



**NATIONAL NUCLEAR SECURITY ADMINISTRATION (NNSA)
NEVADA FIELD OFFICE**

RADIOACTIVE WASTE ACCEPTANCE PROGRAM

IMPLEMENTATION PLAN

RWAP-P1

The signatories below have reviewed and deemed the information within this implementation plan to be correct and will satisfy applicable regulations and requirements. This document is not intended to replace any established policy, procedure, or requirement.

Approved by: _____

_____ Date

Reviewed by: _____

_____ Date

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ABBREVIATIONS and ACRONYMS

AIP	Agreement-in-Principle (NNSA/NFO and NDEP Oversight Agreement)
AMEM	Assistant Manager for Environmental Management
CAR	Corrective Action Request
NNSA/NFO	National Nuclear Security Administration Nevada Field Office
LLW	Low-Level Radioactive Waste
M&O	Management and Operating Contractor for NNSS
M&TE	Measuring and Test Equipment
MW	Mixed Waste
NDEP	State of Nevada, Division of Environmental Protection
NNSS	Nevada Nuclear Security Site
NNSSWAC	Nevada Nuclear Security Site Waste Acceptance Criteria
QA	Quality Assurance
RM	RWAP Manager
RWAP	Radioactive Waste Acceptance Program
NM	NNSA/NFO RWAP Manager
WARP	Waste Acceptance Review Panel
EMO	Environmental Management Operations

1.0 PURPOSE

The Radioactive Waste Acceptance Program (RWAP) Implementation Plan ensures that requirements governing disposal of DOE hazardous and non-hazardous non-radioactive classified waste, DOE low-level radioactive waste (LLW), DOE mixed low-level waste (MLLW), and U.S. Department of Defense (DOD) classified waste for permanent disposal as mandated by the National Nuclear Security Administration Nevada Field Office (NNSA/NFO) and other regulatory agencies are fully satisfied.

U.S. Department of Energy (DOE) Order 435.1, *Radioactive Waste Management*; DOE Order 414.1, *Quality Assurance*; and Title 10 Code of Federal Regulations (CFR), Subpart A, Section 830.122, *Quality Assurance Criteria*, identify requirements applicable to NNSA/NFO RWAP activities. These documents provide guidance for development, approval, and maintenance of the NNSS Waste Acceptance Criteria (NNSSWAC) and RWAP programs and processes essential to assure compliance.

Specific roles and responsibilities of NNSA/NFO, NDEP, and RWAP organizations and task-specific processes necessary for accepting waste for disposal at the NNSS are described within this plan.

2.0 ORGANIZATION

2.1 Roles and Responsibilities

The NNSA/NFO RWAP is a function of the Environmental Management Operations (EMO) under the EMO, Manager. The RWAP reporting structure is depicted in Appendix A and identifies the functional organizations required to support program implementation.

2.1.1 Assistant Manager for Environmental Management (AMEM)

The NNSA/NFO AMEM responsibilities under the RWAP program include, but are not limited to, the following:

- Implementation of the RWAP program to ensure compliance with applicable DOE Order(s) and or DOE Manual(s).

2.1.2 EMO Manager

The NNSA/NFO EMO Manager reports to the AMEM and is responsible for the following:

- Waste management operations of Areas 3 and 5 at the NNSS Radioactive Waste Management Complex;
- Ensuring compliance with the applicable DOE Orders and federal regulations;
- Development and management of environmental protection, safety, health, and quality assurance programs related to NNSS radioactive waste management;
- Development, implementation, and maintenance of the NNSSWAC;
- Approval of Waste Generator programs authorizing disposal of waste at the NNSS;
- Granting requests from waste generators to deviate from NNSSWAC requirements; and
- Suspension of waste generator program or waste shipments to the NNSS when necessary.

2.1.3 Low-Level Waste Activity Lead

The Low-Level Waste Activity Lead reports to the EMO Manager and is responsible for:

- Management of radioactive waste disposal operations at NNSA/NFO;
- Tracking waste volume projections; and
- Monitoring of waste streams to ensure operational compatibility.

2.1.4 RWAP NNSA/NFO Manager

The NNSA/NFO RWAP Manager (NM) reports to the EMO Manager. Responsibilities include, but are not limited to, the following:

- Manages, develops, and approves RWAP processes and instructions;
- Interface with waste generators regarding RWAP program criteria and activities;
- Schedule and conduct facility evaluations/document reviews of waste generator programs;
- Initiate recommendations to the EMO Manager regarding the status of generator programs;
- Maintain RWAP quality records as defined by RWAP instructions; and
- Provides signature concurrence with Corrective Action Request (CAR) closure and transmits appropriate notification to the responsible organization.
- Monitoring of the RWAP program to ensure waste generator compliance with the NNSSWAC; DOE Orders, and federal regulations;

2.1.5 RWAP Manager

The RWAP Manager (RM) reports to the NM and has primary responsibility for coordinating and managing daily activities of RWAP. Responsibilities include, but are not limited to, the following:

- Primary interface with the NNSA/NFO NM for RWAP issues;
- Development of RWAP program documents;
- Develop and maintain annual facility evaluation (FE) schedule;
- Primary point of contact with waste generator/contractor personnel;
- Coordinate support activities with NNSA/NFO, the Management and Operating Contractor for NNSS, and other support contractors in performing RWAP tasks;
- Training and qualification of RWAP personnel; and
- Coordinate Waste Acceptance Review Panel (WARP) activities

2.1.6 RWAP Support Personnel

RWAP core support personnel are assembled from NNSA/NFO and NNSS contractors and are responsible for daily implementation of RWAP programs to ensure compliance with NNSSWAC criteria. Additional personnel are selected as necessary dependent upon the program initiatives, tasks to be performed, and technical expertise required.

2.1.7 Waste Acceptance Review Panel

The WARP is a panel of selected subject matter experts primarily responsible for coordinating

reviews of generator waste profiles and supporting characterization data. The WARP is a technical resource to RWAP that provides guidance on waste disposal issues and recommendations to the NM concerning their acceptance for disposal at the NNSS. The RM is responsible for directing WARP activities, leading review meetings, and assigning related support tasks to ensure that complete and thorough reviews are performed and documented.

2.1.8 Nevada State Division of Environmental Protection

NDEP participates in the NNSS LLW program. In support of this, NDEP is copied on applicable RWAP correspondence and records associated with the evaluation and approval of radioactive waste generator programs. NDEP personnel may elect to observe the conduct of NNSA/NFO RWAP facility evaluations. The level of participation is mutually established by the NM and NDEP based upon the type of facility evaluation and NDEP area(s) of interest.

NDEP personnel also participate in WARP activities and review of waste profiles. NDEP comments are documented, resolved, included in the final record package, and maintained on file in accordance with RWAP procedures.

2.1.9 Generators of Waste

Approved waste generators are responsible for the development, implementation, and maintenance of a Waste Certification Program or equivalent that demonstrates compliance with the NNSSWAC.

3.0 QUALITY ASSURANCE (QA)

This Plan outlines the requirements, which describe the process for establishing, implementing, and documenting a quality program within RWAP that complies with the requirements of DOE Order 414.1, *Quality Assurance*. The NM/RM is responsible for implementation of this Plan.

The NNSA/NFO RWAP QA program philosophy is that each individual is responsible for the quality of their own work. RWAP will adhere to NNSA/NFO policies, plans, procedures, and other requirements applicable to the acceptance and disposal of waste. Implementation is provided through appropriate training and task specific instructions.

3.1 Quality Assurance Program

RWAP QA requirements are based upon DOE Order 414.1, *Quality Management System*, which also satisfies Title 10 CFR Subpart A, Section 830.122, *Quality Assurance Criteria*. This section identifies the quality assurance elements applicable to NNSA/NFO RWAP activities and defines the internal controls and processes necessary to ensure compliance.

3.2 Personnel Training and Qualification

The authorities and responsibilities of RWAP personnel shall be established and delineated in RWAP instructions and documents. Personnel shall be trained and qualified to ensure that they are capable of performing assigned work. RWAP personnel training requirements shall be established to ensure that required job proficiency is achieved and maintained.

Specific requirements for qualification of RWAP personnel are described in RWAP instruction RWAP-04, *Training and Qualification of Personnel*. Training records shall be maintained by the NM or contractor personnel.

3.3 Quality Improvement

Quality improvement is based upon the premise that all work can be planned, performed, measured, and improved. The NM and RM will promote an environment for which open communication and process improvement is continuous and encouraged as an integral part of the RWAP program. Process performance is continuously evaluated to identify areas or actions that can be taken to improve program efficiency and quality of work. This will be accomplished through the performance of periodic management assessments.

3.3.1 Control of Nonconforming Items

It is the responsibility of all RWAP personnel to identify and report conditions adverse to quality and those that violate specified requirements. A process shall be established to describe how nonconforming items or activities are identified, controlled, and corrected. RWAP instruction RWAP-07, *Corrective Action Request*, describes how nonconforming conditions are identified and controlled.

3.3.2 Corrective Action

The process requirements for identifying deficient conditions, root cause, corrective action, and action to preclude recurrence shall be clearly documented and the results reported to the appropriate levels of management. Deficiencies shall be periodically trended and evaluated to identify potential processes needing improvement. The process for identifying conditions adverse to quality is described in RWAP instruction RWAP-07, *Corrective Action Request*. This instruction is applicable for all internal and external deficiencies discovered while performing RWAP activities.

3.4 Documents and Records

3.4.1 Document Control

The document control program establishes the requirements for controlling RWAP documents that specify and/or direct performance of quality effecting activities. RWAP documents that establish policy, define requirements, and/or control the conduct of a specified work activity to satisfy a requirement shall be controlled. A process to control RWAP documents shall be established to describe how they are prepared, reviewed, approved, identified, distributed, and maintained. RWAP document control activities are described in RWAP instruction RWAP-08, *Document Control*.

3.4.2 Records Management

A records management system shall be established to ensure that RWAP records are maintained for their expected future value. The record system shall include provisions for retention, protection from damage or loss during storage, correction, and ensure retrievability. The record

management system shall have a schedule for retention and disposition of records in accordance with the applicable requirements of DOE Order 200.1A, *Information Technology Management*.

NNSA/NFO is the designated record holder for original RWAP records with the exception of some contractor training records and/or in-process records. RWAP records shall be submitted to the NM for entry into the NNSA/NFO records management system. RWAP instructions shall specify how records are identified, prepared, reviewed, approved, and included in the records management process. The requirements for records management activities specific to RWAP are detailed in instruction RWAP-05, *Records Management*.

3.5 Work Processes

The NM shall oversee the planning and development of RWAP work processes. The NM will ensure that activities involved in performing defined tasks are established and objectives accomplished through the approval of the work processes. Work shall be performed to prescribed standards, procedures, or instructions commensurate with the complexity and importance of the work being performed.

3.5.1 Instructions, Procedures, and Drawings

RWAP activities shall be performed to established technical standards and administrative controls necessary to ensure consistency in performing prescribed work. Work is performed under controlled conditions using approved instructions, checklists, and other appropriate documents. These documents shall include or reference applicable codes, standards, and acceptance criteria to ensure that the activity is satisfactorily accomplished. The authority, responsibility, and interfaces, both internal and external, regarding work processes shall be clearly identified. RWAP instruction RWAP-01, *Preparation of Radioactive Waste Acceptance Program Instructions*, describes how RWAP instructions are to be prepared, reviewed, revised, and approved.

3.5.2 Facility Evaluations

The primary responsibility of the NNSA/NFO RWAP is to conduct FEs (i.e., audits, surveillances, or program reviews) of waste generator programs to evaluate their compliance and provide recommendations for shipment and disposal of waste to the NNS.

The RWAP shall establish a comprehensive system for planning and performing scheduled FEs of waste generators. The primary goal of the program is to verify waste generator compliance with the requirements of the NNSSWAC, evaluate and measure the adequacy of processes and their implementation, and identify conditions adverse to quality.

FEs will be scheduled and performed in accordance with approved RWAP instructions. RWAP personnel performing FEs shall be independent of the areas being assessed and technically qualified in accordance with specified training requirements. The results of FEs shall be documented and approved by the NM. The process for conducting FEs is described in RWAP instruction RWAP-02, *Conduct of Waste Generator Facility Evaluations*.

3.5.3 Identification and Control of Items

RWAP is limited in the use of specific materials, parts, and components that would require a formal process for identification and control of items. The items necessary for RWAP program management and implementation are the specified documents and records submitted by waste generators to satisfy the NNSSWAC requirements. The identification, control, and maintenance of these documents are described in Section 3.4, Documents and Records.

3.5.4 Handling, Storing, and Shipping

RWAP does not engage in the handling, storage, packaging, shipping, or preservation of items. The products of the RWAP program are the quality records generated as a result of implementing internal programs and processes. The handling and retention of records are addressed in Section 3.4, Documents and Records.

3.6 Design Control

NNSA/NFO RWAP is not involved in the development and/or approval of designs for items, facilities, or special processes; therefore, a formal internal RWAP design process is not required.

3.7 Procurement

Items and/or services are obtained in accordance with the procurement practices and requirements mandated by NNSA/NFO and/or supporting management and operating (M&O) organization(s). The NNSA/NFO Assistant Manager for Business & Financial Services is responsible for establishing the required processes and/or procedures necessary to obtain external services. Prospective contractors or subcontractors are evaluated and selected on the basis of specified criteria. The selected contractors or subcontractors who provide services in support of the RWAP program are periodically evaluated by NNSA/NFO to ensure that they continue to provide acceptable services.

3.8 Inspection and Acceptance Testing

3.8.1 Inspection and Acceptance Testing

RWAP inspection and testing activities are limited to verification of waste and performed at the NNSS and/or waste generator facility. Methods of inspection and test involve Real-Time Radiography, physical verification, and chemical screening depending on the waste type. The process for conducting RWAP inspection and test activities are described in instruction RWAP-09, *Waste Verification Process*.

3.8.2 Control of Measuring and Test Equipment (M&TE)

RWAP personnel are not required to use calibrated tools, gauges, instruments, or other measuring and test equipment in the performance of their normal duties; therefore, a formal M&TE calibration program within RWAP is not required.

3.9 Management Assessment

The RM is responsible for scheduling and conducting periodic management assessments to evaluate program implementation, performance, and promote process improvement.

Management assessments may be performed through direct observation of work, interviews of personnel, review of documentation, a documented evaluation of a specific process, or a combination of any of these methods. The results of management assessments will be documented and used as performance indicators to identify improvement opportunities within the program.

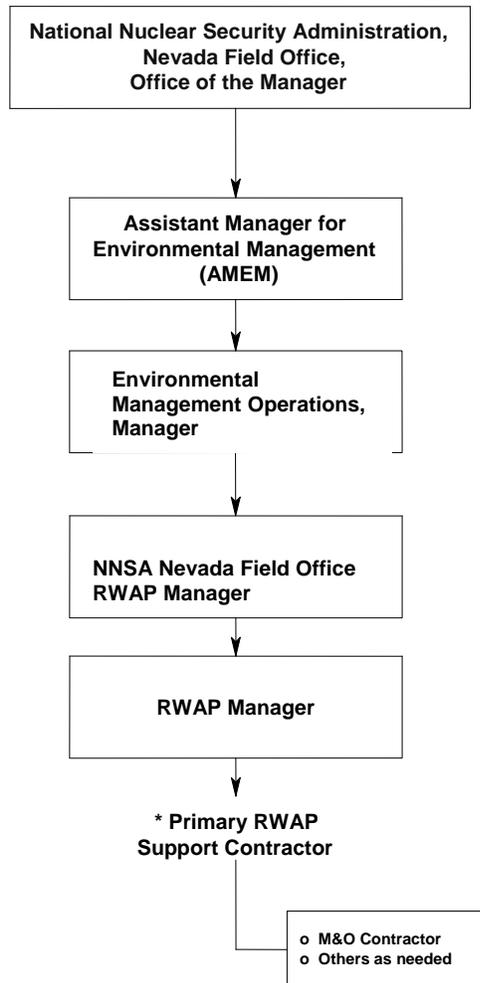
3.10 Independent Assessment

Periodic internal assessment of NNSA/NFO RWAP will be conducted to ensure the adequacy of and compliance with the established programmatic and procedural requirements. It is the responsibility of the RM to ensure that assessments are conducted. Personnel performing assessments will have the technical knowledge to accurately observe and evaluate the activities and will not have direct responsibility for the areas being assessed. The assessments may include such methods as management assessments, peer reviews, technical reviews, audits, surveillances, or a combination thereof; however, the result must be documented and approved. The type and frequency of assessments is based on the complexity and importance of the activity or process and consider the following:

- Evaluation of programmatic compliance with NNSSWAC criteria and other governing codes and standards,
- Evaluation of work performance and process effectiveness,
- Identification of abnormal performance and potential problems,
- Identification of opportunities for improvement, and
- Verification of satisfactory resolution of reported problems.

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Appendix A
RWAP Functional Reporting Chart



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