Nuclear Security Administration Nevada Field Office (NNSA/NFO), Radioactive Waste Acceptance Program (RWAP) personnel in the review and approval of waste generator documents.

3.0 RESPONSIBILITIES AND AUTHORITIES

3.1 The NNSA/NFO, RWAP Task Manager (TM), or designee, has overall responsibility for the development, maintenance, and implementation of this instruction.

3.2 The following personnel have responsibilities as designated within the body of this instruction:

3.2.1 RWAP Task Manager (TM)
3.2.2 RWAP Manager (RM)
3.2.3 Waste Acceptance Review Panel (WARP)
3.2.4 Review Leads (RL)
3.2.5 Reviewers
3.2.6 WARP Lead
3.2.7 Classification Officer

4.0 DEFINITIONS

4.1 **Limited Review** – evaluation and acceptance of non-technical changes to approved Waste Profiles (WPs), which are performed and documented by the designated RL review lead.

4.2 **Review Lead -** Individual designated by the RM to coordinate review of waste certification program related documents submitted by waste generator.

4.3 **Real-Time-Radiography (RTR) -** a technique using real time x-ray images to inspect and verify the contents of a waste item or container.

4.4 **Subject Matter Expert –** Individual recognized as an expert based on formal training and/or experience in a designated technical field, program area, regulatory standard(s), or process.

4.5 **Waste Verification** – a process in which LLW and MLLW is physically and/or chemically examined to confirm the waste is compliant with the WP and NNSSWAC.

4.6 **Waste Acceptance Review Panel** (WARP) - RWAP technical support group designated to review and recommend approval of WPs, recommend the percent verification rate for MLLW profiles, initiate development of position papers, review generator documents, and provide recommendations on related technical issues to NNSA/NFO.

4.7 **Waste Profile** (WP) - a standardized document format used to identify the physical, chemical, and radiological characteristics of a waste stream.

4.8 **Waste Stream** - a waste or group of wastes from a specific process or facility having similar physical, chemical, and radiological properties.

5.0 ACRONYMS

5.1	CO	Classification Officer
5.2	DCC	Document Control Coordinator
5.3	DOE	United States, Department of Energy
5.4	DRS	Document Review Summary
5.5	LR	Limited Review
5.6	LLW	Low-Level Waste
5.7	LWIS	Low-Level Waste Information System
5.8	NCSE	Nuclear Criticality Safety Evaluation
5.9	NNSA/NFO	National Nuclear Security Administration Nevada Field Office
5.10	MLLW	Mixed Low-Level Waste
5.11	NNSS	Nevada National Security Site
5.12	NNSSWAC	Nevada National Security Site Waste Acceptance Criteria
5.13	NIC	NNSSWAC Implementation Crosswalk
5.14	QAP	Quality Assurance Plan
5.15	RAS	Review Assignment Sheet
5.16	RL	Review Lead
5.17	RM	RWAP Manager
5.18	RTR	Real-Time-Radiography
5.19	RWAP	Radioactive Waste Acceptance Program
5.20	RWMC	Radioactive Waste Management Complex
5.21	SME	Subject Matter Expert

5.21	TM	NNSA/NFO, RWAP Task Manager
5.22	WARP	Waste Acceptance Review Panel
5.23	WCPP	Waste Certification Program Plan
5.24	WP	Waste Profile

6.0 PROCEDURE

6.1 Document Receipt

6.1.1 The TM or RM receives waste generator documents (examples listed below) and forwards them to the assigned RL for processing and acceptance. Generator documents will be maintained by the RM on the designated RWAP share drive.

- Deviation Request (DR)
- Generator Authorized Certification Personnel List
- Mixed Waste Profile Annual Certification
- NNSSWAC Implementation Cross Walk (NIC)
- Pre-Treatment Notification Form (PTNF) for Mixed Waste
- Profile Termination Letter
- Quality Assurance Plan (QAP)
- Waste Certification Program Annual Independent Assessment
- Waste Certification Program Plan (WCPP)
- Waste Profile (WP)

6.1.2 The TM and/or RM determine which of the following actions are necessary based upon the type of document(s) submitted.

6.1.2.1 If a review is not warranted (i.e., changes in DOE points of contact or certification personnel, terminated WP, etc.), the TM/RM should acknowledge receipt with the generator and process the document(s) accordingly.

6.1.2.1.1 The RM notifies, as necessary, the Radioactive Waste Management Complex (RWMC) Supervisor, Low-Level Waste Information System (LWIS) Database Operator, and the RWAP Document Control Coordinator (DCC) of applicable changes in the generator's program.

6.1.2.2 If program documents (i.e., WCPP, QAP, and NIC, WP, or position paper) require a review, they are performed in accordance with Section 6.2, Document Review and/or Section 6.3, Waste Profile Review.

6.1.2.3 If program changes significantly affect the approved generator's waste certification program, a waste shipment suspension may be imposed until

the review is completed. In this event, the TM forwards a notification of suspension in accordance with Section 6.4.3.

6.1.2.4 If program changes warrant a facility evaluation, it will be conducted in accordance with RWAP-02, *Conduct of Waste Generator Facility Evaluations*.

6.1.3 If a formal documented review is necessary, the RM designates a Review Lead in accordance with Section 6.2 or 6.3 based on the type of document submitted.

6.2 Document Reviews

6.2.1 The RM designates a Review Lead (RL), identifies reviewers, and establishes the comment due date. Document Reviews are assigned through verbal communication and/or documented in an e-mail to the assigned RL. The RL will ensure required reviewers are provided the generator documents for review.

6.2.2 Assigned personnel review the generator documents to ensure compliance with the applicable NNSSWAC requirements. Comments are documented in accordance with Exhibit 4 and forwarded to the RL by the comment due date.

6.2.3 The RL compiles the comments to ensure conformity and to avert any duplication. If no comments are generated, the RL will continue in accordance with paragraph 6.2.6.

6.2.3.1 Conflicting or dissenting comments may be resolved by the RL or the RL may conduct a comment resolution meeting to validate the comments and reach a consensus among the reviewers.

6.2.3.2 Conflicting or dissenting comments that cannot be resolved will be presented to the TM / RM for a decision. The resulting decision will be documented in the comment resolutions and provided to the respective reviewers.

6.2.4 RL contacts the generator's representative to discuss comments and obtain a resolution, including corrected documentation, when required. The RL should establish a response due date with the generator to ensure timely resolution.

6.2.5 Upon receipt of the generator's responses and/or corrected documentation, the RL provides copies to the reviewers. Reviewers evaluate the responses for adequacy and forward any additional comments to the RL by the established due date. Any new comments are processed in accordance with paragraph 6.2.3, if necessary.

6.2.6 Upon completion of the review, the RL completes the Document Review Summary (DRS) (Exhibit 1), which summarizes the review activities, including resolution of

comments, generator responses, Corrective Action Requests (CARs) closure dates, if applicable, identify review personnel, and provide a final recommendation and/or additional action, as necessary.

6.2.6.1 The RL will verify if there are any open NNSA/NFO CARs awaiting actions from the waste generator. Open CARs will be evaluated by the RL to determine their impact to the generator's program and/or document approval. Depending on the deficiency, the RL may recommend a delay in final approval of the documents until the CAR(s) is closed.

6.2.7 The RL signs the DRS (Exhibit 1), which includes comment resolutions and supporting data, and forwards to the TM / RM for review and approval. If additional clarification or information is required, the TM/RM returns the DRS to the RL for action.

6.2.8 Upon approval of the DRS, the TM / RM will sign the DRS and instruct the RL to prepare a notification letter, if required, in accordance with Section 6.4 and a Memorandum for the Record (MFR) in accordance with Section 6.5.

6.3 Waste Profile (WP) Review

6.3.1 The TM or RM designates the RL, determines if a Limited Review (LR) can be performed in accordance with Exhibit 5, identifies reviewers, and establishes a comment due date. The RM will distribute notification of the assignment and WP to the RL and designated reviewers, as applicable.

6.3.1.1 If the generator identifies the WP as a classified document or contains classified information, the RM will contact the Classification Office to ensure appropriate controls are maintained during processing.

6.3.1.2 If a revised WP is designated for a LR, the assigned RL will conduct the review with the minimum reviewers, if any, as specified on the RAS. The RL must ensure the revised WP continues to satisfy NNSSWAC requirements and complete required documentation for Waste Acceptance Review Panel (WARP) approval in accordance with paragraph 6.3.8.

6.3.1.3 WPs must demonstrate that packaged waste will comply with the limits specified in the NNSSWAC or a reviewed and accepted Nuclear Criticality Safety Evaluation (NCSE) is provided and/or referenced in the WP. When a NCSE has not been previously accepted, including a new revision, the RL or designee will forward the waste profile and NCSE to the M&O Defense Facilities and Nuclear Operations Organization for review. Prior to WP approval the M&O Defense Facilities and Nuclear Operations Criticality Safety Engineer must provide written approval or rejection of the NCSE.

6.3.2 Reviewers evaluate the WP and supporting data to ensure compliance with the NNSSWAC. All waste profiles will need to be evaluated by a Performance Assessment Representative in accordance with Exhibit 2. Comments are documented in accordance with Exhibit 4 and forwarded to the RL by the due date.

6.3.2.1 If the waste stream is for MLLW, reviewers shall:

- Evaluate the WP and/or Pre-Treatment Notification Form for Mixed Waste to ensure compliance with the NNSSWAC.
- Propose a physical verification percentage and screening method(s) or document reasons the waste is not verifiable.
- Propose a chemical screening percentage, minimum of 10% of MLLW physically verified or determine if the waste stream is exempt from chemical screening.
- If applicable, review the Mixed Waste Profile Annual Certification to ensure compliance with the NNSSWAC and evaluate the performance results from the previous year's verification and screening. Propose a verification percentage and physical screening method (i.e. Real-Time-Radiography or visual verification) for the waste stream undergoing annual recertification.

6.3.4 The RL compiles the comments to ensure conformity and to avert any duplication. If there are no comments and MLLW verification is not required for the waste stream, the RL documents the waste stream recommendation for approval by the RWAP TM.

6.3.4.1 Conflicting or dissenting comments may be resolved by the RL or the RL may conduct a comment resolution meeting to validate the comments and reach a consensus among the reviewers.

6.3.4.2 Conflicting or dissenting comments that cannot be resolved by the RL will be presented to the WARP for resolution. The results will be documented in the comment resolutions and provided to reviewers.

6.3.5 RL or designee will attend the next scheduled WARP meeting to discuss compiled comments, present verification recommendations, if applicable, and clarify actions required to complete the review process.

6.3.5.1 For MW streams, the WARP will establish the verification screening method(s) and percentage of containers to be verified. The RL documents the WARP decisions in the waste stream recommendation for approval.

6.3.6 The RL contacts the generator to discuss comments and obtain a resolution, including corrected documentation, when required. The RL should establish a response due date with the generator to ensure timely resolution.

6.3.7 Upon receipt of the generator's response and/or corrected documents, the RL provides a copy to the reviewers. The reviewers evaluate the responses for adequacy and forward any additional comments to the RL by the established due date. Any new comments are processed in accordance with paragraph 6.3.4.

6.3.7.1 The RL will verify if there are any open NNSA/NFO CARs awaiting actions from the waste generator. Open CARs will be evaluated by the RL to determine their impact to the generator's program and/or waste stream approval. Depending on the deficiency, the RL may recommend a delay in final approval of the WP until the CAR(s) is closed.

6.3.8 The RL documents the waste stream recommendation. RL or designee attends the next scheduled WARP meeting to discuss the WP and presents the waste stream recommendation for approval by WARP members.

6.3.9 Based on WARP recommendations, the TM/RM initiate one of the following actions:

6.3.9.1 Schedule waste verification at the generator's facility in accordance with RWAP-09, *Waste Verification Process*

6.3.9.2 "Approve" or "Conditional Approval," and initiate the approval letter in accordance with Section 6.4.2.

6.3.9.3 "Suspend," the generator's waste stream(s) or waste certification program and initiate the suspension letter in accordance with Section 6.4.3.

6.3.9.4 "Reject" the generator's WP(s) or waste certification program and initiate a rejection letter in accordance with Section 6.4.4.

6.3.9.5 Conduct surveillance in accordance with RWAP-02, *Conduct of Waste Generator Facility Evaluations*.

6.3.10 Upon WARP approval of the waste stream recommendation, the RL initiates a MFR in accordance with Section 6.5.

6.4 <u>Generator Notification</u>

6.4.1 The results of RWAP activities (i.e., facility evaluations, document reviews, WP reviews) are documented in an appropriate notification letter (i.e., approval, conditional approval, suspension, or rejection) from NNSA/NFO to the responsible DOE/NNSA Field Office and waste generator. The letter serves as formal notification to the generator regarding the status of their waste certification program and/or any additional actions required to satisfy the NNSSWAC.

6.4.2 Approval / Conditional Approval - The RL prepares a draft approval letter, which includes the following information, as applicable, and presents it to the TM for review and approval in accordance with paragraph 6.4.5.

6.4.2.1 Reference the NNSSWAC as the evaluation requirement.

6.4.2.2 Facility Evaluation number and results.

6.4.2.3 Enclosure detailing current program approvals held by the waste generator. The current enclosures are maintained by the DCC.

6.4.2.4 Conditional approvals clearly describe the condition and action necessary to obtain full approval. Conditional Approvals will also be clearly noted on the enclosures and tracked until full approval can be obtained.

6.4.3 Suspension - NNSA/NFO may suspend a generator's waste certification program or waste stream(s) if the review determines the requirements of the NNSSWAC have not been satisfied or effectively implemented.

6.4.3.1 The RM determines if the condition warrants a recommendation for suspension. Upon concurring with the suspension, the TM will notify the affected DOE/NNSA Field Office of the suspension.

6.4.3.2 The TM/RM will notify the RWMC Supervisor of the suspension with instructions not to accept any further shipments of the effected waste stream(s), except those already in transit.

6.4.3.3 The RM instructs the M&O LWIS Database Operator to update the LWIS to indicate that the affected waste streams are suspended.

6.4.3.4 The TM/RM will initiate a CAR in accordance with RWAP-07, *Corrective Action Requests,* and prepare a draft suspension letter for concurrence by NNSA/NFO in accordance with paragraph 6.4.5.

6.4.4 Reject - NNSA/NFO may reject a generator's waste certification program plan, WP(s), CAR responses, or other related documents if it is determined the requirements of the NNSSWAC have not been satisfied or effectively implemented.

6.4.4.1 The TM/RM determines if the condition warrants a rejection of the documents and instructs the RL to prepare a draft notification letter detailing the reason for rejection. The TM will review and obtain NNSA/NFO approval of the letter in accordance with paragraph 6.4.5.

6.4.5 Upon obtaining NNSA/NFO concurrence with the notification letter, the TM forwards it to the responsible DOE Field Office and waste generator. Copies are provided to DOE Headquarters, RWMC Supervisor, M&O LWIS Database Operator, RM, and Nevada Division of Environmental Protection (NDEP) as applicable.

6.5 Memorandums for the Record (MFR)

6.5.1 Upon completion of the review, the RL prepares a draft MFR for approval by the TM. The MFR identifies the records initiated during the review process and is prepared in accordance with RWAP-05, *Records Management.*

7.0 FORMS

7.1 Review Assignment Sheet (generated from M&O LWIS database)

7.2 Document Review Summary (Exhibit 1)

7.4 Generator Evaluation Form (Exhibit 3-1)

8.0 RECORDS

8.1 The following records are generated during implementation of this instruction and are processed in accordance with instruction RWAP-05, *Records Management*. RWAP personnel who generate records are responsible for ensuring the content and information presented complies with the requirements of this instruction.

8.1.1 Document Review Summary

8.1.2 Waste Stream Recommendation

8.1.3 Notification Letters

9.0 REFERENCES

9.1 RWAP-P1, *Radioactive Waste Acceptance Program, Implementation Plan*

9.2 *Mixed Waste Disposal Unit, Waste Analysis Plan*

9.3 RWAP-02, *Conduct of Waste Generator Facility Evaluations*

9.4 RWAP-05, *Records Management*

9.5 RWAP-07, *Corrective Action Requests*

9.5 RWAP-09, *Waste Verification Process*

10.0 EXHIBITS

10.1 Exhibit 1 - Document Review Summary Form

10.2 Exhibit 2 - Performance Assessment Review Process

10.3 Exhibit 3 - Waste Stream Verification Frequency Evaluation and Screening Methods

10.4 Exhibit 3-1 Generator Evaluation Form

10.4 Exhibit 4 - Guidance for Documenting Review Comments

10.5 Exhibit 5 - Guidelines for Determining Application of Limited Reviews

Exhibit 1
Document Review Summary

General Information:

Generator Facility: _____

Document Title: _____

Document No./Rev.: _____

Summary:

Recommendation:

Recommendation Approved:

NNSA/NFO Task Manager	Signature	Organization	Date
RWAP Manager	Signature	Organization	Date
RWAP Review Lead	Signature	Organization	Date

Exhibit 2

Performance Assessment Review Process

1.0 PERFORMANCE ASSESSMENT REVIEW PROCESS

The Performance Assessment (PA) WARP member will review all new or revised profiles for potential impacts on the performance assessment and document the results of all reviews.

1.1 Review WP

1.1.2 Review the WP and document any problems or discrepancies in comments submitted to the Review Lead.

1.2 Identify, Document, and Track Proposed Actions Entering the Unreviewed Disposal Question (UDQ) Process

1.2.1 Review the WP to determine if acceptance of the waste stream would cause any changes that constitute a potential UDQ. Evaluate the proposed action against the four UDQ criteria. If any of the UDQ criteria are true, then the proposed action is a potential UDQ and shall enter the UDQ process. Acceptance of a new or revised WP shall be considered a potential UDQ.

1.2.2 Record the conclusions of the comparisons of the proposed action with each of the UDQ criteria.

1.2.3 Describe each proposed action that enters the UDQ process.

1.2.4 Assign each proposed action entering the UDQ process a unique tracking number.

1.3 Exclude Proposed Actions Involving Minor Inventory Changes

1.3.1 If the proposed action involves a radionuclide inventory change, calculate the sum of fractions for the waste stream. Record the sum of fractions.

1.3.2 Review the categorical exclusions. Exclude the proposed action from the UDQ process if it meets any of the categorical exclusions.

1.3.3 Record the result of the screening. Proceed to section 1.6 if the proposed action is excluded from the UDQ process.

1.4 Perform Inventory Screening If Proposed Action Involves an Inventory Change

1.4.1 The PA WARP reviewer may skip the inventory screening and perform a UDQ determination if (1) based on professional judgment the proposed action is unlikely

to pass level 1 screening or (2) level I screening will not address the proposed action.

1.4.2. Calculate the available capacity sum of fractions.

1.4.3 Record the results of the inventory screening.

1.4.4 If the available capacity sum of fractions is less than 0.01, the proposed action can be screened out of the UDQ process. Record the results of the screening and proceed to section 1.6.

1.4.5 If the available capacity sum of fractions exceeds 0.01, proceed to section 1.5 and perform a UDQ determination.

1.5 Perform a UDQ Determination

1.5.1 If the proposed action does not meet any of the UDQ criteria, it shall be considered a negative UDQ and removed from the UDQ process. Record the basis of the UDQ determination and proceed to section 1.6.

1.5.2 If the proposed action meets any of the UDQ criteria and has not been removed from the UDQ process by exclusion or screening, it shall be considered a positive UDQ.

1.5.3 Perform a special analysis on all positive UDQs to determine the impact of the proposed action on the performance objectives.

1.5.4 Document the special analyses as an engineering calculation.

1.5.5 Determine if there is a reasonable expectation of compliance with the performance objectives. Note any conditions required to ensure compliance. Report the results of the special analysis to NNSA/NFO.

1.6 Document the Results of the Performance Assessment Review

1.6.1 Complete and sign the UDQ Form and submit to the WARP Review Lead for inclusion in the waste stream approval package.

1.6.2 Recommend approval of the proposed action if all proposed actions were removed from the UDQ process by categorical exclusion, inventory screening, or a negative UDQ determination.

1.6.3 Recommend approval of the proposed action if the proposed action is a positive UDQ and the special analysis demonstrates a reasonable expectation of compliance without conditions.

1.6.3 Recommend approval with conditions of the proposed action if the proposed action is a positive UDQ and the special analysis demonstrates a reasonable expectation of compliance with changes to operating conditions. Note the conditions required for compliance.

1.6.4 If a positive UDQ cannot be show by special analysis to meet all performance objectives, recommend rejection of the waste stream until the proposed action is changed.

2.0 Definitions

2.1 Available Capacity: The radionuclide inventory that can be added to the disposal site without causing any performance object to be exceeded. The available capacity is calculated using the PA model.

2.2 Categorical Exclusion: Exclusion criteria that assure that a proposed action does not constitute a UDQ. Exclusion criteria describe minor changes not expected to impact PA results. Proposed actions meeting the categorical exclusion condition are screened out of the UDQ process using simple deterministic calculations. Categorical exclusions are:

1 - WP representative concentration sum of fractions less than 1.0.

2 - WP representative concentration sum of fractions less than 10 and annual waste volume less than 100 m^3.

3 - Long-lived nuclide without action level, annual activity disposed less than 3.7E7 Bq (1 mCi).

2.3 Level 1 UDQ Screening: Quantitative screening of inventory changes that cannot be excluded. Screening is performed by calculating the available capacity sum of fractions. Level I UDQ Screening identifies minor inventory changes and excludes them from NNSA/NFO review.

2.4 Proposed Action: A new or changed activity, procedure, or test that may affect the waste disposal authorization basis.

2.5 Special Analysis: Documented engineering calculations performed to quantitatively assess the impact of a positive UDQ on the performance assessment. Special analyses involve potentially significant changes to conceptual model, major assumptions, facility design, or waste inventory that may require review and approval by DOE/HQ. Special analyses are submitted to NNSA/NFO for evaluation. At NNSA/NFO's discretion, special analyses may be submitted to DOE/HQ for review and approval.

2.6 Un-Reviewed Disposal Question (UDQ): A proposed action potentially impacting the waste disposal authorization basis that may require DOE/HQ review and approval. A proposed action is a potential UDQ if any of the conditions below are true.

(1) The proposed action will change radionuclide inventory.

(2) The proposed action requires a change in facility design or closure plans; or the imposition of operational constraints or conditions.

(3) The proposed action will alter the likelihood of a feature, event, or process; or significantly change a parameter value.

(4) The proposed action requires a change in waste acceptance criteria, the performance assessment, or disposal authorization statement.

UNREVIEWED DISPOSAL QUESTIONS (UDQ) FORM

UDQ Number: _____ **Date Opened:** _____

Waste stream ID: _____ **Date resolved:** _____

Waste {profile Revision Date: _____ **Status:** _____

UDQ Description:

Proposed Action:

Acceptance of waste stream for disposal.

Does the proposed action involve a change in radionuclide inventory? _____

Does the proposed action require a change in facility design of closure plans; or require imposition of operational constraints or conditions? _____

Does the proposed action alter the likelihood of a feature, event, or process: or significantly change a Parameter value? _____

Does the proposed action require a change in waste acceptance criteria, the performance assessment, or the disposal authorization statement? _____

UDQ Resolution

Describe Basis of Resolution:

Cat – X

Categorical Exclusion: 1. Profile Representative Concentration SOF less than 1.0

Calculation Number: _____ WCL SOF: _____

Available Capacity SOF: _____

Describe Condition for Approval:

Recommendation: _____

_____ _____

Performance Assessment Review Date

Exhibit 3
Waste Stream Verification Frequency Evaluation and Screening Methods

1.0 Screening Method Determination

During WP reviews, the Review Lead (RL)/reviewers will utilize this appendix as guidance in establishing and recommending verification frequencies and screening methods to the Waste Acceptance Review Panel (WARP). Screening methods for waste streams will be based on the following:

1.1 Physical Screening

1.1.1 The RL/reviewers determine whether physical screening by either Real-Time Radiography (RTR) or visual examination can be performed on the waste stream. If the waste cannot be physically screened (i.e., non-verifiable), the RL/reviewers can perform a more thorough documentation review in lieu of physical screening.

The following wastes are considered non-verifiable by RTR:

- Waste that is shielded such that it cannot be adequately viewed by RTR
- Classified
- Remote-handled waste
- Waste packages that exceed 11,000 pounds for boxes or 1,200 pounds per drum.
- Waste packages that are too large to be scanned (maximum container dimensions must be less than or equal to 72” wide x 48” high x 144” long)
- Waste that cannot be physically screened due to ALARA or health and safety concerns (maximum dose rate equal to or less than 100 mRem at 30 centimeters)

The following wastes are considered non-verifiable by visual examination:

- Waste that cannot be visually examined due to ALARA or health and safety concerns
- Waste that cannot be visually examined due to the lack of a facility to perform visual examination at the generator facility

1.1.2 If the waste is considered non-verifiable, go to section 3.0.

1.2 Chemical Screening

1.2.1 Chemical screening techniques that may be used are described in RWAP-09, *Waste Verification Process*, and include pH Screen, Peroxide Screen, Oxidizer Screen, Water Reactivity Screen, Cyanide Screen, Sulfide Screen, and Paint Filter Test.

1.2.2 The RL/reviewers determine whether chemical screening can be performed on the waste stream.

The following wastes are exempt from chemical screening:

- Waste that have been subject to a technology based Land Disposal Restriction standard
- Hazardous debris
- Chemical containing equipment removed from service (i.e., ballasts, batteries, etc.)
- Mixed waste containing regulated asbestos
- Waste from the cleanup of spills or a release of a single substance or known material (e.g. material for which an MSDS can be provided)
- Confirmed non-infectious waste generated from laboratory tissue preparation, slide staining, or fixing processes
- Wastes containing Beryllium that may be released as an airborne particulate

2.0 Verification Frequency

2.1 The following information should be considered by RL/reviewers when determining verification frequencies:

- Waste Matrix (debris, soil, solidified, encapsulated)
- Homogeneity of the waste stream
- Place of treatment (treated at a permitted Treatment Storage or Disposal Facility (TSDF) or treated by the generator in-house)
- Waste streams that require segregation from other waste streams (i.e., that have different waste codes or treatment/disposal pathways) depending on the specific waste generating process and detail of segregation procedures used by the generator.
- Recent verification failure in similar waste streams due to incorrect segregation.
- Past performance of generator
- Past performance of the TSDF treating the waste

2.2 RL/reviewers should determine verification frequencies and forward proposed verification frequencies and screening method(s) to the RL. The RL compiles the recommendations from reviewers, determines verification frequency and screening method(s) based on reviewer's recommendations.

2.3 The RL will document this decision in a waste stream recommendation.

2.4 The RL presents the verification recommendations for discussion at the WARP meeting.

3.0 Documentation Reviews for Non-verifiable Waste

When a waste stream is determined to be non-verifiable in accordance with Section 1.1.2, the RL will perform the following:

3.1 The RL works with the generator to obtain any relevant documentation relating to the waste stream. This may include procedures used to segregate and package the waste, and the process knowledge documentation and sampling and analysis data used to characterize the waste.

3.2 The RL evaluates the documentation to determine whether there is adequate data to support acceptance of the waste without performing verification. Adequate data exists when the RL believes that the combination of characterization data and the segregation/packaging procedures provide reasonable assurance that the waste will be properly designated and meet the NNSSWAC.

3.3 The RL/reviewers evaluate data provided by the generator and determine whether the available data is adequate. If the RL/reviewers determine that the documentation is not adequate, the generator is requested to provide additional data in the area(s) of concern.

3.4 If adequate documentation does not exist, the RL will not recommend the waste profile for approval or process the Pre-Treatment Notification Form for Mixed Waste.

3.4.1 NNSA/NFO communicates to the generator that the Waste Profile is not approved or that the Pre-Treatment Notification Form cannot be processed and provides the justification for the decision.

3.4.2 The RL/reviewers may recommend additional actions to ensure waste stream compliance with the waste acceptance criteria (e.g., a surveillance of the waste stream and generating process; a surveillance of the waste certification program) that must be taken prior to approving the Waste Profile.

3.4.3 If the RL/reviewers recommend that a surveillance of the waste stream or waste certification program should be performed, the surveillance is completed in accordance with RWAP-02, *Conduct of Waste Generator Facility Evaluations*.

3.4.4 The RL documents the reviewer's decision(s) in the waste stream recommendation.

4.0 Monthly Performance Evaluation

A monthly performance evaluation is used to monitor a generator's performance. The RL/reviewers evaluate the specific waste streams and types of conformance problems identified from verification activities during the previous month. Based on this evaluation, the RL/reviewers may adjust verification frequencies and screening method(s) for the generator's waste stream(s).

Receipt conformance issues are documented in the RWAP Shipment Discrepancy Log. These conformance issues are reviewed on a quarterly basis. Verification results are documented by the

Verification Representative (VR) on the Container Verification Record (CVR) and Chemical Screening Record (CSR) in accordance with RWAP-09, *Waste Verification Process*. The verification activity results are reviewed by the RL and used to complete the Generator Evaluation Form (Exhibit A3-1).

4.1 RWAP Manager Initiates Evaluations

As soon as practicable at the beginning of the month, the RWAP Manager will designate a RL to perform the monthly waste generator evaluations.

4.2 The RL completes the generator evaluation by using the LWIS database to identify generators who were active for the previous month.

4.2.1 For each generator, the RL reviews the Shipment Discrepancy Log, LWIS database information, CVR(s), CSR(s), results of facility evaluations or site visits to the generator site or treatment facility, and any other pertinent information available on the generator or waste stream.

4.2.2 The RL documents the review, based on the generators' waste stream(s), on the Generator Evaluation Form (Exhibit 3-1). The form is then forwarded to the RL on record for the current waste profile revision or Pre-Treatment Notification for review and signature.

4.2.3 The RL presents the results for discussion at the next scheduled WARP Meeting.

4.3 Any changes to verification frequencies or methods will be documented in the waste stream recommendation. Upon WARP approval of the waste stream recommendation, a MFR and a draft approval letter are initiated in accordance with RWAP-03 (current revision).

Exhibit 3-1
Generator Evaluation Form

1. Generator:	
2. Profile No., Rev. & Date:	
3. Verification Frequency (%)	*Physical: RTR%:_____Visual Inspection%:_____Chemical:_____% of Physical*
4. Review Lead Name:	
5. Review Lead Signature:	
6. Date of Review:	

Issue	Yes	No	***Details (attach additional pages if necessary)***
Receipt or Shipment Discrepancies	☐	☐	
Container Verification Record (CVR) Issues	☐	☐	
Chemical Screening Record (CSR) Issues	☐	☐	
Facility Evaluation Issues	☐	☐	
Other Issues	☐	☐	
Recommendations			
Recommend Site Visit or Surveillance	☐	☐	
Increase Verification Frequency	☐	☐	*Recommended Percentage:*
Decrease Verification Frequency	☐	☐	*Recommended Percentage:*
Adjusted Verification Frequency *(If different from Block 3 above, an amended Waste Stream Recommendation Form is required)*			*Physical: RTR %: Physical Screening %:* *Chemical: Chemical Screening % of Physical:*

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Exhibit 4
Guidance for Documenting Review Comments

1. List title of the document being reviewed.

2. Document "General Comments" first. General comments have no specific page number or section reference.

3. Document "Specific Comments" by page number, section number, section title, and/or paragraph number or other means of identification. The comment should state the concern and reference a requirement, if applicable. A recommendation or suggestion of an acceptable resolution may be provided by the reviewer, if warranted.

Comment Examples for WPs:

1. Section D.4: For all analysis where sample means are available, confidence intervals will be calculated. Please provide the confidence intervals.

Comment Examples for other documents:

1. Section 10.1.2 states, "Surveillance of inspection findings will be documented and kept in the Waste Certification fireproof files for a minimum of one year." The NNSSWAC states, "The generator *shall* maintain records for time periods . . . not less than 3 years." Please clarify.

Exhibit 5
Guidelines for Determining Application of Limited Reviews

RM and/or RL will use the guidelines provided below in determining if a Waste Profile (WP) revision can undergo a limited review and approval. Table 1 represents a section breakdown of the WP and depicts typical revision scenarios / examples that would allow a limited review or prompt a to-be-determined (TBD) evaluation by the RM and/or RL. If necessary, they may consult with a Subject Matter Expert (SME) in making the determination and/or have the SME to participate in the limited review.

Limited Review Conditions

WP Section	Description	Limited Review	Discussion / Condition * Considered a Non-technical change
A.1 - 3	Facility Name	Yes	* Not a common occurrence; therefore, address changes are unlikely and have no impact to waste stream properties.
A.4	Technical Contact	Yes	* In most cases, this information can be updated via submittal of WP.
A.5	DOE Contact	Yes	* Change in DOE POC can be addressed in WP transmittal letter.
A.6	WCO	Yes	* Change in WCO would also be addressed in a notification letter sent to NNSA/NFO. Would not impact waste properties or characterization.
A.7	EPA ID Number	Yes	* Not a common occurrence. Would not impact waste properties or characterization.
A.8	Processing Location Change	No	Changes in this section would impact the treatment process / characterization.
B.1	Waste stream name	No	Not a common occurrence, but a change here would warrant a full review.
B.2.a	Waste stream number	Yes	* Typically not changed; once approved no need to change it.
B.2.b	Revision No. and date	TBD	Determine based on WP section(s) revised and technical impact of the change(s).
B.3	Generating Process Descript.	TBD	Changes could be non-technical or technical.
B.3.a	Data that has changed	TBD	Changes could be non-technical or technical.
B.4	WM Services	Yes	* Will only be disposal for NNSS.
B.5	Waste Category	No	Most likely a change in characterization data (non-technical or technical).
B.6	Estimated Volume	Yes	* If there are no characterization changes or other programmatic changes.
B.7	Frequency of shipments	Yes	* If there are no characterization changes or other programmatic changes.
C.1 - 9	RCRA Characterization / Composition	TBD	Changes most likely could not be approved via a limited review. However, changes could be non-technical (e.g., addition of a non-critical component - 10% rubber to 50% rubber) and could be accepted via a limited review.
D.1 - 5	Radiological Characterization	TBD	Changes most likely could not be approved via a limited review. However, changes could be non-technical (e.g., addition of a non-critical component - 10% rubber to 50% rubber) and could be accepted via a limited review.
E.1 - 5	Packaging used	TBD	Must be evaluated. Waste operations should be notified and/or included in review.
E.6	Containers returned to generator	TBD	Must be evaluated. Waste operations should be notified and/or included in review.
E.7	Special Handling	No	This could vary but often applies to ALARA concerns and requires reviews external to RWAP.
F.1	Comments	TBD	Must be evaluated on a case by case basis.
F.2	Deviation Requests	TBD	Must be evaluated on a case by case basis.
F.3	Attachments	TBD	Must be evaluated.
G	Signatures	N/A	See A4 and A6