U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION I

Report No. 309/81-31

Docket No. 50-309

License No. DPR-36 Priority - Category C

Licensee: Maine Yankee Atomic Power Company

1671 Worcester Road

Framingham, Massachusetts 01701

Facility Name: Maine Yankee Atomic Power Station

Inspection at: Wiscasset and Augusta, Maine

Inspection conducted: November 2-6, 1981

Inspectors: G. Napuda, Reactor Inspector — 1/15/82 date signed

W. J. Lazarus, Reactor Inspector — 1/19/82 date signed

P. D. Swetland, Resident Inspector — 1/19/82 date signed

Approved by: D. L. Caphton, Chief, Management Programs Section, Division of Engineering and Technical Inspection — 1/19/82 date signed

Inspection Summary:
Inspection on November 2-6, 1981 (Inspection Report No. 50-309/81-31)
Areas Inspected: Routine, unannounced inspection by two region based inspectors and the resident inspector of the Quality Assurance Program (QAP) implementation including audits; design changes/modifications; offsite support staff; QA/QC administration; QA/QC surveillance; and followup on previously identified items. The inspection involved 61 inspector hours onsite by two region based inspectors, 12 inspector hours at the corporate office by a region based and the resident inspector, and 15 inspector hours in-office by a region based inspector.
Results: Of the seven areas inspected no items of noncompliance were identified in five areas and two items of noncompliance were identified in two areas (Failure to establish and implement QA surveillance of specified activities, paragraphs 5.b; maintenance workers performing NDE of each others welding, paragraph 4.c).

DETAILS

1. Persons Contacted

* C. Frizzle, Manager, Nuclear Support
* J. Hebert, Director, Plant Engineering
* A. Jordan, Operation QA Coordinator
  R. Jutras, Plant Engineer
* R. Lawton, Director, Operational QA
* J. Randazza, Manager of Operations (Vice President)
* D. Sturniolo, Assistant to Plant Manager
* E. Wood, Plant Manager

* Denotes those present at the exit interview conducted on November 6, 1981.

The inspectors also contacted and interviewed other licensee employees including staff engineers, technicians, and administrative and operations personnel.

2. Licensee Action on Previous Inspection Findings

(Closed) Unresolved Item (309/79-16-02): Revise appropriate procedure to clarify that QA personnel can initiate NCR for non audit discrepancies. This item is closed for record purposes as the new Operational Quality Assurance Program (OQAP) and implementing procedures now address the issue.

(Closed) Unresolved Item (309/79-16-03): Scope, authority, duties and responsibilities of PEQAG to be addressed in a procedure. This item is closed for record purposes as the new organization does not retain this group nor does the new OQAP make provisions for such a group.

(Closed) Unresolved Item (309/79-16-05) Control of Temporary Procedures. Licensee control measures for temporary procedures are specified in Quality Assurance Procedures 0-06-1 Procedure Preparation, Classification, and Format; Revision 0, dated 8/28/81 and 0-06-02 Procedure Review, Approval and Distribution; Revision 0, dated 8/28/81. The inspector verified that temporary procedures are controlled in accordance with the above procedures and that expiration dates are specified and observed. The inspector reviewed the active temporary procedures (4-112 through 4-123); no items of non-compliance were identified, this item is closed.

(Open) Unresolved Item (309/79-16-06) NRC to review revised licensee procedure classification. The inspector reviewed Quality Assurance Procedure 0-06-01, Procedure Preparation, Classification, and Format, Revision 0 dated 8/28/81. The inspector identified that procedures classified in accordance with the above procedure may be in conflict with the procedural requirements of Technical Specification 5.8, ANSI N18.7, and Regulatory Guide 1.33. For example, Chemistry Department analytical procedures for safety-related

analyses require Onsite Committee review and Plant Manager approval at two year intervals. Procedure 0-06-01 specifies a 4-year review cycle by the department head for such procedures. The licensee stated that Procedure 0-06-01 would be revised to remove conflicts with these other regulatory requirements and that required changes to plant procedures would be accomplished prior to the next annual quality assurance program review.

3. QA Program

a. Introduction

The Maine Yankee organization has established a QA program that is designed to be controlled and implemented by Maine Yankee. This represents a significant departure from the past concept of QA at MY which relied heavily on the Yankee Atomic Electric Company, Nuclear Services Division (YAEC-NSD). Maine Yankee developed an internal Operational Quality Assurance program (OQAP) which was submitted to the NRC for review. A primary goal of this inspection was to determine the adequacy of implementation of this new MY OQAP concept. The new concept was implemented by MY in September of 1981 and therefore this inspection concentrated on the implementation and effectiveness of the OQAP since September 1981.

b. References

-- 0-00-3, Audits, Rev. 0
-- 0-00-8, Housekeeping, Rev. 0
-- 0-06-1, Procedure Preparation, Classification and Format, Rev. 0
-- 0-06-2, Procedure Review, Approval and Distribution, Rev. 0
-- 0-08-4, Discrepancy Reports, Rev. 0

c. Program Review

The inspector reviewed at the Region I office the changes made to the organization, the above referenced procedures, and procedures references in other paragraphs of this report identified by an asterisk to ascertain that they were consistent with the QA Program as described in the Maine Yankee Atomic Power Company (MYAP) Operational Quality Assurance Program (OQAP), Revision 1, that was accepted by the NRC (with two outstanding exceptions).

Quality Assurance Procedure 0-01-1 Design Change Alteration, Revision 0, describes the method for making changes to approved design change documents. Paragraph 7.3.2, which requires concurrence of proposed changes to design documents, does not insure independency of review as specified by 10 CFR 50 Appendix B and ANSI N45.2. The procedure as written permits the initiating engineer of a proposed change to also concur in the proposal which circumvents the independent review. The licensee stated that the intent of procedure 0-01-1 was to require independent review and that the procedure would be clarified.

As a preventive measure to possibly eliminate future problems, the inspector discussed the need for clarity in procedures related to audit response time and use of uncontrolled drawings. Other paragraphs of this report discuss concerns with the implementation of the QA Program.

d. Organization

The Operational Quality Assurance Program described key organizational responsibilities and major functions, and provided organization charts. The licensee recently developed manpower organization charts and job descriptions that detail individual duties and responsibilities for the Administrative, Nuclear Engineering and Licensing, Training, Quality Assurance, Plant Engineering, and Operational Support Departments.

The MY OQAP is in a transition wherein Operational Quality Assurance responsibility is being assumed by the MY organization. Previously, much of the OQAP implementation had been accomplished by Yankee Atomic Electric Company (YAEC). MY retains the YAEC on a contractual basis to supplement the MY staff to assure implementation of OQAP commitments.

The inspector reviewed the MYAP Policy for Interaction Between Yankee Atomic Electric Company, Nuclear Services Division (YAEC-NSD) and Maine Yankee Atomic Power Company, November 1980. This document describes organizational relationships; communications; support services; use of outside contracted services; FSAR and drawing maintenance and update; cost control; authorized responsibilities; and, communications and correspondence with the NRC.

Another document, the Contract Between Yankee Atomic Electric Company and Maine Yankee Atomic Power Company, detailed man-hour services; assignment of traditional services to others; term of the agreement (three years); automatic renewal (two years); reduction in agreement scope (can be exercised with one year notice as long as it is less than 10% of the average man-hours for the preceeding three years); and, types of services.

The QA Department staffing to implement the organization is discussed in paragraph 8b.

e. QA/QC Administration

The inspector reviewed the referenced documents to verify that:

-- The scope and applicability of the QA Program were defined
-- Appropriate guidance was provided by the procedures for the intended area
-- Adequate implementation of the procedures would fulfill QA Program requirements

-- Management controls and overview were addressed
-- Authority and responsibility for each QA position was specified

Staffing level and program implementation are discussed in other paragraphs of this report.

4. QA Inspections

a. References

* -- 0-00-4, Safety Classification of Systems, Components, and Structures, Rev. 0
-- 0-00-7, Independent Inspection, Rev. 0
* -- 0-07-1, Installation and Maintenance of Safety Classified Systems, Components, and Structures, Rev. 0
* -- 0-07-2, Control of Special Processes, Rev. 0
* -- 0-07-3, Maintenance Requests, Rev. 0

b. Implementation Review

The inspector reviewed onsite records of maintenance activities from September 11, 1981 until October 30, 1981 to verify that safety related maintenance activities were being controlled in accordance with the Maine Yankee Operational Quality Assurance Program as implemented by the above procedures.

The inspector's findings are:

A total of 214 completed maintenance requests were reviewed. Of these, 32 involved safety class, Class 1E, or QA related equipment. Only one of the 32 included independent inspection by the QA Department. Although the QA Department reviews each Maintenance Request to determine whether independent inspection is required, there are no guidelines in plant procedures to determine which activities will receive independent inspection. This low percentage of independent inspections being performed, combined with the lack of any routine surveillance of maintenance activities is objective evidence of inadequate implementation of the approved Quality Assurance Program.

The failure to perform a meaningful number of independent QA inspections and to incorporate guidelines in plant procedures regarding activities to receive independent inspections is an unresolved item (50-309/81-31-05) and considered to be a major weakness in the MY OQAP.

c. Independence of QA Inspection Function

Review of documentation associated with Maintenance Request 1436-81, (Letdown Line Weld Repair July 19, 1981) was made to determine whether QA Program requirements were being met and QA independence was being maintained.

The inspector's findings are:

-- The NDE examiner who performed the LP inspection on the weld, reports to the same immediate supervisor as the welder. This is contrary to the requirements of ANSI N45.2-1977, "QA Program Requirements for Nuclear Facilities" (Section 11)

-- The qualifications of the NDE examiner were not reviewed by the Operational Quality Assurance Department as required by Section X, paragraph h of the Maine Yankee Operational Quality Assurance Manual

-- The NDE examiner's certification to perform LP testing had expired in January, 1980

The above three examples constitute a violation with 10 CFR 50, Appendix B, Criterion X, which states in part, "A program for inspection activities affecting quality shall be established and executed ...." (50-309/81-31-02).

5. QA Surveillance

a. References

-- MYAP Operational Quality Assurance Program (OQAP), Revision 1

b. Implementation

The inspector noted that implementing procedures failed to address QA surveillance activities. Discussions and interviews with licensee representatives confirmed this to be the case and further, identified that the licensee did not establish or implement a system of QA surveillance for ongoing activities.

This is contrary to the OQAP which states in part, "The Operational Quality Assurance department shall be responsible for: a. Surveillance, audit and/or inspection of the controls and issuance of materials, part, and components covered by the Operational Quality Assurance Program."(Section VIII.B.1); "The Operational Quality Assurance Department shall be responsible for: A. Providing surveillance, audit and/or inspection of the control of special processes."(Section IX.B.1); "The Operational Quality Assurance Department shall be responsible for: a. Providing surveillance, audit and/or inspection of the handling, storage, and shipping of materials, parts, and components."(Section XIII.B.1). Several other sections also require surveillance of applicable activities by QA.

The failure to establish and implement a system of QA surveillance is an item of noncompliance with 10 CFR 50, Appendix B, Criterion II,

which states in part, "This program shall be documented by written policies, procedures, or instructions and shall be carried out throughout plant life in accordance with those policies, procedures or instructions." (50-309/81-31-03).

6. Audits

a. References

-- Applicable procedures in paragraph 3.a

b. Implementation

The inspector reviewed 1980 and 1981 Inplant Audit Summaries (schedules) and noted that only six of the scheduled 17 audits for 1981 had been conducted to date. The inspector also reviewed each completed audit cover sheet to determine man days expended on these audits. The inspector then determined that the 11 audits yet to be conducted would require approximately 34 man days.

The above was discussed with the Director-QA who stated that two audits were in process and the others would be completed within the required time period. The Director-QA also stated that MYAP intended to continue using YAEC-NSD for 10 CFR 50 Appendix B and Technical Specifications required audits (see paragraph 3.c).

The inspector stated that the technical adequacy of audits would be reviewed during a future routine inspection. The inspector questioned the licensee regarding the ability of the audits as scheduled to meet the intent of ANSI 18.7 paragraph 4.5 "To verify compliance with all aspects of the administrative and quality assurance program" since only six of the scheduled 17 audits for 1981 had been conducted as of November 6. The matter of not performing timely audits that will verify compliance with all aspects of the QA program concurrent with the conduct of the on-going activities is considered a weakness in the program and is unresolved (50-309/81-31-06).

7. Design Changes/Modifications

a. References

* -- 0-01-1, Design Change Alteration, Revision 0

* -- 0-01-2, Document Revision, Revision 0

b. Implementation

The inspectors selected and reviewed the design changes listed below to verify, as applicable, that: they were accomplished in accordance with 10 CFR 50.59 and the licensee's QA Program requirements; code

requirements and specifications were included; records of equipment performance were reviewed and accepted; and, prints/drawings and operating procedures were revised (a sample).

The following modification packages were reviewed.

-- EDCR 81-3, HPSI Header
-- EDCR 81-16, Safety Injection Header

The inspector also reviewed the log of outstanding/open modifications and noted that a significant portion had the work completed in 1981 and only two were of 1979 vintage.

c. Drawings

The inspector noted instances where the dissemination of as-built information to holders of controlled drawings affected by modifications was not performed in accordance with established procedures. The inspector also noted clerical errors in the annotation of drawings affected by modifications.

The inspector stated that the cause for the noted errors appeared to be the result of insufficient manpower. The licensee stated that this had been recognized and additional personnel had been authorized for this area within the past few days.

The inspectors reviewed a sample of full size drawings used in the Control Room for operations activities. The inspectors verified that recent modifications were correctly depicted on these drawings.

The licensee stated that as a result of a recent INPO inspection and plant experience the system of providing as-built information to those who have immediate need of it had been revised to the present method. Other document/drawing control practices have been affected and are in need of revision. The licensee stated that the current practices will be clearly defined in appropriate procedures or revisions to existing procedures by January 1, 1982.

This item is unresolved pending review of licensee action (50-309/81-31-04).

8. Review of Staffing and Support

a. Off Site Support

A review of the offsite support staff was conducted by the inspectors which included procedure reviews, reviews of personnel qualifications, and procedure implementation to verify the following.

-- Administrative controls which describe the responsibilities, authorities and lines of communications have been developed and are readily available
-- The applicable referenced procedures in subparagraphs of other paragraphs in this report are in conformance with the requirements of 10 CFR 50, Appendix B and the licensee's approved QA Program
-- The managers, and group leaders are aware of their responsibilities and authorities as defined by the applicable referenced procedures
-- The personnel which comprise the offsite support staff are qualified to execute the responsibilities defined by the applicable referenced procedures

Based on the above review, no violations were identified.

b. QA Department

A review of the current staffing of the QA Department indicated a three man staff: A QA Engineer (corporate office); an Operational Quality Assurance Coordinator (on site); and a Director-Operational QA.

All work including review of Maintenance Requests and design changes/modifications, and performance of receipt inspections and independent inspections must be accomplished by the latter two individuals. The inspector expressed his concern regarding [illegible]ful implementation of the QA Program with the existing staff. [illegible] exit interview, the Vice President and Manager of Operations acknowledged the inspector's concerns and indicated that they were in the process of adding a Senior OQA Coordinator and two QC inspectors to the plant staff to improve the plant QA capabilities.

This item is unresolved pending further review of the adequacy of the implementation of the QA Inspection System (50-309/81-31-01).

9. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance or deviations. Unresolved items identified during this inspection are discussed in paragraphs 4.b., 6.b., 7.c. and 8.b.

10. Exit Interview

The inspectors met with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on November 6, 1981. The scope and findings of the inspection as stated in this report were presented, and licensee representatives confirmed the specific date contained within this report as applicable to the specific action.