U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Docket/Report: 50-443/90-24 **License: NPF-86**

Licensee: Public Service Company of New Hampshire, New Hampshire Yankee (NHY) Division

Facility: Seabrook Station, Seabrook, New Hampshire

Dates: November 16, 1990 to January 3, 1991

Inspectors: N. Dudley, Senior Resident Inspector
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Approved by: Ebe C McCabe Jr 11/16/91
Ebe C. McCabe, Chief, Reactor Projects Section 3B Date

OVERVIEW

Operations: Operator response to a loss of both heater drain pumps was excellent. Appropriate actions were taken to correct errors in piping and instrumentation drawings and a heat trace operating procedure.

Radiation Controls: Adequate control of radiation and contaminated areas was evident.

Maintenance/Surveillance: Activities were controlled in accordance with procedures. The failure to retain documentation of Station Manager approval of deviations from overtime guidelines was evaluated as an acceptably corrected item.

Security: Response to an unlocked safeguards cabinet was thorough. The permanent barrier between Unit 1 and Unit 2 was completed.

Emergency Preparedness: The graded emergency drill on December 12, 1990 was evaluated by the Federal Emergency Management Agency as excellent.

Technical Support: Commercial grade dedication of a piston for the actuator to the 'A' train steam supply valve to the turbine driven emergency feedwater pump was accomplished in conformance with procedural requirements.

Safety Assessment/Quality Verification: The licensee identified, and initiated an investigation of, missing radiographs of a construction weld. Appropriate initial actions were taken to address a 10 CFR 21 notification on polar crane trolley bolt adequacy.

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DETAILS

1.0 Summary of Activities

1.1 NRC Activities

Two resident inspectors were assigned. The 182 inspection hours included 34 backshift hours, of which 8 were deep backshift hours.

An NRC team evaluated New Hampshire Yankee's performance during a Federal Emergency Management Agency graded emergency exercise conducted on December 13. The results of the evaluation will be recorded in Inspection Report 50-443/90-85.

On December 14, the Regional Director of the Division of Reactor Projects toured the plant and met with plant management.

1.2 Plant Activities

At the beginning of the inspection, the plant was in Operational Mode 5, Cold Shutdown. After repairing a containment isolation valve for the steam supply to the turbine driven emergency feedwater pump, the reactor was taken critical on November 22. Reactor power reached 100% on November 24 and remained above 95% throughout the inspection.

2.0 Operations (42700, 71707, 71710, 90712, 92702, 93702)

2.1 Plant Tours

The inspector conducted daily control room tours which included reviews of operator log books, Technical Specification action statement tracking logs, tagout logs, and night orders. The number of open tagouts issued before 1990 was reduced by 50% over the last three months due to management's emphasis. A review of safety analyses for temporary modifications was performed. Assessments were made of Technical Specification action statements in effect, control room staffing, management oversight, operator awareness of plant conditions and alarms, and operator responses to abnormal events. No unacceptable conditions were noted.

On the inspector's plant tours, no equipment or structural problems were identified. Minor discrepancies were turned over to the licensee and resolved.

2.2 Plant Events

On December 20, 1990, a sight glass on the 26A feedwater heater was returned to service, resulting in tripping both heater drain pumps. The restoration of the sight glass caused condensation in the feedwater heater level gauge tree and actuation of the High-High Level Alarm for the feedwater heater. That actuation caused the reheater drain tank normal level

control valves to shut, reducing flow to the heater drain tank. The heater drain tank level decreased and caused a trip of both heater drain pumps. The main feedwater pumps automatically increased speed and the operators reduced power to 95%.

The inspector observed the operators' response to the transient and reviewed the transient with operations and technical support management and concluded that the operators performed in an excellent manner. Power was reduced expeditiously and normal feedwater heater alignment was restored in accordance with plant procedures. The operations decision to deenergize the Feedwater Heater 26 extraction steam isolation valve prior to sight glass restoration also mitigated the severity of the transient. The details of the transient were evaluated by the licensee and training was provided to the operating crews.

Due to the identified condensation problems in restoring sight glasses, New Hampshire Yankee postponed future replacements of the sight glasses, which provide local, redundant level indications, until the feedwater heaters can be taken out of service.

The inspector concluded that plant design prevented a reactor trip on the loss of both heater drain pumps and that operator response effectively restored normal conditions.

2.3 Engineering Safety Feature System Walkdown

The inspector conducted a walkdown of the condensate storage tank and the emergency feedwater system to verify proper system alignment and the accuracy of the as-built piping and instrumentation drawings (P&IDs). The system lineup was correct. However, P&ID 20426 annotated the position of a normally locked-open valve as "L.C." (locked closed). Similar errors including this error were previously identified by New Hampshire Yankee Quality Assurance; completion of corrective actions was scheduled for April 30, 1991.

The inspector verified that Orifice Plates RO-4370, 4371, 4372 and 4373 in the emergency feedwater pumps recirculation lines were installed in the proper direction. The inspector concluded the system was properly aligned.

2.4 Cold Weather Preparations

The inspector held discussions with operations and technical support personnel concerning the responsibility for determining the effect of inoperable heat traced circuits on system operability. All emergency core cooling systems including the refueling water storage tank are in heated buildings that are temperature controlled and are not heat traced. Some waste handling systems in the waste handling building and outside fluid lines are heat traced.

Identification of inoperable heat trace circuits is the responsibility of the auxiliary operators, who initiate work requests for system repairs. The shift supervisor approves the work requests, which are assigned to the heat tracing system engineer who is responsible for determining the effect of the related system's operability.

During December a temporary hose to the west pipe chase sump froze when the breaker to the temporary heat trace circuit for the hose failed open and was not immediately identified. Also, a portion of a main steam drain line froze when the steam trap in the drain line was isolated. Even though no damage occurred, the inspector concluded that continued attention to potential freeze damage is warranted.

The inspector determined through discussions with the heat trace system engineer that the identified inoperable heat trace systems did not affect system operability during power operation. Some inoperable heat trace circuits are required to be repaired prior to entering Mode 5, Cold Shutdown, since these circuits provide freeze protection only during plant shutdown. The inspector concluded that adequate controls exist to identify system inoperabilities caused by failed heat trace circuits.

The inspector determined that Procedure ON 1059.01, "Heat Trace Operations," does not reflect as-built plant heat trace circuits. The Operations Department initiated a revision to the procedure. The inspector verified that the revision, which includes review of engineering prints and plant walkdowns, was in progress and scheduled for issuance by March 31, 1991.

No unacceptable conditions were identified.

2.5 Fire Brigade Training

Due to a concern raised in NRC Inspection Report 50-443/90-11, the inspector reviewed the Fire Brigade Continuing Training Program Description approved on September 17, 1990. That Program Description detailed the Annual Hands-On Brigade Training schedule for 1990. Acceptance criteria for passing written exams were defined as better than 80% overall with a minimum lesson grade of 70%. The required documentation of counseling of an individual who fails an examination was defined. The inspector noted that the Program Description will require annual revision and approval for the yearly schedule for hands-on training. The inspector concluded that the Program Description acceptably addressed the previous NRC concerns.

3.0 Radiological Controls (71707)

The inspector reviewed radiation work permits, posted maps of radiological areas, and postings in the primary auxiliary buildings. Also, the inspector toured the radiac calibration facility and verified that locked high radiation areas were properly controlled. The inspector concluded that the radiological controls program was being properly implemented in these areas.

4.0 Maintenance and Surveillance (37828, 61726, 62703)

4.1 Maintenance

The inspector determined that maintenance activities were conducted in a controlled manner in accordance with procedures. No personnel safety issues or poor work practices were noted. Details of specific maintenance activities follow.

Main Steam Valve: The inspector observed activities conducted on November 21 related to the rework of MS-V-127, the 'A' train steam supply valve to the Emergency Feedwater (EFW) System. The valve had malfunctioned during surveillance on November 20. Preliminary investigation revealed that the piston in the air operator was cracked. The pneumatic actuator was subsequently removed from the valve and transported to the shop for rework, replacement, or repair, as appropriate. A similar pneumatic actuator was drawn from stores and evaluated for functional equivalence and replacement-in-kind. Due to dimensional differences, a decision was made to rework the original actuator using replacement parts from the actuator drawn from stores. A commercial grade dedication was performed on the replacement piston, which required minor machining to fit into the actuator. The actuator was reassembled and reinstalled on the valve. After adjustment and testing of the valve, EFW surveillance testing was satisfactorily completed.

Underground Electrical Vaults: Modifications performed to the safety-related electrical manholes under Design Coordination Request (DCR) 90-0012 have been completed. A 4.6" diameter hole was bored through the manhole plug for each vault containing safety-related cables. This will provide ready access for inspection and any necessary dewatering. The hole was sealed by use of a Bisco Fire Plug, an expandable rubber stopper capable of withstanding hydrostatic pressures in excess of 15 psig (~33 ft. standing head of water). The joints in the roof slab, and between the roof slab and walls, have been resealed. In addition, where the vaults are not surrounded by concrete slabs or asphalt, the joint between the roof slab and wall was excavated, recaulked and covered by a nonpermeable membrane to improve leak tightness. The manhole plug was chosen as the best place for the inspection/dewatering port since it is over an area free of cables and structures in all of the vaults (to allow personnel access). The port was located so as to avoid interference from the permanently installed access ladders.

The modification design called for a four-inch diameter core bore in the manway plugs, resulting in a 4.6" hole diameter rather than the intended 4" hole. (A four-inch concrete core bore removes a four-inch diameter cylinder from concrete.) This necessitated the procurement and installation of larger plugs for the holes. The Maintenance Working Foreman and the Nuclear Quality Group inspector had questioned the bore size; however, Engineering personnel had insisted that a 4" core bore was correct. Larger plugs were procured and installed. Better engineering review could have prevented this discrepancy. However, no unacceptable conditions resulted.

Raychem Seals: The inspector observed the replacement of a flexible conduit and the installation of Raychem seals on the connections for DG-P-122a (Diesel Generator 'A' Auxiliary Coolant Pump). The work was performed under Work Request 90WR001378. The Raychem seals were installed in conformance with Procedure MS0514.09, "Low Voltage Raychem Installation," and the instructions included in the kits. Appropriate inspection by QC personnel was performed. The technicians doing the work appeared to be knowledgeable and well-trained, and identified an enhancement to the procedure which would make it easier to use. Overall, the work was performed well and appropriate procedures were properly utilized.

Diesel Generator 'B' Starting Air Compressor: The inspector observed troubleshooting and repair of 1-DG-C-2B (Diesel Generator 'B' Starting Air Compressor). The compressor had been tripping on thermal overload while running to charge the air start flasks for the diesel generator. To maintain the air start system in a state of readiness while working on the compressor, work Request 90W006310 was generated to recharge the starting air flasks from a bank of high pressure bottles located outside the building. Work Request 91W000002 was generated to troubleshoot and repair the compressor. Troubleshooting included taking running currents on the motor and checking the compressor air paths for backleakage or blockages. It was determined that backleakage existed from the third stage to the second stage. The third stage suction valve was reworked, correcting the problem.

During the post-repair run, motor currents were still high but within the service factor limitations. NHY Technical Support plans to determine long term effects and analyze available historical data. The inspector determined that appropriate actions were taken to return the compressor to service and that all work was properly controlled and documented.

4.2 Surveillance

The inspector evaluated several surveillance activities. Problems encountered were resolved by the technicians involving an appropriate level of management and requesting necessary engineering support. The inspector concluded that these surveillances were effectively performed.

The inspector observed testing of the emergency feedwater system under OX1436.02, "Turbine Driven Emergency Feedwater Pump Monthly, Quarterly, and 18-Month Surveillance Test," which was conducted for the plant heatup. Difficulties were experienced reopening MS-V-127, the 'A' train steam supply valve, after it satisfactorily closed. During subsequent steps in the procedure, the valve again stuck closed and finally stuck in an intermediate position during stroke time testing. After repairs to the pneumatic actuator (see Section 4.1, "Maintenance"), the valve stroked properly in both the open and closed directions on November 22.

The inspector observed OX1408.06, "Controlled Leakage Monthly Surveillance." All Reactor Coolant Pump Seal Injection and Seal Leakoff flows were set to within acceptable ranges specified in the procedure. No deficiencies were noted.

Testing was conducted on December 17, 1990 on 1-EDE-B-1a under MX0506.03, "Quarterly Battery Surveillance," following the performance of a discharge test. While taking specific gravity readings, the technicians noted erratic indications between cells and suspected that the cause was stratification of the electrolyte. They consulted with the system engineer before exercising the option in the procedure which allows taking samples at three levels in each cell and averaging the results. These samples confirmed the existence of stratification. The inspector noted that appropriate safety precautions were taken and good work practices were in use. The inspector concluded that the technicians exhibited appropriate performance in that they

recognized anomalies in the data, analyzed and diagnosed the problem and consulted with the system engineer before proceeding. The additional work ensured that data indicating actual battery condition were collected.

The inspector observed the performance of IX1670.910, "X-6700 Control Room Air Intake Seismic Monitor Channel Calibration." The technicians followed procedures and involved their supervisor when they encountered difficulty in acquiring meaningful frequency data due to electronic noise. The technicians recognized incorrect data entries when questioned by the inspector and submitted a procedure revision to explicitly require recording as-left data for one valve.

No unacceptable conditions were identified.

4.3 Management of Overtime: Unresolved Item 50-443/90-23-01 (Closed)

Technical Specification 6.2.2.e requires that administrative procedures limit working hours of staff who perform safety-related functions. The Station Management Manual (SSMM) provides detailed guidance for limiting staff working hours and does not differentiate between safety-related and non-safety-related functions. The inspector identified several examples in the July and August, 1990 time period where maintenance workers exceeded the overtime guidelines of SSMM Chapter 2, "Policies." In eight cases the required documentation of the Station Manager's approve of deviations from the guidelines was unavailable. Review by New Hampshire Yankee determined that one of these cases involved overtime work on safety-related equipment.

The inspector reviewed the time sheets of maintenance workers for the week of October 27, 1990 and questioned six cases where workers were paid for greater than 72 hours in a seven day period. This appeared to exceed overtime guidelines. Review of the time cards and protected area access logs determined that the actual time worked in each case met the guidelines of the SSMM.

The inspector determined through discussions with plant management that workers and first line supervisors are responsible for requesting Plant Manager's approval for deviations from overtime guidelines. A revision of SSMM Chapter 4, "Administrative Activities," Section 4.0, "Authority For Extended Work Hours," was issued on December 3, 1990. The revision required that the Plant Manager's written approval be filed by the Records Department and that a copy of the approval be attached to the employee's time sheet. The inspector found this acceptable.

In this case, the inspector identified eight examples of violations of the SSMM and one example of a violation of Technical Specification 6.2.2.(e). However, the inspector also concluded that these were documentation retention discrepancies of minor safety significance. New Hampshire Yankee took prompt corrective action and no additional violations were identified. Therefore,

no violation is being cited because the criteria specified in Section V.A. of the Enforcement Policy (Severity Level V with appropriate correction) are satisfied. This item is closed (NON 90-23-01).

5.0 Security (71707, 81078)

5.1 Plant Tours

Installation of the permanent barrier between Unit 1 and Unit 2 was completed. The inspector conducted an independent walkdown of the barrier, discussed the installation with security guards in the Central Alarm Station and observed testing of intrusion detection devices. The inspector concluded that compensatory measures taken during the transition were excellent.

During a yard tour, the inspector questioned operability of the intrusion detection system. The concerns were satisfactorily resolved by a security supervisor and the system engineer and the inspector independently verified the operability of the intrusion detection system.

5.2 Unlocked Safeguards Cabinet

The inspector reviewed the actions taken by security for an unlocked, unattended safeguards file cabinet in the general office building (GOB). The event was considered logable. The lock to the file cabinet was found on top of the cabinet by a security guard at 8:30 p.m. The file cabinet was guarded until an inventory was completed. No material was missing. The GOB is a locked and alarmed building. Persons signing into the GOB that evening were interviewed. None were cognizant of the open file cabinet.

The proximate cause of this event was the absence of an individual who routinely checked the file cabinet locked. The responsibility for verifying the file cabinet locked was assigned to individuals by name in a memorandum dated December 19, 1990. The inspector concluded that no safeguards material was compromised and that the licensee's evaluation was thorough. Adequate steps were taken to prevent recurrence of the event.

10 CFR 73.21(d)(2) requires safeguards information to be stored in a locked security storage container. NHY's Record Management Manual, Chapter 3, "Document Receipt, Processing, and Control," Section 6.4, "Physical Protection of Safeguards Information," requires that unattended safeguards information in a controlled access area be securely stored. The inspector concluded that the violation of this requirement was licensee-identified, not recurring and responded to aggressively. The violation is not being cited because the criteria specified in Section V.A of the Enforcement Policy (Severity IV, acceptably corrected) was satisfied (NON 90-24-01).

6.0 **Emergency Preparedness** (71707)

On November 27, 1990, an emergency drill was conducted in preparation for the graded exercise. Onsite organizations, the Emergency Operating Center and State of New Hampshire representatives participated.

On December 12, 1990, a graded emergency exercise was conducted by the NHY Emergency Preparedness Department and was evaluated by the NRC and the Federal Emergency Management Agency (FEMA). All onsite and offsite emergency organizations, including New Hampshire state and local organizations, participated.

During a public meeting on December 17, 1990, performance by all organizations was stated by FEMA as being excellent. Some minor deficiencies in several specific organizations were noted. Evaluation details will be presented in a final FEMA report.

7.0 **Technical Support** (37828, 92701)

The actuator for MS-V-127 was reworked under MMOD 90-671. The piston in the pneumatic actuator had cracked and bound the valve in mid-position. A complete replacement actuator was available in stores. The replacement actuator had been procured from the valve manufacturer (Velan) in early 1989. The actuator was supplied by Velan with a Certificate of Compliance stating that it was "interchangeable with items originally supplied on valves," was equivalent or superior in quality to the original actuators and was in compliance with both the purchase order and the original valve specification.

Due to minor changes in the configuration materials and dimensions over the years, NHY made a determination that this did not constitute a "replacement-in-kind." The original actuator was rebuilt using the piston from the replacement. Due to the slightly different configuration of the new piston rod seal (O-ring) and a smaller relief cut for the spring seating surface, a modification of the new piston was made. Since the new piston was geometrically different, seismic qualification of the actuator was reviewed. All stresses were determined to be within design limits.

The new piston was machined to provide adequate clearance in the barrel of the old actuator and was installed. The material properties of the new piston, piston packing and piston rod O-ring were determined to exceed the original design specifications and the materials were verified to be the same as the originals. The materials were also evaluated and found to be acceptable for the environmental conditions in the pipe chase. Final acceptability was determined by successful stroke testing in conformance with OX1456.81, "Operability Testing of ISF Valves."

The inspector observed work on the actuator and reviewed the following documentation:

MMOD 90-671, Modifications to MS-V-127 Actuator Internals

Cannibalization Request for CID 56251106, dated November 21, 1990

Work Request 90W005707

Procedure PM3.5, Dedication of Commercial Grade Items

The inspector concluded that a proper Commercial Grade Dedication was performed on the replacement piston in conformance with procedural requirements.

8.0 **Safety Assessment/Quality Verification** (40500, 92700)

8.1 **10 CFR 21: Polar Crane Bolt Inspection**

The inspector reviewed letters from Whiting Corporation dated September 12, 1990 and October 11, 1990 concerning a 10 CFR 21 notification of the potential for overstressing bolts on the containment polar crane trolley which they manufactured. An analysis indicated that A-307 bolts could be overstressed resulting in metal fatigue and failure which could result in dropping loads from the trolley. The generic drawings indicated use of A-307 bolts for the trolley's connection points while the bill of material correctly required use of A-325 bolts, which are not susceptible to fatigue failures.

NHY conducted partial inspections of the Unit 1 and Unit 2 polar cranes and verified proper bolts were installed. NHY determined through review of the bill of material shipment records that the proper bolts had been issued. Through discussions with Whiting Corporation, NHY determined that the overstress conditions are only present when the trolley is carrying a load. As a result of NHY reviews, the Unit 1 polar crane was tagged out until a 100% inspection could be completed during the first refueling outage per work request 90W005407.

The inspector determined that adequate actions were taken to address the 10 CFR 21 notification. This 10 CFR 21 notification remains unresolved pending the results of the 100% inspection. (P21 90-88-03)

8.2 **Missing Radiographic Record**

On December 27, 1990, the NRC senior resident inspector was informed by the licensee that radiographic films for one specific weld could not be found during a search of Chemical Volume and Control System (CS) welding records. The missing radiographs were related to Field Weld CS-328-F0204, located in a three-inch pipe line in the Primary Auxiliary Building. This piping is the common line for the seal injection return flow from the reactor coolant pumps and is categorized as ASME III, Class 2 piping, for which radiography is the specified final code acceptable method of nondestructive examination (NDE).

The licensee's search of the CS system welding records was conducted in response to a Congressional staff request for information and documents for approximately 70 CS field welds. Of the record sets being compiled, the only record problem identified to the NRC inspector was the missing radiographs for Field Weld CS-328-F0204.

The inspector was informed by licensee QA, engineering and welding personnel that the licensee believes that the subject radiographs were never turned over by the piping contractor, Pullman-Higgins, to Yankee Atomic Electric Company (YAEC) QA/NDE personnel for review and final vault storage. This position is supported by the microfilmed Radiographic Inspection Report (RIR) for this field weld. That RIR indicates that the radiograph was shot and accepted by Pullman-Higgins Level III review on August 17, 1982 and reviewed and approved by the Authorized Nuclear Inspector (ANI) on August 23, 1982. This RIR record provides no evidence of accomplishment, for this weld, of the YAEC practice of conducting an additional QA examination of all safety-related radiographs. The final, hard-copy RIR, which would have provided evidence of a YAEC review and would have been filed with the radiograph in the records vault, was likewise missing. Additionally, the index card filing system initiated by YAEC to identify the radiographs reviewed and stored with their RIRs in the vault provided no evidence that the film for Field Weld CS-328-F0204 had been received from Pullman-Higgins.

The QA records available for this weld indicate that a final radiograph was shot and interpreted, with the results documenting weld compliance with ASME III Code, Class 2 criteria. The microfilm RIR provides evidence of weld quality and is supported both by the field weld process sheet records, which were initiated and dated by the Pullman-Higgins Level III reviewer and the ANI, and by Revision 2 of Nonconformance Report (NCR) 2128, which documents a YAEC QA engineer's verification on October 17, 1982 that the weld was acceptably repaired and re-radiogaphed. Additionally, other quality records indicate that Field Weld CS-328-F0204 was subjected to a volumetric ultrasonic testing (UT) inspection on January 31, 1986 and a liquid penetrant testing (LPT) examination on February 12, 1986. Both of these tests were conducted in accordance with ASME XI baseline inservice inspection provisions, in excess of the ASME III construction code requirements, and provided evidence of acceptable weld quality.

Therefore, while sufficient QA records are available to show weld quality in compliance with ASME code criteria, the radiographs for Field Weld CS-328-F0204, which the ASME code requires to be retained, are missing. Potential contributing factors include: (1) a piping isometric drawing (ISO CS-328-02) error which mislabeled CS Field Weld 0204 as 0209 on August 3, 1982; and (2) an earlier revision to NCR 2128 which proposed a disposition to cut out and replace Field Weld 0204 instead of repairing it. While the drawing error noted in Revision 7 was corrected in Revision 13 on December 7, 1984 and the NCR disposition to replace the weld was subsequently changed to conduct a repair, uncertainty surrounding Field Weld CS-328-F0204 during the latter part of 1982 also may have contributed to failure of Pullman-Higgins to submit the final radiographs to YAEC.

The QA documents that were turned over for review and microfilming provided evidence that a final radiograph had been shot and approved, in accordance with ASME III code requirements. The fact that the radiographs were not retained as required needs further review by the licensee to determine if it is an isolated case. Additionally, since the YAEC NDE Review Group Procedure No. 5 specified (circa 1984) YAEC review of all safety-related radiographs, the missing radiographs may represent a licensee-identified violation of a construction QA procedure.

The inspector questioned licensee engineering personnel regarding the status of any determination as to the reportability of this identified problem to the NRC and was informed that an evaluation was in process. The licensee is also considering the documentation of this issue in a corrective action report (CAR) to provide a documented determination of the cause of the problem and assessment of corrective action from a generic standpoint. Additionally, record sampling, based upon some commonality with the subject weld (e.g., a search of other similar fourth repair cycle welds) may be pursued by the licensee. Also, the need to re-radiograph Field Weld CS-328-F0204 must be addressed. Since the existing weld quality is currently not in question based upon the available QA records, re-radiography can be delayed until the next refueling outage when the piping can be drained without impacting plant operation.

The inspector had no further questions regarding the licensee's analysis of this issue to date and no concerns regarding the existing weld quality or CS system operability. However, since the licensee evaluation is still ongoing, the results of their review will require further assessment. Such issues as reportability, generic applicability, corrective action implementation and radiographic record replacement need to be addressed. Additionally, the fact that a construction QA procedure may have been violated must be assessed for significance.

Pending licensee completion of their evaluation, implementation of all planned corrective measures, and further NRC review of safety and enforcement aspects, along with the schedule for re-radiography of Field weld CS-328-F0204, this item remains unresolved (90-24-02).

8.3 Control Room Emergency Air Cleanup and Filtration Subsystem Actuation - LERs 90-024 and 90-026 (Closed)

On November 2 and 16, 1990 while performing surveillance procedures, Engineered Safety Features actuations of the Control Room Emergency Makeup Air and Filtration subsystem occurred. In both instances, all equipment functioned normally. The root cause of the actuations was determined to be personnel error involving a lack of attention to detail. Contributing causes were identified as poor location of test switch labels and failure to follow procedures. Corrective actions identified in the LERs included relocation of test switch labels, discussion of the events with operating crews and technicians, and counseling of a technician.

The inspector reviewed Station Information Report (SIR) 90-059 on the LER 90-24 event. The SIR identified additional corrective actions including changes to the surveillance procedures, development of a testing philosophy, establishment of a communications task force and reviewing the incident with all operating crews. The operating crew reviews included discussions of

limiting the number of evolutions being conducted at one time, minimizing verbal distractions of the individual performing a task, being responsible for setting the pace of an evolution and not rushing to meet a perceived deadline.

The inspector reviewed the December 6, 1990 "Station Manager's Messenger," which is an informational notice issued to the plant staff. The notice included the fact that seven personnel errors had occurred since October and stressed the need to follow operational guidelines for self-verification before taking any action.

Though discussions with licensing personnel and review of the LERs, the inspector determined that all of the corrective actions taken in response to the LER events were not included in the LERs. A subcommittee of the Station Operations Review Committee discussed and reviewed the LERs prior to their issuance. The subcommittee determined that many causes identified in the SIR did not contribute directly to the event and were not root causes. As a result, only the direct root causes and the associated corrective actions were included in the LERs. The additional corrective actions were taken to improve overall personnel performance and address potential contributing causes to the events.

The inspector concluded that good corrective actions were taken in response to the LER events and that the LERs were adequate but did not address some potential contributing causes. However, no unacceptable conditions were identified.

9.0 Meetings

The scope and findings of the inspection were discussed periodically throughout the inspection period. An oral summary of the preliminary inspection findings were provided to the plant manager and his staff at the conclusion of the inspection.

Region-based inspectors conducted the following exit meetings.

Date	Subject	Report No.	Inspector
12-14	Emergency Drill	90-85	Amato