Maine Yankee

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November 20, 2008
MN-08-011
RA-08-046

UNITED STATES NUCLEAR REGULATORY COMMISSION
Attention: Document Control Desk
Washington, D. C. 20555-0001

Reference: License No. DPR-36 (Docket No. 50-309, 72-030 and 71-0465)

Subject: Maine Yankee Independent Spent Fuel Storage Installation Quality Assurance Program – Revisions 31 and 32

Gentlemen:

Enclosed is Revisions 31 and 32 of the Maine Yankee Independent Spent Fuel Storage Installation Quality Assurance Program.

Enclosures 1 and 2 contain Revisions 31 and 32 changes, respectively. The changes contained in these revisions did not reduce the commitments in the program previously accepted by the NRC. Therefore, these changes have been implemented and are submitted to the NRC in accordance with 10 CFR 50.54(a)(3). Enclosure 3 contains a summary table which identifies all of the changes made in the revisions and provides a reason for the change.

If you have any questions, please contact me at (207)-882-1312, or at JConnell@3yankees.com.

Sincerely,

James Connell
ISFSI Manager

Attachments

C: Mr. James R. Hall, Project Manager, NRC Headquarters
Mr. Samuel Collins, Regional Administrator, NRC Region I
Mr. Raymond Lorson, Decommissioning Branch Chief, NRC Region I
Mr. Mark Roberts, NRC Region I
Mr. Pat Dostie, Maine State Nuclear Safety Inspector
Mr. Gerald C. Poulin, Chairman and President, Maine Yankee
Mr. Wayne Norton, Vice President and CNO, Maine Yankee

NMSS01
FSME

ENCLOSURE 1
Maine Yankee
Quality Assurance Program Revision 31

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Maine Yankee Atomic Power Company

Quality Assurance Program

For

Maine Yankee ISFSI

Revision 31

QUALITY ASSURANCE PROGRAM FOR MAINE YANKEE

PREPARED BY: Joseph Bourassa Date: 10/10/07

Joseph Bourassa

APPROVED BY: Date: 10/11/07

ISFSI QA
Maine Yankee Atomic Power Company

APPROVED BY: Date: 10/15/07

ISFSI Manager
Maine Yankee Atomic Power Company

a. The President reports to the Board of Directors and has overall responsibility for the QAP and operation of the Maine Yankee ISFSI. The President resolves all disputes related to the implementation of the QAP for which resolution is not achieved at the appropriate organizational levels within Maine Yankee.

b. The Chief Nuclear Officer (CNO) reports to the President and is responsible for the oversight of the implementation of the QAP.

c. The individuals fulfilling the following management functions report to the CNO. These individuals may report through an additional layer of management, but shall maintain sufficient authority and organizational freedom to implement the assigned responsibilities. These individuals may fulfill more than one function described below unless prevented by the need to maintain independence as required elsewhere in the QAP.

1. Vice President/ISFSI Manager (ISFSI Manager) – Reports to the CNO and is responsible for the direction and administration of ISFSI Operations, Site Training, Security and Emergency Planning. The Independent Review Function (ISR), described in Section D, reports to the ISFSI Manager.

2. ISFSI Radiation Protection Manager – Reports to the ISFSI Manager and is responsible for the Radiation Protection Program.

3. ISFSI QA – Reports to the CNO with a direct line of communication to the President and is responsible for the audit/survey and surveillance functions described in the QAP. The ISFSI QA is designated by CNO.

3. Responsibility

a. Maine Yankee has the responsibility for the scope and implementation of an effective quality assurance program.

b. Maine Yankee may delegate all or part of the activities of planning, establishing, and implementing the quality assurance program to others, but retains the responsibility for the program and its effectiveness.

c. The Independent Management Assessments are periodically performed to monitor overall performance and confirm that activities affecting quality comply with the QAP and that the QAP is effectively implemented. This Independent Management Assessment is performed by individual(s) designated by the CNO and/or President, independent of activities assessed and who provide the appropriate level of expertise in the activities assessed. The Independent Management Assessment results are communicated in an understandable form and in a timely fashion to a level of management having the authority to effect corrective action. In addition, these results are reported in a timely fashion to the President and CNO of Maine Yankee.

d. Maine Yankee is responsible for ensuring that the applicable portion(s) of the Quality Assurance Program is properly documented, approved, and implemented (staff is trained,

1. Welding,

2. Heat treating,

3. NDE (Non Destructive Examination),

4. Chemical cleaning, and

5. Unique fabricating or test processes which require in-process controls.

c. Shall be accomplished by qualified personnel, using appropriate equipment, and procedures in accordance with applicable codes, standards, specifications, criteria, and other special requirements.

12. Inspection

a. The program will ensure the performance of inspections of Important to Safety activities in order to verify conformance with documented instructions, procedures and drawings for accomplishing the activity. The inspection program may be implemented by or for the organization performing the activity to be inspected.

b. Provisions to ensure inspection planning is properly accomplished are to be established. Planning activities shall identify the characteristics and activities to be inspected, the inspection techniques, the acceptance criteria, and the organization responsible for performing the inspections.

c. Provisions to identify inspection hold points, beyond which work is not to proceed without the consent of the inspection organization are to be defined.

d. Inspection results are to be documented by the inspector and reviewed by qualified personnel.

e. Unacceptable inspection results shall be evaluated and resolved in accordance with procedures.

f. Inspections are performed by qualified personnel other than those who performed or directly supervised the work being inspected. While performing the inspection activity, inspectors functionally report to ISFSI QA.

13. Document Control

a. The program will control the development, review, approval, issue, use, and revision of documents.

b. The scope of the document control program includes, but is not limited to:

1. Safety Analysis Report(s),

2. NRC License Documents, including Technical Specifications,

50.59 or 10 CFR 72.48;

h. Records of Independent Safety Reviews (ISR) and Independent Management Assessments;

i. Records of reviews performed for changes to the Offsite Dose Calculation Manual (ODCM)

C. AUDIT

1. Methodology

a. A program of planned and periodic audits will ensure that activities affecting quality comply with the QAP and that the QAP is being implemented effectively. Audit frequencies will be implemented as required by the applicable Code of Federal Regulations, Facility License, Final Safety Analysis Report and other commitments to the NRC.

b. Organizations performing audits shall be technically and performance oriented commensurate with the activity being reviewed.

c. Personnel performing audits shall have no direct responsibilities in the area they are assessing.

d. Audits shall be accomplished using instructions, procedures, or other appropriate means that are of a detail commensurate with the activity's complexity and importance to safety.

2. Performance

a. Audit schedules assure that the following areas are audited at the indicated frequencies or more frequently as performance dictates.

1. The conformance of ISFSI operation to provisions contained within the Technical Specifications and applicable license conditions is audited at least once every 24 months. The audit shall include elements such as:

- Training and qualifications of the staff
- Actions taken to correct deficiencies occurring with equipment, structure, systems, or method of operation that affect nuclear safety.
- Performance of activities required by the QAP to meet the criteria of 10 CFR 50, Appendix B, 10 CFR 71, Subpart H and 10 CFR 72, Subpart G.
- Implementation of Programs required by Appendix C.

2. Other activities and documents as requested by the President or CNO.

ENCLOSURE 2
Maine Yankee
Quality Assurance Program Revision 32

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Maine Yankee Atomic Power Company

Quality Assurance Program

For

Maine Yankee ISFSI

Revision 32

QUALITY ASSURANCE PROGRAM FOR MAINE YANKEE

PREPARED BY: Joseph Bourassa Date: 8/20/08

Joseph Bourassa

APPROVED BY: R. M. Mitchell Date: 8/21/2008

ISFSI QA
Maine Yankee Atomic Power Company

APPROVED BY: Date: 8/21/08

ISFSI Manager
Maine Yankee Atomic Power Company

QUALITY ASSURANCE PROGRAM FOR MAINE YANKEE

A. MANAGEMENT

1. Methodology

a. The Quality Assurance Program (QAP) provides a consolidated overview of the quality program controls that govern the operation and maintenance of the Maine Yankee Independent Spent Fuel Storage Installation (ISFSI). The QAP describes the quality assurance organizational structure, functional responsibilities, levels of authority and interfaces.

b. The requirements and commitments contained in the QAP are mandatory and must be implemented, enforced, and adhered to by all individuals and organizations. Employees are encouraged to actively participate in the continued development of the QAP as well as its implementation. Changes should be promptly communicated when identified.

c. The QAP applies to all activities associated with structures, systems, and components (SSCs) which are Important to Safety (10 CFR 72). The QAP also applies to transportation packages licensed by the NRC under 10 CFR 71. Requirements of the QAP are done in a graded approach commensurate with an item or activities importance to safety. This graded approach is responsive to NRC Regulatory Guide 7.10. The applicability of the requirements of the QAP to other items and activities is determined on a case-by-case basis. The QAP satisfies the requirements of 10 CFR 50 Appendix B, 10 CFR 71 Subpart H, and 10 CFR 72 Subpart G.

d. The QAP is implemented through the use of approved procedures (i.e., policies, directives, procedures, manuals, instructions, or other documents) which provide written guidance for the control of Important to Safety items and activities and provides for the development of documentation to demonstrate objective evidence of compliance with stated requirements.

2. Organization

The organizational structure responsible for implementation of the QAP is described below. The specific organization titles for the quality assurance functions described in this QAP are identified in implementing procedures. The authority to accomplish the quality assurance functions described is delegated to the incumbent staff, as necessary, to fulfill the identified responsibility.

b. Records and logs of principal maintenance activities, inspections, repair, and replacement of principal items of equipment related to nuclear safety;

c. All reportable events;

d. Records of surveillance activities, inspections, and calibrations required by the NAC UMS Storage or Transport Certificate of Compliance;

e. Records of tests and experiments;

f. Records of changes made to the procedures required by the NAC UMS Storage or Transport Certificate of Compliance;

g. Record of changes made to programs and procedures required by Appendix C;

h. Records of radioactive shipments; and

i. Records of annual physical inventory of all sealed source material.

2. The following records, except as permitted by the NRC exemption dated 11/21/03, shall be retained for the duration of the facility Operating License:

a. Record and drawing changes reflecting facility design modifications made to systems and equipment described in the current DSAR;

b. Records of irradiated fuel inventory, fuel transfers, and assembly burn up histories;

c. Records of facility radiation and contamination surveys;

d. Records of radiation exposure for all individuals entering radiation control areas;

e. Records of gaseous and liquid radioactive material released to the environs;

f. Records of training and qualification for current members of the facility staff;

g. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10 CFR 50.59 or 10 CFR 72.48;

h. Records of Independent Safety Reviews (ISR) and Independent Management Assessments; and

the NRC Certificate Holder for the NAC-UMS Storage and Transportation Systems for implementation consideration.

2. Review of proposed tests and experiments not described in the DSAR or the NAC-UMS Storage and Transportation Systems SARs.

3. Review of proposed changes or modifications to site or ISFSI systems or equipment that affect nuclear safety.

4. Review of all procedures and programs required by Appendix C and changes thereto that require an evaluation in accordance with 10CFR50.59 or 10CFR72.48.

5. Render determination in writing to the ISFSI Manager if any items considered under 1 through 4, above, as appropriate and as provided for in 10CFR50.59, 10CFR50.90 or 10CFR72.48 as requiring prior NRC approval, a license amendment or requires a significant hazards consideration determination.

APPENDIX A

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IMPORTANT-TO-SAFETY STRUCTURES, SYSTEMS AND COMPONENTS

The pertinent quality assurance requirements of 10CFR50, Appendix B, 10CFR 71, Subpart H and 10 CFR 72, Subpart G will be applied, as a minimum, to all quality activities affecting the Important-to-Safety Structures, Systems and Components (SSCs) associated with spent fuel storage and transportation package(s).

NOTE

The safety classification of systems, structures and components (SSCs) of the Maine Yankee ISFSI Facility may be revised based on engineering evaluations and a revision to the Maine Yankee SAR. These modifications are controlled in accordance with the Design Control process and are not considered a reduction in the commitments to the QAP.

The quality classification of NRC Licensed ISFSI Dry Fuel Storage Components and Transportation Packages may not be revised using the Maine Yankee Design Control process. These modifications must be made by the NRC Certificate Holder. The Certificate Holder is responsible for design and licensing controls for these components under their NRC approved Quality Assurance Program. Maine Yankee utilizes these types of components and packages under the provisions of a NRC General License for Radioactive Material Transportation Packages (10 CFR 71) and Spent Fuel Storage (10 CFR 72).

Items and services associated with Radioactive Material Transport Packages as described in 10 CFR 71 and spent Fuel Storage as described in 10 CFR 72 will also fall under the requirements of the QAP.

Important-to-Safety SSCs associated with spent fuel storage and radioactive material transportation packages are defined below:

IMPORTANT-TO-SAFTY AS DEFINED BY 10 CFR 71 AND 10 CFR 72

A. **Dry Spent Fuel Storage (10 CFR 72)**

SSC	Quality Category	Design/License Responsible
Transportable Storage Canister and Fuel Basket Assembly	A	NAC Intl.
Vertical Concrete Cask	B	NAC Intl.
Transfer Cask and Adapter Plate	B	NAC Intl.
Lifting Yoke	B	NAC Intl.
Damaged Fuel Can	A	NAC Intl.
Reconfigured Fuel Assembly	A	NAC Intl.

IMPORTANT-TO-SAFETY, STRUCTURES, SYSTEMS AND COMPONENTS

B. Transport of Spent Fuel and GTCC Waste (10 CFR 71)

SSC	Quality Category	Design/License Responsible
Transportable Storage Canisters and Fuel Basket Assembly	A	NAC Intl.
Damaged Fuel Can	A	NAC Intl.
Reconfigured Fuel Assembly	A	NAC Intl.
Transportable Storage Canister and Basket Assembly For GTCC Waste Containers	A	NAC Intl.
UMS Transport Cask	A	NAC Intl.

C. Radioactive Material Transport Packages (10 CFR 71)

Radioactive Material Transport Packages subject to the provisions of 10 CFR 71, Subpart C, "General Licenses" are "Important-to-Safety" and subject to the applicable requirements of the QAP.

NOTES:

1. See NAC-UMS Storage System Safety Analysis Report (SAR) and associated NAC specifications for additional classification information.

2. See NAC UMS Transport Cask Safety Analysis Report and associated NAC specifications for additional classification information.

3. For the definition of Quality Categories A, B, and C refer to NUREG/CR-6407.

APPENDIX C

(Page 1 of 3)
ADMINISTRATIVE CONTROLS

SCOPE

This appendix contains additional administrative controls and specific license basis-related requirements relating to the Maine Yankee ISFSI.

Changes to the requirements detailed in this appendix shall be processed in accordance with 10 CFR 50.54(a) requirements.

1) PROGRAMATIC ADMINISTRATIVE CONTROLS

a) PROCEDURES

Written procedures shall be established, implemented, and maintained covering the following activities:

i) The procedures applicable to the safe storage of irradiated fuel;

ii) Emergency Plan implementation;

iii) Quality assurance for environmental monitoring;

iv) Fire Protection Program implementation; and

v) Radiation Protection Program and Offsite Dose Calculation Manual.

Each procedure and changes thereto, shall be reviewed by an Independent Safety Reviewer (ISR) and approved by the ISFSI Manager prior to implementation and reviewed periodically as set forth in administrative procedures.

The following programs shall be established, implemented and maintained.

b) RADIATION PROTECTION PROGRAM

Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR 20 and shall be approved, maintained, and adhered to for all operations involving personnel radiation exposure.

c) OFFSITE DOSE CALCULATION MANUAL (ODCM)

The ODCM shall contain the methodology and parameters used in the calculation of off-site doses and in the conduct of the radiological environmental monitoring program; and

The ODCM shall also contain the radiological environmental monitoring activities and descriptions of the information that should be included in the Annual Radiological Environmental Operating Report required by the ODCM.

Licensee initiated changes to the ODCM shall be documented and records of reviews performed shall be retained. This documentation shall contain:

(1) Sufficient information to support the change(s) together with the appropriate analyses or evaluations justifying the change(s);

(2) A determination that the change(s) maintain the levels of radioactive effluent control required by 10 CFR 20.1302, and 40 CFR 190, 10 CFR 50.36a, and 10 CFR 50, Appendix I, and do not adversely impact the accuracy or reliability of dose calculations;

(3) Shall become effective after approval by the ISFSI Manager or designee; and

(4) Shall be submitted to the NRC in the form of a complete, legible copy of the entire ODCM as a part of or concurrent with the Annual Radiological Environmental Operating Report for the period of the report in which any change in the ODCM was made. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (i.e., month and year) the change was implemented.

2) REPORTING REQUIREMENTS

The following report(s) shall be submitted in accordance with 10 CFR 50.4.

a) ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

The Annual Radiological Environmental Operating Report covering the plant activities during the previous calendar year shall be submitted by May 15 of each year. The report shall include summaries, interpretations, and analyses of trends of the results of the radiological environmental monitoring program for the reporting period. The material provided shall be consistent with the objectives outlined in the Offsite Dose Calculation Manual (ODCM).

The Annual Radiological Environmental Operating Report shall include the results of analyses of all radiological environmental samples and of all environmental radiation measurements taken during the period pursuant to the locations specified in the table and figures in the ODCM, as well as summarized and tabulated results of these analyses and measurements. In the event that some individual results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted in a supplementary report as soon as possible.

b) RADIOACTIVE EFFLUENT RELEASE REPORT

The Radioactive Effluent Release Report covering the activities of the site in the previous year shall be submitted prior to May 1 of each year in accordance with 10 CFR 50.36a. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the site. The material provided shall be consistent with the objectives outlined in the ODCM and in accordance with 10 CFR 50.36a and 10 CFR Part 50, Appendix I, Section IV.B.1.

3) HIGH RADIATION AREA CONTROL REQUIREMENTS

Pursuant to 10 CFR 20, paragraph 20.1601(c), in lieu of the requirements of 10 CFR 20.1601, each high radiation area, as defined in 10 CFR 20, in which the intensity of radiation is > 100 mrem/hr, but < 1000 mrem/hr, shall be barricaded and conspicuously posted as a high radiation area and entrance thereto shall be controlled by requiring issuance of a Radiation Work Permit (RWP). Individuals qualified in radiation protection procedures or personnel continuously escorted by such individuals may be exempt from the RWP issuance requirement during the performance of their assigned duties in high radiation areas with exposure rates ≤ 1000 mrem/hr, provided they are otherwise following site radiation protection procedures for entry into such high radiation areas.

Any individual or group of individuals permitted to enter such areas shall be provided with or accompanied by one or more of the following:

i) A radiation-monitoring device that continuously indicates the radiation dose rate in the area.

ii) A radiation-monitoring device that continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such area with this monitoring device may be made after the dose rate levels in the area have been established and personnel are aware of them.

iii) An individual qualified in radiation protection procedures with a radiation dose rate-monitoring device, who is responsible for providing positive control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified by Radiation Protection in the RWP.

In addition to the requirements above, each high radiation area, as define in 10 CFR 20, with radiation levels ≥ 1000mrem/hr shall be provided with locked or continuously guarded doors to prevent unauthorized entry and the keys shall be maintained under the administrative control of the ISFSI Manager on duty or radiation protection supervision. Doors shall remain locked except during periods of access by personnel under an approved RWP that shall specify the dose rate levels in the immediate work areas and the maximum allowable stay times for individuals in those areas. In lieu of the stay time specification of the RWP, direct or remote (such as closed circuit TV cameras) continuous surveillance may be made by personnel qualified in radiation protection procedures to provide positive exposure control over the activities being performed within the area.

For individual high radiation areas, as defined in 10 CFR 20, with radiation levels of > 1000 mrem/hr, accessible to personnel, that are located within large areas such as reactor containment, where no enclosure exists for purposes of locking, or that cannot be continuously guarded, and where no enclosure can be reasonably constructed around the individual area, that individual area shall be barricaded and conspicuously posted, and a flashing light shall be activated as a warning device.

ENCLOSURE 3
CHANGES SUMMARY TABLE FOR
Revisions 31 and 32

Attached is a summary Table 3-1 identifying all of the changes associated with Revisions 31 and 32 to the Quality Assurance Program (QAP) document. These changes do not constitute a reduction in commitment to the Quality Assurance Program (QAP) document. Therefore, included with these changes, as required, are the following:

- All pages affected by the change are enclosed (Enclosures 1 and 2)
- Identification of the changes
- The reason for the change

TABLE 3-1

Affected Page	Rev 31	Rev 32	Reason
Title Page	Change revision number	Change revision number	
Signature Page	Removed Program Manager title; Removed President from approval signatures.		Reflects changes in organizational structure
Page 1		Remove reference to former name of the QA Program	Update terminology
Page 2	Change Title from "ISFSI Manager" to "VP/ISFSI Manager", Eliminate position of Program Manager and change reporting line of ISFSI QA to CNO as well as to the President		Reflective of current organizational roles and responsibilities
Page 11	Change title of Quality Assurance Representative to ISFSI QA		Reflective of current organizational roles and responsibilities
Page 13		Change STC reference to UMS Transport	Correct to proper NAC terminology
Page 14	Add CNO position		Editorial to reflect management changes
Page 16		Change STC reference to UMS Transport	Correct to proper NAC terminology
Page 17		Remove blank row from table	Editorial
Page 18		Change STC reference to UMS Transport	Correct to proper NAC terminology

TABLE 3-1

Page 20		Remove paragraph on Administrative Controls which said that Administrative Controls were moved from Technical Specifications and License Conditions to the QAP	Editorial
Page 21		Remove reference that Reporting Requirements were relocated from technical Specifications and License Conditions	Editorial
Page 22		Remove reference that High Radiation Area Controls were relocated from Technical Specifications and License Conditions	Editorial