UNION OF
CONCERNED
SCIENTISTS

FOIA/PA REQUEST
Case No: 99-015
Date Rec'd: 10-19-98
Action Off: Vaca
Related Case:

October 14, 1998

Russell A. Powell, Chief
FOIA/LPDR Branch
Office of the Chief Information Officer
United. States Nuclear Regulatory Commission
Washington, D.C. 20555-0001

SUBJECT: FREEDOM OF INFORMATION ACT REQUEST

Dear Mr. Powell:

Pursuant to and in compliance with 10 CFR 9.41 of the Commission's regulations governing requests for fee waivers, the Union of Concerned Scientists provides the following information.

> All NRC documents associated with Enforcement Actions 96-299, 96-320, 96-375, 96-397, 97-034, 97-147 and 97-559 for the Maine Yankee Atomic Power Station (Docket No. 50-309). The requested documents included Office of Investigation reports and internal letters, memorandum, and e-mail messages to and from the Office of Enforcement regarding this matters.

The Union of Concerned Scientists seeks the requested information solely to contribute to and help shape the public debate concerning safety levels at nuclear plants. UCS is a nationally known non-profit public interest organization founded in 1969. We have provided extensive commentary on Maine Yankee, such as the article entitled "Chain Reaction" that appeared in the Fall 1997 edition of our quarterly magazine, *Nucleus*, and as reported in numerous newspaper articles. That *Nucleus* magazine and a sampling of the newspaper articles are enclosed. *Nucleus* is sent to our sponsors (approximately 70,000). The requested information will allow us to provide a postscript to that *Nucleus* article and discuss NRC enforcement policy related to other operating nuclear power plants. Our efforts have attracted attention in the local, national, and trade media. Thousands of copies of our reports and publications have been distributed to members of the public, Congress, industry, and citizens groups.

Since "disclosure of the information is in the public interest because it is likely to contribute significantly to the public understanding of the operation or activities of the government and is not primarily in the commercial interest of the requester" (5 U.S.C 552(a)(4)(A)(iii)), we request a complete waiver of any processing or duplicating costs you might incur in providing these records to UCS. If you rule otherwise, please notify us before filling the request.

Sincerely,

David A. Lochbaum
Nuclear Safety Engineer

Washington Office: 1616 P Street NW Suite 310 • Washington DC 20036-1495 • 202-332-0900 • FAX: 202-332-0905
Cambridge Headquarters: Two Brattle Square • Cambridge MA 02238-9105 • 617-547-5552 • FAX: 617-864-9405
California Office: 2397 Shattuck Avenue Suite 203 • Berkeley CA 94704-1567 • 510-843-1872 • FAX: 510-843-3785

Attachment 1
Re: FOIA-99-015

EXPLANATION OF THE STATUS OF THE RELEASED DRAFT DOCUMENT WITHIN THE NRC ORGANIZATION AS OF SEPTEMBER 1997

The accompanying draft, predecisional proposed enforcement action against Maine Yankee Atomic Power Company is being released pursuant to FOIA 99-015. However, it is important that any recipient of the document understand that this document was not an approved, agency document and was still subject to further internal deliberations. The document released was determined to be the status of the enforcement action associated with the 1996-1997 Independent Safety Assessment (ISA)Team and related inspections of the Maine Yankee facility as of early September 1997 when the decision was made that the ISA and pending enforcement issues resulting from Office of Investigation findings of wrongdoing at the facility, which were not yet completed, would be combined into one enforcement action.

The released document is the product of nonmanagerial staff's efforts. The document had not yet been formally concurred in by the responsible Office Directors. It had been discussed with the Executive Director for Operations but had not yet been submitted to the EDO or his staff and had not been submitted to the Commission. Accordingly, the content of the package, including the amount of the proposed civil penalty was subject to change.

Attachment 2
Re: FOIA-99-015

EA Nos. 96-299; 96-320; 97-034; 97-147

Mr. Michael B. Sellman, President
Maine Yankee Atomic Power Company
329 Bath Road
Brunswick, Maine 04011

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTIES - $400,000
(NRC Inspection Report Nos. 50-309/96-09; 96-10; 96-11; 96-16; 97-01)

Dear Mr. Sellman:

From July 15, 1996 through March 15, 1997, the NRC conducted several inspections at your Maine Yankee facility in Wiscasset, Maine. These inspections included an Independent Safety Assessment Team (ISAT) inspection, as well as several inspections conducted by resident and Region I based inspectors to follow-up on the ISAT findings. The purpose of the ISAT inspection was to determine whether Maine Yankee was in conformity with its design and licensing bases; to assess operational safety performance; and to evaluate Maine Yankee's self-assessment and corrective action processes. All of the related inspection reports were sent to you previously.

Numerous violations of significant regulatory concern were identified during these inspections. The majority of the violations were discussed at a predecisional enforcement conference at your Maine Yankee media center in Wiscasset, Maine on March 11, 1997. While the conference, which was open to the public, was held to discuss the violations, their causes and your corrective actions, the conference focused on the broader programmatic deficiencies that were underlying the violations and that contributed to the problems at Maine Yankee. Additional violations identified subsequent to the March 11, 1997, conference (reference Inspection Report No. 97-01) are also included in this proposal, although they were not discussed during the conference. Mr. G. Leitch of your staff informed Mr. J. Yerokun of my staff on April 2, 1997, that you agreed that another enforcement conference was not needed to discuss these issues.

The specific violations are described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalties (Notice). A number of the violations adversely impacted the operability of safety related equipment. These violations include: (1) inadequate testing of safety equipment (as described in Section I of the Notice); (2) failure to environmentally qualify electric equipment important to safety for submergence and harsh environments, conditions that may exist following an accident (as described in Section II of the Notice); (3) inadequate safety evaluation and ineffective corrective action for the inability of the control room breathing air supply system to maintain positive pressure in the control room (as described IA Section III of the Notice); and (4)

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failure to take timely action to correct a design deficiency involving the potential failure of the Containment Spray building fans (as described in Section IV the Notice). Additional violations associated with your safety review activities and corrective action processes were also identified. These violations are described in Sections V and VI of the Notice, respectively.

The violations related to inadequate testing (section I of the enclosed Notice) involve failures to adhere to Technical Specifications (TS) and 10 CFR Part 50 Appendix B, thus failing to assure that various safety related instrument channels, logic actuation circuits, safety related pump discharge check valves and cooling water flow control valves function as required. your testing process failed to detect a cut wire in the injection actuation circuit for a high pressure safety injection (HPSI) pump which would have prevented that pump from automatically starting, as required, during an accident. This condition had apparently existed since 1991, but was not detected until 1996 after prompting by the ISAT. These violations represent a significant safety and regulatory concern because testing requirements ensure the implementation of a "defense in depth" barrier for detecting inoperable safety related equipment and ensuring proper operation within expected tolerances.

The violations related to inadequate environmental qualifications (section II of the enclosed Notice) involve: (1) 30 instruments which were either not qualified or could not be qualified for submergence during containment flooding following a loss of coolant accident (LOCA); and (2) the component cooling pumps which were not qualified for a harsh environment in the turbine building. The failure to environmentally qualify the instruments in containment had potentially significant safety consequences. Operators rely on these instruments to monitor safety parameters such as steam generator water level during post accident conditions. Failure of the instruments could hamper operator actions to mitigate the accident. These violations are also a significant regulatory concern because the problem was identified previously, yet was not effectively corrected due to your failure to maintain design control of the containment post-LOCA submergence level. Seven components that were below the submergence level in the containment were identified in your Environmental Qualification (EQ) submittal dated October 31, 1980, and the NRC safety evaluation report (SER) dated June 1, 1981. However, ~ ~ corrective actions were not taken for several of these components in that they were still below the submergence level in 1996.

Sections III and IV of the enclosed Notice deal with conditions adverse to quality that were identified by the licensee, but were not properly evaluated and corrected in a timely manner. For example, although testing identified that one train of control room ventilation could not maintain a positive pressure in the control room, the condition was not corrected due to inadequate evaluation of the test results, as well as failure to take timely corrective actions for a known degraded condition. Also, even though a design deficiency that could have rendered the containment spray building ventilation system inoperable was identified in 1991, the degraded condition was allowed to exist for 5 years due to failure to recognize the significance of the deficiency and weaknesses in your corrective action programs.

Additional violations involving deficiencies in your safety review and corrective action processes are described in sections V and VI of the enclosed Notice. These violations include inadequate safety evaluations, failure to update the Final Safety Analysis Report (FSAR), and failures to

effectively resolve conditions adverse to quality in a timely manner. These problems with your safety review and corrective action processes are of significant safety concern because they involve the degradation of equipment important to safety. For example, the control room ventilation system maintains the protective environment for operators to safely operate the reactor during both normal and accident conditions. The violations are also of significant regulatory concern because they contributed to a loss of control of the design bases of the plant. Your processes for technical and safety review and for identification and correction of degraded conditions failed to function as effective barriers in the "defense in depth~ regulatory framework.

Although the violations described in the enclosed Notice did not result in any actual consequences to the public health and safety, many of these violations and underlying causes were long-standing and reflected the failure of multiple barriers at the facility. These barriers include: design and configuration control; technical and safety review; the corrective action program; and the quality assurance function at both an individual and organizational level. Underlying these inadequacies and failures was a deficient safety culture, in which an apparent over-emphasis on cost and on cost-containment resulted in frequent failure to aggressively identify and correct problems. Those deficiencies contributed to an extended shutdown at Maine Yankee which began in December 1996. Also, Maine Yankee has been designated as a Category 2 facility on the NRC "Watch List" as a result of the numerous problems identified by both the NRC and your staff.

In your letter dated February 28, 1997, in a response to NRC Inspection Report No. 50-309/96-16, and at the March 11, 1997 predecisional enforcement conference, you admitted all the violations that formed the basis for that conference. You also described your assessment of the root causes, and presented your corrective actions to address these issues. The acknowledged root causes of the violations included economic pressures to contain costs, and poor problem identification as a result of complacency and a lack of a questioning attitude as identified by the ISAT. In your efforts to more completely identify the root causes of the problems, you also identified two other major underlying problems, namely, dispersed ownership of key processes, and a non-intrusive quality assurance function. Such findings indicate an environment not conducive to good plant operations, including decommissioning, and must be corrected.

Therefore; (1) in consideration of the high regulatory significance that the NRC attaches to the conditions adverse to quality that existed at Maine Yankee, (2) the importance of effective management and oversight at Maine Yankee during the decommissioning process to ensure establishment and maintenance of a safety conscious environment that encourages employees to surface and resolve concerns, not address potential safety significant issues as they are found. I have been authorized, after consultation with the Director, Office of Enforcement, the Executive Director of Operations, and the Commission, to exercise discretion, pursuant to Section VII.A.1 of the Enforcement Policy and issue the enclosed Notice of Violation and Imposition of Civil Penalties in the cumulative amount of $400,000 for the violations discussed above. But for the extended shutdown and your decision to cease operations, the penalty could have been higher.

This penalty is based on $100,000 for the violations in Parts I.A-I.C of the Notice ($50,000 civil penalty for the testing inadequacies and $50,000 civil penalty for the inoperable HPSI pump due to the cut wire); $100,000 for the violations in Part II (violations for failure to environmentally qualify equipment); $50,000 for the violations in Part III (violations associated with negative pressure in the control room); $50,000 for the violations in Part IV (violations associated with containment spray building ventilation design deficiencies); $50,000 for the violations in Part V (additional violations associated with inadequate safety review activities); and $50,000 for the violations in Part VI (additional violations associated with inadequate corrective actions).

Also, NRC Inspection Report No. 309/96-16 describe another apparent violation dealing with the potential overpressure of the primary component cooling (PCC) water system inside containment. In your response to that report, dated February 28, 1997, you indicated your initiative to identify the problem as a part of your FSAR review in early 1996. You also shutdown the plant in July 1996 based on the potential inoperability of emergency core cooling equipment cooled by this system. Our inspection in this area has independently confirmed that information. Therefore, this violation is not being cited, in accordance with the criteria in Section VII.B.3 of the Enforcement Policy, because: 1) it involves an old design issue which was identified as a result of a voluntary initiative; 2) corrective actions have been taken, including installation of temperature relief valves in the PCC piping; and, 3) it was not likely to be identified (after the violation occurred) by routine licensee efforts such as normal surveillance or quality assurance (QA) activities. Accordingly, no Notice of Violation is being issued.

Also, five violations of NRC requirements related to failure to establish and implement administrative and maintenance procedures (section VII of the enclosed Notice) are classified individually at Severity Level IV.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements. A noteworthy initiative on your part was to respond in writing to Inspection Report 96-16 prior to the predecisional enforcement conference on March 11, 1997. Your initiative greatly assisted us in preparing for the conference and it was a key factor in allowing both parties to focus on substantive performance issues along with corrective actions. In the response addressed above, you may refer to that letter, as appropriate.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, and your response will be placed in the NRC Public Document Room (PDR). To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction.

Should you have any questions concerning this letter, please contact Mr. James Lieberman, Director, Office of Enforcement, at (301) 415-2741.

Sincerely,

Hubert J. Miller
Regional Administrator

Docket No. 50-309
License No. DPR-36

Enclosure: Notice of Violation and Proposed Imposition
cc w/encl:
G. Leitch, Vice President, Operations
M. Meisner, Vice President, Licensing and Regulatory Compliance
B. Hinkley, Acting Vice President, Engineering
J. Block, Attorney at Law
P. Anderson, Project Manager (Yankee Atomic Electric Company)
R. Blacknore, Plant Manager
L. Diehl, Manager of Public and Governmental Affairs
J. Ritsher, Attorney (Ropes and Gray)
P. Dostie, State Nuclear Safety Inspector
P. Brann, Assistant Attorney General
U. Vanags, State Nuclear Safety Advisor
C. Brinkman, Combustion Engineering, Inc.
W. Meinert, Nuclear Engineer
First Selectmen of Wiscasset
Maine State Planning Officer - Nuclear Safety Advisor
State of Maine, SLO Designee
State Planning Officer - Executive Department
Friends of the Coast

Maine Yankee Atomic
Power

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LTremper, OC

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTIES

Maine Yankee Atomic Power Company
Maine Yankee Atomic Power Station

Docket No. 50-309
License No. DPR-36
EA Nos. 96-299; 96-320;
97-034; 97-147

During NRC inspections conducted between July 15, 1996 and August 26, 1996, and between December 8, 1996 and March 15, 1997, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the Nuclear Regulatory Commission proposes to impose civil penalties pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalties are set forth below:

I. VIOLATIONS RELATED TO INADEQUATE TESTING

A. Technical Specification (TS) 3.9.B, "Engineered Safeguards Features Actuation System," Table 3.9-2 No. 1, "Safety Injection," requires, in part, a minimum of 3 operable channels for both high containment pressure and low pressurizer pressure per safety injection actuation system (SIAS) subsystem to be operable whenever automatic initiation of Engineered Safeguards Feature (ESF) systems is required to be operable. TS 3.6.C requires the safety injection system, an ESF system, to be operable whenever the reactor is in a power operation condition.

Contrary to the above, during periods of power operation from December 1991 until August 17, 1996, there were no operable channels of high containment pressure or low pressurizer pressure in the 'A' subsystem of the SIAS. Specifically, the 'A' high pressure safety injection (HPSI) pump would not have automatically started in response to a SIAS signal (high containment pressure or low pressurizer pressure) due to a missing wire in the HPSI pump circuit.

B. Technical Specification 4.0, "Surveillance Requirements," requires that each surveillance requirement in Section 4 be performed within the specified surveillance interval.

1. Technical Specification 4.1, "Instrumentation and Control," requires, in part, that testing of engineered safeguards system logic channels be performed as specified in Table 4.1-2. TS Table 4.1.2, requires, in part, that Channel 3, SIAS actuation relays; Channel 10, refueling water tank level recirculation actuation signal (RAS) initiation; Channel 20, feedwater trip system; and Channel 21, emergency feedwater initiation, be tested at least once every 18 months.

Contrary to the above, prior to August 18, 1996, surveillance tests required by Technical Specification 4.1, Table 4.1-2, were not performed at least once every 18 months. Specifically:

a. Channel 3 - HPSI pump start signals for SIAS and undervoltage

(W) conditions were not tested independently; and the dual function swing pump (P-61S) was not tested as a low pressure safety injection (LPSI) and containment spray pump for W and SIAS actuation;

b. Channel 10 - Manual initiation of RAS was not tested; and the automatic trip of swing pump (P-61S), when used as a LPSI pump, was not tested;

c. Channel 20 - The SIAS permissive was not adequately tested in that the main feedwater pump, condensate pump, and heater drain pump trip systems were not tested with a SIAS coincident with a steam generator low pressure signal; and

d. Channel 21 - Emergency feed water pump circuit breaker closure was not tested.

2. Technical Specification 4.5, "Emergency Power System Periodic Testing," A.2, "Diesel Generators," requires, in part, testing of the diesel generators (DGs), during each refueling interval, that demonstrates their readiness to start automatically and restore power to vital equipment on 1088 of all normal a-c station service power supplies.

Contrary to the above, during each refueling interval prior to August 18, 1996, tests required by Technical Specification 4.5.A.2 were not being performed in that emergency bus loading and load shedding, necessary to demonstrate the DGs readiness to start automatically and restore power to vital equipment on 1088 of all normal a-c station service power supplies, was not adequately tested. Specifically, for the following vital equipment:

a. Service water pumps, P-29B and P-29C, were not verified to remain operating on the bus if they were the only available pumps in the train.

b. Primary component cooling (PCC) pump, P-9B, was not tested as the preferred pump.

c. Secondary component cooling (SCC) pump, P-1OB, was not tested as the preferred pump.

3. Technical Specification 4.6, "Periodic Testing," D.I.a, "Feedwater Trip System, Main Feedwater Pumps," requires that each main feedwater pump, condensate pump, and heater drain pump trip system shall be tested during each refueling interval by tripping the actuation circuitry with a safety injection signal coincident with a steam generator low pressure signal.

Contrary to the above, during each refueling interval prior to August 18, 1996, the testing required by Technical Specification 4.6.D.I.a was not performed to verify tripping of each main feedwater pump, condensate pump and heater drain pump circuit breaker with a safety injection signal coincident with a steam generator low pressure signal.

C. Technical Specification 4.7.A, "Inservice Inspection and Testing of Safety Class Components," requires, in part, the establishment of an "Inservice Inspection Program" that meets the requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, "Inservice Testing of Pumps and Valves," for safety **class 3 pressure** retaining components. ASME Code, Section XI requires inservice testing of check valves for safety related pumps that demonstrates they will close properly.

Contrary to the above, as of August 18, 1996, inservice testing for 15 safety class 3 pressure retaining check valves that were located at the discharge of safety related pumps did not meet the requirements of the ASME Code, Section XI in that the tests failed to demonstrate that the standby pump's discharge check valves would properly close against the discharge pressure from the operating pump, thus preventing short-cycling of the operating pump. Specifically, the following safety class 3 valves were not adequately tested:

1. Charging/HPSI pump discharge check valves CH-10,19 and 26;

2. Emergency feedwater pump discharge check valves EFW-15, and 314;

3. LPSI pump discharge check valves LPSI-50 and 51;

4. PCC pump discharge check valves PCC-6 and 13;

5. SCC pump discharge check valves SCC-7 and 14; and

6. Service water pump discharge check valves SW-1,4,7 and 10 .

These violations in Section I represent a Severity Level III problem (Supplement I). Civil Penalty - $100,000

II. VIOLATIONS RELATED TO ENVIRONMENTAL QUALIFICATION

10 CFR 50.49(f) requires each item of electric equipment important to safety to be environmentally qualified by testing or combination of testing and analysis.

10 CFR 50.49(j) requires that a record of the environmental qualification must be maintained in an auditable form to permit verification that each item of electric equipment important to safety is qualified for its application and meets its specified performance requirements when it is subjected to the conditions predicted to be present when it must perform its safety function.

A. Contrary to the above, as of August 2, 1996, 30 items of electric equipment important to safety inside the reactor containment were not qualified to post-loss of coolant accident (LOCA) submerged conditions. Specifically, valve limit switches and associated pigtails, Rosemount transmitters and associated electrical connectors, and certain Rockbestos cables were not qualified for post-LOCA submergence in that there were no documents in Maine Yankee's environmental qualification (EQ) file to demonstrate qualification of the items by testing or combination of testing and analysis. For example, all four narrow range channels and one wide range channel for level indication for each of the three steam generators could have been unavailable due to submergence when the containment was flooded post-LOCA. Lack of steam generator level indication could have hampered performance of operator actions for accident mitigation.

B. Contrary to the above, as of March 11, 1997, two primary component cooling water pump motors and two secondary component cooling water pump motors were not environmentally qualified for a post-high energy line break (HELB) harsh environment in the turbine building. Specifically, there were no documents in the Maine Yankee EQ file to demonstrate that the PCC and SCC pump motors were qualified for the post-HELB harsh environment by testing or combination of testing and analysis. These pumps supply cooling water to safety related components such as the emergency diesel generators.

These violations in Section II represent a Severity Level III problem (Supplement I). Civil Penalty - $100,000

III. VIOLATION ASSOCIATED WITH NEGATIVE CONTROL ROOM PRESSURE

Technical Specification 3.25.B.2, "Control Room Ventilation System (CRVS)," requires two trains of control room ventilation to be operable whenever the reactor is critical. Maine Yankee Surveillance Procedure 3.17.5, "Surveillance Testing of Tech Spec Charcoal and HEPA Filters," step 5.3.3 and Attachment A require a positive pressure within the control room (CR) during testing of the CR breathing air system (a subsystem of the CRVS). TS 3.0.B.1, "Limiting Conditions for Operations," prohibits entry into a higher operating condition if a Limiting Condition for Operation (LCO) for the higher operating condition is not met.

10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requires, in part, that measures shall be established to assure that conditions adverse to quality are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition.

Contrary to the above, on January 11, 1996, the reactor was made critical and remained critical until the plant was shutdown on July 19, 1996, under conditions when the LCO for CRVS was not met. Specifically, during testing of the 'A' train of the CR breathing air system on October 31, 1995, in accordance with Surveillance Procedure 3.17.5, pressure in the CR was slightly negative. These test results indicated that the 'A' train of CRVS was not operable, a significant condition adverse to quality. Maine Yankee did not take measures to assure that the cause of this condition was determined and did not take corrective actions to preclude repetition. No action was taken to restore operability of the 'A' train of CRVS prior to making the reactor critical on January 11, 1996.

This is a Severity Level III violation (Supplement I).
Civil Penalty - $50,000.

IV. VIOLATION ASSOCIATED WITH CONTAINMENT SPRAY BUILDING VENTILATION

10 CFR Part 50, Appendix B, Criterion III, "Design Control," requires, in part, that measures be established to assure that applicable regulatory requirements and design basis for safety related structures, systems, and components are correctly translated into specifications, drawings, and procedures.

10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requires, in part, that measures shall be established to assure that conditions adverse to quality are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition.

Contrary to the above, until August 3, 1996, the design basis for the low pressure safety injection (LPSI) and containment spray pumps was not correctly translated into design specifications in that a single failure could cause both trains of engineered safeguards pumps to be inoperable. Specifically, a loss of nonsafety-related instrument air could cause the air operated dampers (VP-A-56 and VP-A-57) in the CSB fans' ducts to fail shut, rendering the fans (FN 44A and 44B) incapable of performing their safety function of providing ventilation to the LPSI and containment spray pumps and heat exchangers area (i.e., by removing more than 10,000 cfm of air as specified in the Maine Yankee Final Safety Analysis Report (FSAR), Section 9.13.2.3) in the containment spray building. Without adequate ventilation, the LPSI and containment spray pump motors could fail due to overheating. Further, this significant condition adverse to quality was identified during a ventilation system review by engineering in 1991 and was not corrected until August 3, 1996.

This is a Severity Level III violation (Supplement I).
Civil Penalty - $50,000.

V. VIOLATIONS RELATED TO INADEQUATE SAFETY REVIEW

A. 10 CFR 50.59, "Changes, tests and experiments," permits the licensee, in part, to make changes in the facility and procedures as described in the safety analysis report without prior Commission approval provided the change does not involve an USQ. The licensee shall maintain records of changes in the facility and those records must include a written safety evaluation which provides the bases for the determination that the change does not involve an USQ.

include def. of USQ - malfunction of a different type...

1. Contrary to the above, in May 1992, Maine Yankee made a change to procedures as described in the FSAR that involved an USQ without prior Commission approval due to an inadequate safety evaluation. Specifically, Maine Yankee established procedure 1-22-2, "AC and DC Vital Bus Operation," which allowed cross connecting redundant 125 Vdc vital buses for up to 72 hours during plant operation. This was a change from FSAR Appendix A, Criterion 39, "Emergency Power for ESFs," which provides, in part, that the alternate power systems be provided and designed with adequate independence and redundancy to permit the functioning required of the ESFs and, as a minimum, that the onsite power system shall independently provide required capacity assuming a single failure. With the 125 Vdc buses cross connected, all 125 Vdc power to the ESFs could have been lost due to a single failure. Such a situation involves a USQ. As of August 30, 1996, the safety evaluation performed for this procedure change was inadequate in that it failed to identify this USQ.

2. Contrary to the above, Maine Yankee made the following changes to the facility as described in the final safety analysis report (FSAR) without performing a written safety evaluation for these changes to provide the basis for the determination that the changes did not involve an USQ, each of which constitutes an individual violation:

   a. In January 1996, Maine Yankee restricted the maximum service water (SW) operating temperatures to 70.2 oF for component cooling water (CCW) heat exchangers E-4B and E-5A, and 78.5 oF for CCW heat exchangers E-4A and E-5B to support design basis post-LOCA condition heat removal capability. This was a change from FSAR Section 9.4.1 which assumed SW inlet temperatures of 80 oF for E-4B and E-5A, and 90 oF for E-4A and B-5B. As of August 30, 1996, no safety evaluation had been performed for the change in SW operating temperatures.

   b. On February 21, 1997, Maine Yankee changed the layout within the protected area by installing and filling a 1000 gallon propane tank contrary to FSAR, Section 1.3, "Plant Description Summary." This addition had the potential to damage the circulating water

(CW) pumphouse if it exploded, and could negatively affect both trains of the SW system since the SW pumps are located in the CW pumphouse. As of March 5, 1997, no safety evaluation had been performed for the propane tank.

c. On March 11, 1997, a drain hose was temporarily installed on a spent fuel pool pump suction pipe which was contrary to the configuration of the spent fuel pool cooling system as shown in plant drawings and the FSAR, Section 9.8, "Fuel Pool Cooling System." As of March 15, 1997, no safety evaluation had been performed for this change in the configuration of the spent fuel pool cooling

d. As of August 30, 1996, no safety evaluation had been performed for approximately 89 equipment and procedure changes that were made to equipment and procedures described in the FSAR. These changes were identified by Maine Yankee as a result of an initiative to upgrade the FSAR and are listed in the "Final Safety Analysis Report (Revision 13) Maine Yankee FSAR Update (MFU) Status Report."

B. 10 CFR 50.71(e) requires the licensee to update the FSAR to assure that the information included in the FSAR contains the latest material developed. Updates must be filed annually or 6 months after each refueling outage. The updates must reflect all changes made in the facility or procedures as described in the FSAR up to a maximum of 6 months prior to the date of filing.

Contrary to the above, as of August 1996, the FSAR was not updated to reflect 27 changes made to the facility as a result of Engineering Design Change Requests and Plant Design Change Requests that were implemented between 1980 and August 1996. These changes were identified by Maine Yankee as a result of an initiative to upgrade the FSAR and are listed in the "Final Safety Analysis Report (Revision 13) Maine Yankee FSAR Update (MFU) Status Report."

These violations in Section V represent a Severity Level III problem (Supplement I). Civil Penalty - $50,000.

VI. VIOLATIONS ASSOCIATED WITH INADEQUATE CORRECTIVE ACTIONS

10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requires that measures shall be established to assure that conditions adverse to quality are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition.

A. Contrary to the above, between 1994 and 1996, actions to determine the cause and preclude repetition of icing and clogging of the Containment Spray Building (CSB) HVAC unit (HV-7), a significant condition adverse to quality, were inadequate. Specifically, the clogging occurred at least three times during that period, and even though corrective actions were taken, they were not effective in precluding repetition of the adverse condition. The clogging of the HVAC unit caused the CSB ventilation system (a support system for the LPSI and containment spray systems) to be inoperable, thereby potentially rendering both trains of LPSI and containment spray systems inoperable.

B. Contrary to the above, as of August 30, 1996, actions to determine the cause and preclude repetition of Auxiliary Feedwater (AFW) control system failures, a significant condition adverse to quality, were inadequate. Specifically, repetitive problems between 1992 and 1996 resulted in degraded reliability for the AFW pump to respond to a start/run demand. Even though corrective actions were taken, they did not preclude repetition of the control system problems.

C. Contrary to the above, as of April 1996, a design deficiency, which was a condition adverse to quality, involving the plant being outside of its design basis for a turbine hall flood, had not been promptly corrected. Specifically, during the Service Water System Operational Performance Inspection in 1994, Maine Yankee identified that the plant was outside of the design basis for a turbine hall flood in that during a design basis flood in the turbine building, safety related equipment in the control room, the DG room, and the turbine building would be rendered inoperable.

D. Contrary to the above, from December 20, 1996 until February 21, 1997, Maine Yankee did not promptly establish compensatory corrective actions regarding an identified condition adverse to quality that would challenge the operability of the service water system. Specifically, in a ventilation system assessment report, dated December 20, 1996, Maine Yankee identified that a loss of ventilation in the circulating water pumphouse during periods of extreme cold temperatures, could create potentially flooding conditions for service water system components. Frozen water in stagnant lines could restrict flow to the service water pump bearings and gland cooling or create the potential for a line break. Compensatory actions to prevent freezing in the circulating water pump house were not taken until February 21, 1997.

These violations in Section VI represent a Severity Level III problem (Supplement I). Civil Penalty - $50,000.

VII. VIOLATIONS NOT ASSESSED A CIVIL PENALTY

A. Technical Specification (TS) 5.8.2.a requires, in part, that written procedures, as recommended in Appendix A of Regulatory Guide 1.33, (Rev. 2), February 1978, shall be established and implemented.

Regulatory Guide 1.33, Appendix A, section 1, "Administrative Procedures," states, in part, that the maintenance of minimum shift complement; log entries; and authorities and responsibilities for safe operation and shutdown should be covered by written procedures.

1. Contrary to the above, as of August 30, 1996, Maine Yankee had not established procedural requirements, such that, in the event of a fire coincident with a medical emergency, the minimum control room staffing required by TS Section 5.2.2/Table 5.2-1, would be satisfied. Specifically, only two Senior Reactor Operators (SROs) were required to be on duty. As a result, there would be no SRO in the control room, as required, if the two SROs on duty had to respond to a fire and a medical emergency concurrently.

This is a Severity Level IV violation (Supplement 1).

2. Maine Yankee administrative procedure No. 1-200-10, "Conduct of Operations", section 4.13, "Operability Assessment," specifies that if there is not a reasonable expectation that the equipment is operable, then the equipment shall be declared inoperable. Section 4.13 also specifies that an operability determination must assess the ability of the equipment to perform its intended safety action in the accident environment it would be subjected to when it would be called upon to do so and that tests or partial tests should be used for completing operability assessments.

   Contrary to the above, on August 17, 1996, administrative procedure No. 1-200-10 was not implemented in that the Operations Manager issued a memorandum that stated that Technical Specification testing discrepancies did not render the HPSI and containment spray swing pumps inoperable. This was contrary to the requirements of procedure 1-200-10 in that without performance of the testing that verifies that the pumps would perform their intended safety action when called upon, there was no reasonable assurance that the pumps were operable.

This is a Severity Level IV violation (Supplement 1).

B. Regulatory Guide 1.33, Appendix A, section 9, "Procedures for Performing Maintenance," states, in part, that maintenance that can affect the performance of safety-related equipment should be performed in accordance with written procedures or documented instructions; that preventive maintenance schedules should be developed to specify inspection or replacement of parts that have a specific lifetime; and that general procedures for the control of maintenance should include the method for obtaining permission and clearance for work.

1. Maine Yankee maintenance procedure 5-9-3, "Maintenance of Emergency and Auxiliary Feedwater Pumps," Rev. 4, section 6.3.11 specifies the inspection of parts to determine if they are suitable for reuse. Maintenance procedure 5-9-3, section 6.3.12 and preventive maintenance (PM) card, M-18-3X-J, "P-25A Emergency Feedwater (EFW) Pump and Motor," specify performance of a liquid penetrant or magnetic particle examination of the cast iron diffuser assembly.

   Contrary to the above, during the 1995 overhaul of the EFW pump P-25A, maintenance procedure 5-9-3 and PM card M-18-3X-J were not implemented in that no liquid penetrant or magnetic particle examinations were performed prior to reuse of the cast iron diffuser assembly.

This is a Severity Level IV violation (Supplement 1).

2. Maine Yankee maintenance procedure 0-16-3, "Work Order Process," Rev. 10, Attachment A, section I.A specifies that work performed on safety class equipment must be performed in accordance with procedures that provide specific information for the intended actions.

   Contrary to the above, as of August 7, 1996 Maine Yankee failed to establish procedures that provided specific instructions to reinstall fastener lock wire and, as a result lock wire was not reinstalled after maintenance was performed on the following safety class equipment: Reactor coolant system loop No. 3 stop valve's motor operated valve actuator mounting fasteners and In-core instrumentation seal housings

This is a Severity Level IV violation (Supplement 1).

3. Maintenance procedure 0-16-3, sections 6.5 and 6.6 specify that, if necessary, equipment shall be tagged out prior to commencing work and that maintenance governed by this procedure shall not commence until the Work Order has received all required reviews and approvals. Work Order No. 94-02278-01 for replacement of a pipe support specified that a white tagging order was required for service water pump P-29C to be out of service.

   Contrary to the above, on August 13, 1996, procedure 0-16-3 was not implemented in that maintenance personnel removed a seismically qualified pipe support on a seal water line for service water pump P-29C without a white tagging order being issued to tag the pump out of service. Removal of the existing pipe support caused the pump to be inoperable and; therefore, out of service.

This is a Severity Level IV violation (Supplement 1).

Pursuant to the provisions of 10 CFR .201, Maine Yankee Atomic Power Company (Licensee) is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice of Violation and Proposed Imposition of Civil Penalties (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, and if denied, the reasons why, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalties by letter addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, money order, or electronic transfer payable to the Treasurer of the United States in the cumulative amount of the civil penalties proposed above, or may protest imposition of the civil penalties, in whole or in part, by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the Licensee fail to answer within the time specified, an order imposing the civil penalties will be issued. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalties, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violations listed in this Notice, in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalties should not be imposed. In addition to protesting the civil penalties, in whole or in part, such answer may request remission or mitigation of the penalties.

In requesting mitigation of the proposed penalties, the factors addressed in Section VI.B.2 of the Enforcement Policy should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalties.

Upon failure to pay any civil penalties due which subsequently has been determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalties, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234(c) of the Act, 42 U.S.C. 2282c.

The response noted above (Reply to Notice of Violation, letter with payment of civil penalties, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region I, and a copy to the NRC Resident Inspector at the facility that is the subject of this Notice.

Because your response will be placed in the NRC Public Document Room (PDR), to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction. However, if you find it necessary to include such information, you should clearly indicate the specific information that you desire not to be placed in the PDR, and provide the legal basis to support your request for withholding the information from the public.

Dated at Ring of Prussia, Pennsylvania
this day of 1998