UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

June 7, 1996

MEMORANDUM TO: Chairman Jackson

FROM: Edward L. Jordan, Director
Office for Analysis and Evaluation
of Operational Data

SUBJECT: INTEGRATED SAFETY ASSESSMENT OF MAINE YANKEE NUCLEAR STATION

In accordance with Mr. James M. Taylor's memorandum to me, dated May 31, 1996, our plan for accomplishing the Maine Yankee Integrated Safety Assessment is provided as Attachment 1. My letter, dated June 7, 1996, advising the licensee of the ISA is provided as Attachment 2. Mr. Taylor's tasking memorandum, dated May 31, 1996, is provided as Attachment 3. The plan includes a schedule of principal activities, the team composition and members, the overall goals and objectives, and the methodology for the evaluation. I will provide revisions to the plan as significant changes occur.

As requested, we have coordinated with the State of Maine to facilitate participation by State Representatives. We will assure this participation is consistent with the provisions of the Commission's Policy on Cooperation with States at Commercial Nuclear Power Plants.

I will give this assignment my highest priority except for response to a licensed facility emergency. I would be happy to discuss the details of the plan at your convenience.

Attachments: As stated

cc/w attachments:
Commissioner Rogers
Commissioner Dicus
SECY
J. Taylor
OPA
OGC
OCA

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Enclosure 2

Maine Yankee Plant
Independent Safety Assessment (ISAT) Team Plan

1. Facility
Name: Maine Yankee Power Station
Licensee: Maine Yankee Atomic Power Company
Docket No.: 50-309
Location: Lincoln County, Maine

2. Principal Activities Schedule

Licensee Notification	May 31, 1996
Team Composition Established	June 7, 1996
Brief Chairman on Plans	Week of June 10, 1996
Advance Site Trip	June 20-21, 1996
Team Preparation	June 10 - July 12, 1996
Public Entrance Meeting at Maine Yankee	July 15, 1996
Initial Onsite Evaluation	July 15-26, 1996
Compile Preliminary Findings	July 29 - August 9, 1996
Brief Chairman on Preliminary Findings	Week of August 5, 1996
Second Onsite Evaluation	August 12-23, 1996
Brief Chairman on Findings	Week of August 26, 1996
Provide Final Report to the Chairman	September 27, 1996
Conduct Public Meeting with Licensee at site and hold press conference	Week of September 30, 1996

3. Team Organization Team Manager

Team Manager	*Edward L. Jordan, AEOD
Team Leader	*Ellis W. Merschoff, RII
Operations and Training	*Kriss M. Kennedy, RIV - Senior Resident (ANO) License Examiner *John Kauffman, AEOD - Operations & Human Performance Shift Supervisor (BWR) Larry Bell, AEOD - TTC Operations & Training Shift Supervisor (CE)
Maintenance and Testing	*Ronald Lloyd, AEOD - Extensive DET team leader experience *Peter Prescott, AEOD - AE experience Russell Bywater, RIII - Resident (PI, W) Contractor - PRA

* Previous Diagnostic Experience

Engineering Design and Technical Support	Thomas O. Martin, RES - Extensive experience leading NRC Team Engineering Assessments John Boardman, AEOD - Regional Inspection, Mechanical Engineering John Hauseman, RIII - I&C Engineer, Industry Experience G. Norman Lauben, RES - Thermo hydralic codes Contractor - A&E Mechanical Contractor - A&E Electrical
Management and Organization	*Alan L. Madison, AEOD - Extensive DET and Industry experience Harold Christensen, RII - Chief of Maintenance Branch, former Senior Resident (BWR) Contractor - Industry Management experience
Administrative Assistant	*Ola B. West, RII
State Participants	Uldis Vanags Patrick Dostie

4. Overall Goals and Objectives

- Provide an independent assessment of the conformance of Maine Yankee Atomic Power Station to its design and licensing bases including appropriate reviews at the site and corporate offices.
- Provide an indepenuent assessment of operational safety performance providing risk perspectives where appropriate.
- Evaluate the effectiveness of licensee self-assessments, corrective actions and improvement plans.
- Determine the root cause(s) of safety significant findings and draw conclusions on overall performance.

5. Detailed Objectives

5.1 Engineering, Technical Support, Design and Licensing Basis

Evaluate the effectiveness (strengths, weaknesses) of engineering design basis and engineering and technical support functions through: (1) accomplishment of an in depth engineering review of at least one major

* Previous Diagnostic Experience

safety system (such as high pressure injection, auxiliary feedwater, etc.), including an assessment of the ability of this system, as modified, maintained, tested, and operated by the licensee, to perform its intended safety functions through an in-depth review of the work of the various engineering disciplines; and (2) a review of the technical adequacy, timeliness, or thoroughness associated with responses to emergent work, plant deficiencies, or engineering modifications.

As part of pursuing these areas the team will expect to be able to make assessment observations regarding:

- The quality of engineering work and analysis supporting the design and licensing basis.
- The availability, accuracy, and utilization of design and licensing information.
- The appropriateness of analytic techniques and methods supporting the design and license.
- The effectiveness of engineering management and the degree of success that management has had in identifying problems and correcting them, including the degree to which the engineering organization is actively seeking out problems (intrusiveness).
- The treatment of licensing commitments.
- Communication or coordination problems among the various engineering groups and between these groups and other plant staff.
- The effectiveness of vertical communications and whether the staff is encouraged to identify problems and develop technically sound solutions.
- Whether PRA is being used appropriately in the determination of the need to evaluate technical issues.
- The licensee's self-assessment capabilities and results as it pertains to engineering.
- Root cause determinations and corrective actions as performed by engineering staff.
- The role of audit and review groups, such as an off-site safety review committee, in the adherence to the current licensing basis.

- The plant design change and modification process, including temporary modifications and the process for safety evaluations in accordance with 10 CFR 50.59.

- Identify noteworthy licensee strengths and weaknesses in the above areas.

5.2 Operations and Training

Evaluate the effectiveness (strengths, weaknesses) of operations and training through: (1) observation of control room activities during all shifts, (2) observation of auxiliary and equipment operators conducting routine rounds, and (3) observation of training activities in the simulator.

- Identify any communication and teamwork problems and their causes, particularly between operators and shift management and between operating crews and horizontal communications with other plant departments.

- Determine if plant operations problems are being freely reported up to senior and top management.

- Determine the adherence to and effectiveness of plant operating procedures and the causes for any weaknesses or deficiencies.

- Identify equipment failure burdens on the operating staff and the manner by which licensee management deals with equipment problems identified by the operations staff.

- Evaluate the licensee's self-assessment capabilities and results as it pertains to operations and training.

- Identify specific performance, programmatic and operations management problems and their causes including any management oversight problems.

- Evaluate whether PRA is effectively integrated into operational decisions.

- Evaluate the training program as it relates to communicating and refreshing the knowledge of the current licensing basis to all staff.

- Identify noteworthy licensee strengths and weaknesses in the above areas.

5.3 Maintenance and Testing

Evaluate the effectiveness (strengths, weaknesses) of maintenance and testing.

- Evaluate whether the Licensing/Design Basis is met/maintained through testing, relative to FSAR and SER commitments.
- Evaluate the material condition of the plant, including trends and patterns in equipment and material problems and assessment of safety system reliability and availability.
- Identify communication, coordination or cooperation problems and their causes.
- Evaluate the effectiveness of maintenance management, including the oversight of maintenance contractors. Assess the degree of success that management has had in identifying causes of problems and correcting them.
- Evaluate the work backlog, maintenance rework, and the extent of repetitious equipment failures; identify work processing problems and their causes.
- Identify the extent to which the backlog is prioritized, according to risk, or other measures of priority.
- Evaluate whether PRA is effectively used in the conduct of maintenance performed under an LCO.
- Evaluate maintenance department resources and other site and corporate resources provided, including engineering and technical support of various maintenance programs and processes, and contractor maintenance activities.
- Evaluate the effectiveness of preventive and predictive maintenance programs.
- Identify additional specific performance and programmatic problems and their causes including adherence to maintenance and test procedures.
- Assess human performance during the conduct of maintenance and test activities.
- Identify noteworthy licensee strengths and weaknesses in the above areas.

5.4 Management and Organizational Effectiveness

Evaluate the effectiveness of corporate and site management practices and systems for assuring safe plant operation, particularly with regard to control and maintenance of the design basis. Evaluate the effectiveness (strengths, weaknesses) of the licensee's performance in planning and controlling plant activities. Determine the effectiveness of the licensee's identification, assessment and resolution of deficiencies.

- Evaluate corporate and site staff performance with respect to their approach to safety, including the priority and relationship between production and safety.

- Evaluate organizational communications and teamwork, including relationships, interfaces, and accountability both within and between Maine Yankee work groups and departments; between the plant and corporate.

- Evaluate whether the corporate goals and objectives of the organization are clearly understood and translated from broad statements into specific subordinate actions. Evaluate whether the goals are periodically monitored and achieved, as well as whether sufficient management support and resources are provided for success.

- Evaluate the effectiveness of site and corporate self-assessment programs and processes, including oversight committees, relative to the identification and resolution of deficiencies, particularly those deficiencies affecting the design and licensing bases.

- Assess the effectiveness of corrective action programs, improvement programs, and self-assessment or independent initiatives to obtain sustained and permanent improvements. Evaluate the role and effectiveness of corporate and site organizations, including the Quality Assurance Department, Licensing and onsite/offsite review committees in meeting these objectives.

- Evaluate the ability of the corporate and site staff to identify and take corrective action for substantive problems, including assessment of the appropriateness of the licensee's threshold for problem identification.

- Evaluate the effectiveness of corporate and site programs and processes for addressing employee concerns.

- Evaluate the effectiveness of programs for tracking and trending plant performance.

- Evaluate the effectiveness of programs for evaluating and implementing industry operating experience.

- Evaluate the short and long term planning processes, including the methods of assigning priority and responsibility, allocating resources, providing accountability, and the effects of interactions with external organizations.

- Evaluate the effectiveness of programs for succession planning, staff development and utilization of experience, as they relate to safety performance.

- Evaluate the safety impact of any cost control efforts, management rotations, and organizational changes.

- Identify noteworthy licensee strengths and weaknesses in the above areas.

6. Assessment Methodology

The ISAT will apply the basic methodology of the diagnostic evaluation program to develop an overall assessment of licensee performance across the areas of operations and training; maintenance and testing; engineering and technical support; and management and organization.

The approach will deviate from this methodology in the following areas:

- The members of the ISAT will be independent of Region 1, NRR, and of any recent or significant regulatory involvement with Maine Yankee Atomic Power Company.

- The ISAT will report directly to the Chairman.

- The ISAT will include participation of two members of the State of Maine's Division of Health Engineering within the framework of the NRC's Policy Statement on Cooperation with States at Commercial Nuclear Power Plants.

7. Coordination and Communication with the Chairman, the NRC Staff, and the State of Maine

Chairman

The ISAT manager reports directly to the Chairman, and will keep her informed of the assessment's progress through periodic briefings. Currently, five such briefings are planned at the following Key Milestones:

Milestone	Chairman Brief
Team Composition/Assessment Plan Development	Week of June 10, 1996
Assessment Plan Revisions based on Team Preparation	Week of July 8, 1996
Completion of Initial Onsite Assessment	Week of August 5, 1996
Completion of Second Onsite Assessment	Week of August 26, 1996
Prior to Public Exit Meeting and Press Conference	Week of September 30, 1996

Additional briefings of the Chairman will be scheduled as requested, or based on significant emerging issues.

NRC Staff

During the course of the assessment, any emerging safety issues requiring prompt action to assure the health and safety of the public will be provided to the licensee, Region I, and NRR for appropriate action and followup. Additionally, allegations received by ISAT members will be processed through the NRC allegation management system, with responsibility for resolutions falling to the appropriate NRC office.

In order to maintain effective and consistent regulatory oversight of Maine Yankee, appropriate managers and staff in the EDO's office, NRR, and Region I will be briefed on the ISAT findings at Key Milestones following the brief of the Chairman. Coordination will be developed with the Office of Investigations and the Office of the Inspector General to assure they are informed of findings related to their areas of responsibility and to assure any parallel work is fully coordinated.

State of Maine

In order to keep the State of Maine informed of the progress of the ISAT, briefings of the Governor will be offered through the State Representatives. The first briefing will be offered prior to the first onsite period, which begins with an entrance meeting that is open to the public, and will address the overall plan and approach of the ISAT. The second briefing will be offered prior to the public exit meeting and will address the team's findings and conclusions.

8. Assessment Preparation

ISAT leaders will begin preparations June 10, 1996. ISAT members will assemble and begin preparations June 17, 1996. Meetings will be held in the AEOD offices in the Two White Flint North Building. Detailed presentations will be provided by Regional, NRR and AEOD staff on Maine Yankee relative to the unique aspects of the plant and any significant technical licensing, or performance issues. Additionally, site specific information (e.g., inspection reports and licensee procedures) will be distributed and discussed to assist the ISAT members in the preparation process, which will extend through July 12, 1996. Training in the ISAT process, site access training and the expectations of the ISAT management will be provided. Draft functional area evaluation plans will be discussed during the team meeting, followed by a detailed evaluation plan, which will be approved by the team manager.

9. Independent Safety Assessment Documentation

As issues are identified during the evaluation, each ISAT member will document the issues, in detail, using the standardized observation forms. Completed observation forms will be given to the Team leader and revised as new information becomes available. The observation forms will be used to brief licensee management during the onsite evaluation, and NRC management at the conclusion of the evaluation. The ISAT report will be completed by September 27, 1996 and will be issued following the on site public meeting with the licensee. Writing styles (including level of detail to be presented) should be consistent with the guidelines established for diagnostic evaluations. Additionally, the team will provide Region I with documentation of areas evaluated and time expended relative to Manual Chapter 2515 to ensure appropriate credits can be taken.

10. The Maine Yankee ISAT will include an Administrative Assistant, to support the administrative needs and activities of the team, who will report to the Team Leader. Travel arrangements, working hours, assignment of rental cars, motel reservations, licensee background material, assembly of documentation of team findings onsite and coordination of the team report preparation, conduct of administrative aspects of the Independent Safety Assessment will be discussed at the team preparation meetings. Security clearances and site access training requirements must be current at that time, so that unescorted access processing can be conducted. It is anticipated that ISAT members will receive unescorted access. Any administrative or logistical questions or concerns should be discussed with the Administrative Assistant.