June 26, 2000

Mr. Stephen E. Scace, Director
Nuclear Oversight and Regulatory Affairs
Northeast Nuclear Energy Company
PO Box 128
Waterford, CT 06385

SUBJECT: NRC's INSPECTION REPORT 05000336/2000-007 and 05000423/2000-007

Dear Mr. Scace:

On May 13, 2000, the NRC completed inspections at your Millstone Units 2 & 3 reactor facilities. The enclosed reports present the results of these inspections. The results were discussed on June 6, 2000, with Messrs. M. Brothers and R. Necci and other members of your staff.

These inspections were an examination of activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspections consisted of a selected examination of procedures and representative records, observations of activities, and interviews with personnel.

The NRC identified three issues, two of which were evaluated under the risk significance determination process and determined to be of very low safety significance (Green). The other issue was determined to have no color. These issues have been entered into your corrective action program and are discussed in the summary of findings and in the body of the attached inspection reports. These issues were determined to involve violations of NRC requirements. Consistent with the NRC Enforcement Policy, the violations are not cited. If you contest these noncited violations, you should provide a response within 30 days of the date of these inspection reports, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region I; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington DC 20555-0001; and the NRC Resident Inspector at the Millstone facility.

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Sincerely,

/RA/

James C. Linville, Acting Deputy Director
Division of Reactor Projects

Docket Nos.: 05000336, 05000423
License Nos.: DPR-65, NPF-49

Enclosures: (1) NRC Inspection Report 05000336/2000-007
(2) NRC Inspection Report 05000423/2000-007

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U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Docket No.:	05000336
License No.:	DPR-65
Report No.:	05000336/2000-007
Licensee:	Northeast Nuclear Energy Company
Facility:	Millstone Nuclear Power Station, Unit 2
Location:	P. O. Box 128 Waterford, CT 06385
Dates:	April 2, 2000 - May 13, 2000
Inspectors:	D. P. Beaulieu, Senior Resident Inspector, Unit 2 P. C. Cataldo, Resident Inspector, Unit 1 S. R. Jones, Resident Inspector, Unit 2 T. A. Moslak, Health Physicist, Division of Reactor Safety (DRS)
Approved by:	James Linville, Director Millstone Inspection Directorate Office of the Regional Administrator Region I

SUMMARY OF FINDINGS

Millstone Nuclear Power Station
NRC Inspection Report 05000336/2000-007

The report covers a 6-week period of resident inspection and an announced inspection by a regional health physicist. The significance of issues is indicated by their color (green, white, yellow, or red) and was determined by the Significance Determination Process in Inspection Manual Chapter 0609 (see Attachment 1 of Enclosure 2, NRC Inspection Report 05000423/2000-007)

Cornerstone: Mitigating Systems

- **Green.** With the Unit 2 reactor at 100 percent power, the on-coming Unit Supervisor identified that the previous shift had operated for a period of 25 minutes with the ”A” high pressure safety injection (HPSI) train and the “B” emergency diesel generator (EDG) inoperable for surveillance testing. The NRC concluded that the condition resulted from poor surveillance scheduling practices and inadequate operator awareness of equipment status. There were several opportunities to identify the condition, including a specific surveillance procedure verification in which an operator incorrectly initialed that the “A” HPSI train was operable. This failure to follow the procedure is being treated as a Non-Cited Violation. The NRC used the Significance Determination Process to evaluate the risk significance of this event for the loss of offsite power initiating event, which involves both the EDGs and the HPSI system as potential mitigation equipment. The NRC assumed that both the “A” HPSI train and the “B” EDG were readily recoverable. Because of the short time the condition existed, this issue was determined to be of very low risk significance. (Section 1R13)

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Report Details

SUMMARY OF UNIT 2 STATUS

The plant entered the inspection period at 100 percent power and operated at that power level until April 21, 2000, when the reactor was shut down for a planned refueling outage. The plant reached Operational Mode 6, Refueling, on April 26, 2000, and remained in that mode for refueling activities through the end of the inspection period.

1. REACTOR SAFETY
(Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity)

1R04 Equipment Alignment

a. Inspection Scope

During the period of time the B emergency diesel generator (EDG) was out of service for planned maintenance, the inspector performed a partial system alignment check of the A EDG.

b. Issues and Findings

There were no findings identified during this inspection.

1R05 Fire Protection

a. Inspection Scope

The inspector toured the “B” battery room and the “A” and “B” DC switchgear rooms to evaluate the operational status of the fire suppression systems protecting these areas, the condition of penetration seals and other fire barriers, and the control of transient combustible materials located in these areas. The inspector also reviewed the results of recent surveillance tests for the fire suppression systems to verify acceptable inventories of the fire suppression agent and adequate performance of the fire detection, alarm, and automatic ventilation isolation functions.

b. Issues and Findings

There were no findings identified during this inspection.

1R12 Maintenance Rule Implementation

a. Inspection Scope

The inspector reviewed the licensee’s implementation of the maintenance rule with respect to problems with the charging pumps that affect their reliability and availability. The review included evaluation of functional failure characterizations and performance

criteria values with respect to maintenance rule implementing procedures. In addition, the inspector compared the licensee's recent revision to the unavailability performance criteria for the charging pumps to the unavailability used in the licensee's model for managing risk related to on-line maintenance activities.

b. Issues and Findings

There were no findings identified during this inspection.

1R13 Maintenance Risk Assessment and Emergent Work Evaluation

a. Inspection Scope

The inspector reviewed on-line risk management for the rescheduling of the Train "A" high pressure safety injection (HPSI) valve surveillance testing to a time when Train "A" equipment was protected and the "B" emergency diesel generator (EDG) was inoperable for surveillance testing.

b. Issues and Findings

On April 21, 2000, with the Unit 2 reactor at 100 percent power, the on-coming Unit Supervisor identified that the previous shift had operated for a period of 25 minutes with the "A" HPSI train and the "B" EDG inoperable for surveillance testing. Technical Specification 3.0.5 specifies that, if an EDG is removed from service, the components supplied by that EDG may be considered operable as long as their redundant components are operable. The on-coming shift recognized that the configuration was a higher risk configuration and had required entry into Technical Specification 3.0.5 because the emergency power supply for the "B" HPSI train, the "B" EDG, was inoperable at the same time that the "A" HPSI train was inoperable for another reason. Since the specification allows 2 hours to correct the condition before requiring initiating action to place the plant in a mode where the affected system is not required to be operable, the required action time was not exceeded.

The inspector reviewed the licensee's scheduling activities and found that the following four opportunities had been available to identify and reschedule the work to avoid the higher risk equipment configuration described above:

(1) Since March 16, 2000, the licensee had scheduled the "A" HPSI train surveillance test during the "A" train protected week beginning April 16, 2000, which normally would preclude scheduling simultaneous activities on redundant trains.

(2) The licensee's work control process includes schedule reviews. However, the introduction of work on components in the protected train was not highlighted in the schedule. Therefore, the normal schedule reviews did not identify the resultant potential for higher-risk plant configurations caused by the scheduled overlap of the "A" HPSI train and "B" EDG surveillance activities.

(3) The control room operators reviewed and authorized the performance of surveillance SP 2604E-5, “HPSI Valve Stroke and Timing Inservice Test - Train ‘A’, “ and surveillance SP 2654D, “‘B’ Emergency DG Pre-Lube and Air-Roll,” during the shift from 7:00 p.m. on April 20, 2000, to 7:00 a.m. on April 21, 2000.

(4) When surveillance procedure SP 2619G, “AC Electrical Sources Inoperability,” was completed for the “B” EDG surveillance activity, the operators incorrectly noted that the “A” HPSI train injection valves were operable. Steps 4.2.2 and 4.2.3 of procedure SP2619G specified that operators verify equipment supplied by the operable EDG is operable, review technical specification action statements in effect for that equipment, initial a list in Form 2619G-2 adjacent to operable equipment, and review the results relative to Technical Specification 3.0.5 requirements. Log entries indicate that surveillance procedure SP2619G was completed one minute after declaring the “B” EDG inoperable and over one hour after declaring the “A” HPSI train inoperable. The failure to adequately implement procedure SP2619G is a violation of Technical Specification 6.8.1.c, which requires that procedures be established and implemented covering surveillance activities of safety-related equipment. This violation is being treated as a Non-Cited Violation, consistent with Section VI.A of the Enforcement Policy, issued on May 1, 2000 (65 FR 25368) (**NCV 05000336/2000-007-01**). The licensee entered the failure to log entry into Technical Specification 3.0.5 in their corrective action process through condition report (CR) M2-00-0927.

The inspector used the Significance Determination Process to evaluate the risk significance of this event for the loss of offsite power initiating event, which involves both the EDGs and the HPSI system as potential mitigation equipment. The inspectors assumed that both the “A” HPSI train and the “B” EDG were readily recoverable. Because of the short time the condition existed, this issue was determined to be of very low risk significance (Green).

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed Operability Determination MP2-004-00 involving piping loadings on the spent fuel pool cooling pumps exceeding vendor allowables for the thermal design temperature of 150°F. In addition, the inspectors reviewed Operability Determination MP2-014-00 involving two reactor building closed cooling water (RBCCW) relief valves, 2-RB-308 and 2-RB-330, which lifted and did not reseat during the performance of the “A” train loss of normal power test. These relief valves are in the lines to the “C” containment air recirculation cooler and the “A” high pressure safety injection seal cooler. This operability determination was limited to Mode 5 and 6.

b. Issues and Findings

There were no findings identified during this inspection.

1R17 Permanent Plant Modifications

a. Inspection Scope

The inspector reviewed Design Change Record M2-98092 that revised the design and licensing basis of the spent fuel pool cooling system to support operation of the system through the end of Cycle 13 by incorporating a revised decay heat load calculation and a revised thermal hydraulic calculation into the design basis.

b. Issues and Findings

There were no findings identified and documented during this inspection.

1R19 Post Maintenance Testing

.1 Integrated Testing after Restoration of the "A" Reactor Building Closed Cooling Water Train

a. Inspection Scope

The inspector performed an in-depth review of the problems encountered during the performance of surveillance SP 2613G "Integrated Test of Facility 1 Components," on May 7, 2000. The surveillance involves deenergizing the off-site power supply to "A" train components to verify that the "A" emergency diesel generator starts and reenergizes required loads.

Prior to the test, the entire "A" reactor building closed cooling water (RBCCW) train had been drained for maintenance and restored to service. When the "A" RBCCW pump restarted during the test, two RBCCW relief valves lifted and failed to reseat resulting in a 70 gallon loss of inventory in the 90 seconds it took for operators to isolate the leak. Operators properly secured from the test to address the relief valve issue and rescheduled surveillance SP 2613G. As discussed in section 1R15 of this report, the inspector reviewed the licensee's operability determination associated with the relief valves which addressed RBCCW operability for Modes 5 and 6 only.

b. Issues and Findings

There were no findings identified during this inspection.

.2 Emergency Diesel Generator Air Start System Testing

a. Inspection Scope

The inspector observed the preparations for, and performance of, post-maintenance and surveillance tests following maintenance and inspection activities on "B" train emergency diesel generator air start valves associated with Starting Air Tank 49D. The inspector reviewed Piping and Instrumentation Diagram 25203-26018, sheet 5, "Diesel Generator Starting Air," procedure SP 2624B, "B Emergency Diesel Generator Auxiliaries Inservice Testing," and procedure SP 2613L, "Diesel Generator Slow Start Operability Test," and verified that the post-maintenance testing, as performed, demonstrated operability of the Starting Air Tank 49D air start header check valve, 2-DG-29D, and the Starting Air Tank 49D inlet air check valve, 2-DG-35D.

b. Issues and Findings

There were no findings identified during this inspection.

1R20 Refueling and Outage

a. Inspection Scope

The inspectors reviewed the following activities related to the Unit 2 refueling outage for conformance to applicable procedural and technical specification requirements, and witnessed selected evolutions.

- outage planning and shutdown risk management
- reactor cooldown and initiation of the shutdown cooling system
- refueling operations
- shutdown risk evaluations
- first planned reduced reactor coolant system inventory operation period
- contingency planning for a planned period of reduced decay heat removal redundancy

b. Issues and Findings

There were no findings during these inspections.

1R22 Surveillance Testing

.1 High Pressure Safety Injection High Flow Inservice Test

a. Inspection Scope

The inspector observed preparation for the "A" high pressure safety injection (HPSI) train high flow testing and reviewed surveillance procedure SP 2604A-4, "'A' HPSI Pump High Flow IST, Mode 6 and Defueled," to verify that instrumentation, test methods, and acceptance criteria were consistent with requirements of Section XI of the ASME Boiler and Pressure Vessel Code. The inspectors also reviewed completed inservice test data

to verify that the "A" HPSI pump performance was acceptable relative to its design basis and the test acceptance criteria.

b. Issues and Findings

There were no findings identified during this inspection.

.2 Emergency Diesel Generator Testing

a. Inspection Scope

On April 12, 2000, the inspector observed the preparation for, and the conduct of, the B Emergency Diesel Generator Slow Start Operability Test. The inspection activities also included a review of test results to verify compliance with applicable technical specifications and equipment operability, verification that operators performed actions in accordance with applicable procedures, and verification that conditions adverse to quality were entered into the licensee's corrective action program. In addition, the inspector observed the pre-job brief to verify that operators were aware of the impact the surveillance test had on the plant.

b. Issues and Findings

There were no findings identified during this inspection.

1R23 Temporary Plant Modifications

a. Inspection Scope

The inspector reviewed design change notices DM2-03-0038-00 and DM2-02-0128-00 for restoration of the "A" and "B" feedwater regulating valves, respectively, following leak sealant repairs and installation of seal welds to stop leakage at the body-to-bonnet joint. The inspector verified that the restoration was implemented consistent with the licensee's Design Control Manual and maintained the integrity of the valves' pressure boundary.

b. Issues and Findings

There were no findings identified during this inspection.

2. RADIATION SAFETY

Occupational Radiation Safety [OS]

2OS1 Access Control to Radiologically Significant Areas

Refer to NRC Inspection Report No. 05000423/2000-007, Section 2OS1 for specific details.

4. OTHER ACTIVITIES [OA]

4OA6 Meetings, including Exit

.1 Exit Meeting Summary

The inspectors presented the inspection results to members of licensee management at the conclusion of the inspection. The licensee acknowledged the findings presented.

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed During this Inspection

NCV 05000336/2000-007-01	Failure to identify that the "A" HPSI train injection valves were inoperable and review that condition relative to Technical Specification 3.0.5 requirements

LIST OF ACRONYMS USED

CR	condition report
EDG	emergency diesel generator
HPSI	high pressure safety injection
RBCCW	reactor building closed cooling water

ENCLOSURE 2

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Docket No.:	05000423
License No.:	NPF-49
Report No.:	05000423/2000-007
Licensee:	Northeast Nuclear Energy Company
Facility:	Millstone Nuclear Power Station, Unit 3
Location:	P. O. Box 128 Waterford, CT 06385
Dates:	April 2, 2000 - May 13, 2000
Inspectors:	A. C. Cerne, Senior Resident Inspector, Unit 3 B. E. Sienel, Resident Inspector, Unit 3 T. A. Moslak, Health Physicist, Division of Reactor Safety (DRS)
Approved by:	James Linville, Director Millstone Inspection Directorate Office of the Regional Administrator Region I

SUMMARY OF FINDINGS

Millstone Nuclear Power Station
NRC Inspection Report 05000423/2000-007

The report covers a 6-week period of resident inspection and an announced inspection by a regional health physicist. The significance of issues is indicated by their color (green, white, yellow, or red) and was determined by the Significance Determination Process in Inspection Manual Chapter 0609 (see Attachment 1).

Cornerstone: Mitigating Systems

- **No Color.** Operability Determination MP3-020-99 documented a nonconforming condition regarding missing check valve internals on the "B" emergency diesel generator (EDG). A review of the action items, documented in condition report CR M3-99-2262 to restore the "B" EDG design basis qualification, determined that corrective measures were neither implemented at the first available opportunity, nor justified for a longer completion schedule. The NRC determined that this nonconforming condition was neither promptly identified and corrected, nor evaluated as a field design change; and thus, represented a violation of 10CFR50, Appendix B. The "B" EDG, while not fully qualified, was determined to be operable. This issue was determined to be a Non-Cited Violation. (Section 1R15)

Cornerstone: Occupational Radiation Safety

- **Green.** On June 19, 1999, licensee personnel identified that the entrance ladder to the north access to the Unit 3 reactor cavity, an area having radiation levels greater than 1000 millirem/hour when measured at 45 centimeters from the source, was not locked or otherwise controlled to prevent unauthorized entry. Technical Specification 6.12.2 requires that plant areas, accessible to personnel, with radiation levels greater than 1000 millirem/hour at 45 centimeters be locked to prevent unauthorized entry. Upon identification, access controls were promptly established. The licensee determined that there was no compromise in their ability to assess dose, that this condition was of short duration, and that no personnel were overexposed as a result of this condition. Consequently, there was very low risk significance associated with this violation. The licensee entered the issue into its corrective action process as condition report M3-99-2430. Additionally, the licensee recognized the matter as a performance indicator affecting Occupational Exposure Control Effectiveness. This item was identified as a Non-Cited Violation. (Section 2OS1)

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Report Details

SUMMARY OF UNIT 3 STATUS

The plant operated at approximately 100 percent power throughout the inspection period.

1. REACTOR SAFETY
(Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity)

1R04 Equipment Alignment

a. Inspection Scope

The inspector conducted a partial system walkdown of the high head safety injection (SIH) system during and immediately after one SIH train was rendered inoperable during the conduct of a planned surveillance activity. This inspection confirmed proper configuration control of the protected, operable SIH train, as well as correct re-alignment and system restoration of the inoperable train. The inspector also verified the operable status of the protected "A" train emergency diesel generator (EDG), in particular checking the system alignment of the EDG fuel oil system, during a period of time that the "B" train EDG was inoperable for the conduct of corrective maintenance. During the conduct of both system walkdowns, tagging boundaries and the restoration of valves, breakers, and switches to a normal operational alignment were confirmed.

b. Issues and Findings

There were no findings identified during this inspection.

1R05 Fire Protection

a. Inspection Scope

The inspector conducted inspection-tours of the East and West "MCC & Rod Control Areas" at elevations 24'6'' and 43'6'' in the auxiliary building. These areas not only contain redundant trains of electrical equipment with both risk and safety significance, but also house some local controls for the operation of safety-related equipment in the event that an evacuation of the main control room would be required, which would preclude remote operation of the subject equipment. During this tour, the inspector examined the programmatic controls for combustible and flammable material, the status of fire detectors and alarm devices, the condition of fire penetration seals and other barriers, and the means for automatic fire suppression and other fire fighting strategies in each area.

b. Issues and Findings

No findings were identified during the inspection of fire protection equipment and controls in these two areas.

1R13 Maintenance Risk Assessment and Emergent Work Evaluation

a. Inspection Scope

During this period, the licensee identified changes in pressurizer spray valve line temperatures, documented in condition report (CR) M3-00-1109. The inspector observed the licensee's control of emergent work performed, including a containment entry, to investigate these indications. The inspector reviewed the overall action plan, pressurizer trending data, and automated work order (AWO) M3-00-07818 associated with the containment entry; observed a walkdown of the work scope performed on a similar valve in the maintenance shop; attended the pre-job brief in the control room and observed control room communications with the work team in containment; and discussed the results obtained from the walkdown and subsequent heater cycling with the system engineer.

The inspector also reviewed two other maintenance work activities, one involving a planned repair activity (AWO M3-00-06705) affecting the operability of the train "B" emergency diesel generator (EDG) and the other addressing emergent work (AWO M3-00-07763) on this same "B" EDG that again required the diesel generator to be tagged out and declared inoperable. In both cases, the overall configuration of the plant systems was assessed, with protected "A" train controls in evidence for the planned "B" train work, and a suspension of "A" train work noted when the "B" train EDG problems emerged. The inspector verified that work was controlled and performed within the tagging boundaries and that both contingency actions and redundant train impact, where applicable, were adequately evaluated.

b. Issues and Findings

There were no findings identified during this inspection.

1R15 Operability Evaluations

a. Inspection Scope

The following operability determinations (ODs) initiated during this inspection period were reviewed. The inspector verified that the engineering justification for operability was sound, any compensatory actions required were in place, and all applicable technical specifications were met.

- MP3-020-99 "B" EDG Fuel Return Header Check Valves without Internal Parts
- MP3-034-99 Expansion of Hylum Air Motor Blades in QA Cat I Air Driven Sump Pumps (Revision 2)
- MP3-007-00 Loose Parts Monitor Alarm in Upper Reactor Vessel
- MP3-008-00 Pin Hole Service Water Leak downstream of the Safety Injection Pump Cooler

b. Issues and Findings

There were no findings identified relative to three of the four operability determinations evaluated during this inspection period.

However, some observations were made with respect to OD MP3-020-99, as follow:

- OD MP3-020-99 documented a nonconforming condition regarding missing check valve internals on the "B" EDG, assuming this condition applied to the "A" EDG, as well. Subsequent radiography of the "A" EDG check valves established that the internals were installed in these valves, as designed. However, the OD was not revised to evaluate this new information, as delineated in the station procedure, RP 5 (revision 2) for "Operability Determinations".

- OD MP3-020-99 does not document an evaluation of the impact of the missing check valve internals on the safety function of a continuous vent line attached to the EDG fuel surge tank/accumulator.

- Corrective actions, documented in condition report CR M3-99-2262 to restore the "B" EDG design basis qualification, were neither implemented at the first available opportunity, nor justified for a longer completion schedule, as is discussed in NRC Generic Letter 91-18, Revision 1. Therefore, the missing check valve internals represented a nonconforming condition that was not promptly identified and corrected, as required by 10CFR50, Appendix B, Criterion XVI. Additionally, this condition was not evaluated as a field design change, which would have required the requisite controls of 10 CFR 50, Appendix B, Criterion III.

The licensee's evaluation of the missing check valve internals determined that the "B" EDG, while not fully qualified, was operable. Nonetheless, licensee failures to promptly identify and correct nonconforming conditions and to adequately control a "de facto" design change on the "B" EDG fuel return system represent a violation of 10CFR50, Appendix B. This violation is being treated as a Non-Cited Violation **(NCV 50-423/2000-007-01)**, consistent with Section VI.A of the Enforcement Policy, issued on May 1, 2000 (65 FR 25368).

1R19 Post Maintenance Testing

a. Inspection Scope

During this inspection period, the inspector observed portions of the post-maintenance testing (PMT) activities, following equipment outages, for three safety-significant, train "B" systems. These included the high head safety injection pump and header equipment; the charging pump, pump cooling and motor breaker alignment; and the emergency diesel generator, including starting air, jacket water cooling and fuel oil configuration. Control room operators were interviewed regarding the system lineups, component status, and redundant equipment contingencies during the test conduct and discussions were held in the field with system engineers with respect to certain test acceptance criteria. PMT tagging boundaries were spot-checked. The inspector also

verified equipment and system restoration to the normal, operable configuration after completion of the testing.

b. Issues and Findings

There were no findings identified during this inspection of PMT activities.

1R22 Surveillance Testing

a. Inspection Scope

The inspector observed the conduct of selected portions of the following surveillance test activities, either in the field or from the control room, and reviewed completed data sheets and other operational records to verify the tests were performed in accordance with the associated procedure and technical specification requirements.

- SP 3446B12 Solid State Protection Set Operability Test Train B
- SP 3604A.1 Charging Pump A Operational Readiness Test
- SP 3630D.1 Charging Pump Cooling 3CCE*P1A Operational Readiness Test

b. Issues and Findings

There were no findings identified during this inspection of surveillance activities.

1R23 Temporary Plant Modifications

a. Inspection Scope

The inspector reviewed actions taken by the licensee to implement two temporary modifications (TM), both involving the service water (SWP) system, with potential impact on the cooling function for safety-significant equipment. One temporary modification involved installation of a freeze seal to the SWP supply line to the train “B” emergency diesel generator (EDG) to allow for the replacement of a leaking maintenance isolation valve. During the conduct of this repair activity, the “B” EDG was inoperable. In addition to witnessing the work in progress, the inspector reviewed the TM controls, the freeze seal contingency plan, and both the technical and safety evaluations.

The other modification involved the installation of a temporary pipe clamp on SWP piping following the identification of a pin hole leak. The leak was identified in a three inch diameter, ASME Code Class 3 pipe located downstream of the safety-related safety injection pump cooler in the auxiliary building. The inspector reviewed CR M3-00-1210, design change notice (DCN) DM3-00-0157-00, and the safety evaluation screen associated with the pipe clamp to ensure appropriate steps were taken in accordance with the design and licensing basis of the plant. The inspector confirmed that the licensee plans to submit an exemption request to the NRC as this is a non-code repair.

b. Issues and Findings

There were no findings identified during this inspection of temporary plant modifications.

2. RADIATION SAFETY

Occupational Radiation Safety [OS]

2OS1 Access Control to Radiologically Significant Areas

a. Inspection Scope

The following activities were conducted to determine the effectiveness of access controls to radiologically significant areas:

All locked high radiation areas in Units 2 and 3 were physically checked and the keys inventoried. Independent measurements were made of radiation levels within both units' radiologically controlled areas (RCAs) including those areas of the Unit 2 Auxiliary Building that were affected by recent increases in primary coolant activity. Survey data and barricades/postings to high radiation areas were verified. On April 12, 2000, a radiation work permit (RWP) pre-job briefing for testing the incore instrument tube cutting machine and subsequent worker performance were observed. On April 13, 2000, the radiological controls for placement of new fuel in the Unit 2 spent fuel pool were observed. For these tasks, selected workers were questioned on their knowledge of the relevant RWP, dosimetry set points, and job-site radiological conditions.

Six (6) problem reports were reviewed that addressed worker performance errors, occurring between June 19, 1999, and April 7, 2000. Associated cause evaluations and corrective actions were examined. Included in this review were condition reports addressing the use of inappropriate RWPs and the failure to re-establish access controls to a locked high radiation area in the Unit 3 containment.

b. Issues and Findings

On June 19, 1999, at 5:30 a.m., during a routine health physics inspection of conditions in the Unit 3 containment, licensee personnel identified that the entrance ladder to the north access to the reactor cavity, an area having radiation levels greater than 1000 millirem/hour when measured at 45 centimeters from the source, was not locked or otherwise controlled to prevent unauthorized entry. Technical Specification (TS) 6.12.2 requires that plant areas, accessible to personnel, with radiation levels greater than 1000 millirem/hour at 45 centimeters be locked to prevent unauthorized entry. Specifically, the lock was removed from the entrance way ladder on the north access to the reactor cavity, in preparation for relocating the access to the reactor cavity, but personnel failed to subsequently re-establish the high radiation controls at the new access point on the
51 foot elevation of the containment building as planned. The condition existed for no more than 12 hours before being identified. Upon identification, access controls were promptly established. The licensee determined that no unplanned personnel exposures occurred as a result of this condition and that the condition was of short duration. The licensee identified this condition as a violation of TS 6.12.2 and entered the issue into its

corrective action process as CR M3-99-2430. Additionally, the licensee recognized the matter as a performance indicator affecting Occupational Exposure Control Effectiveness (Reference Section 4OA2).

This issue is more than minor in that, if left uncorrected, it may have become a more significant safety concern. The issue affects the Occupational Radiation Cornerstone since it involves the failure of a radiation barrier that could result in significant unintended dose. In this case, no personnel were overexposed; and there was no substantial potential for exposure in excess of regulatory limits. Further, all personnel who would have had access to the area were provided with thermoluminescent dosimetry and self-alarming electronic dosimetry. Accordingly, there was no compromise in the licensee's ability to assess dose. Consequently, there was very low risk significance associated with this violation. In accordance with NRC Enforcement Policy and the Occupational Radiation Safety Significance Determination Process, this matter is considered a Non-Cited Violation (Green). **(NCV 05000423/2000-007-02)**

4. OTHER ACTIVITIES [OA]

4OA1 Performance Indicator Verification

.1 Occupational Exposure Control Effectiveness

a. Inspection Scope

Nineteen (19) incidents, occurring during the past twelve (12) quarters, were reviewed that involved either the improper control of high radiation areas or unintended personnel exposure. These incidents were evaluated as potential Occupational Exposure Control Effectiveness performance indicators (PIs) by verifying that those incidents involving either an unplanned exposure of greater than 100 mRem, or those incidents resulting in a failure to properly control access to a locked high or very high radiation area were entered into the corrective action program and listed as a PI. The one (1) incident that fully met the criteria as a performance indicator was reviewed in depth. Corrective action program records for this incident, involving a failure to secure a locked high radiation area in Unit 3, in June 1999, were reviewed for accuracy and completeness (Reference Section 2OS1).

b. Issues and Findings

There were no findings identified during this inspection.

4OA2 Identification and Resolution of Problems

a. Inspection Scope

The inspector reviewed Nuclear Oversight performance reports, self assessments, engineering action plans, and several condition reports initiated by the licensee to address issues requiring further evaluation and/or corrective action implementation.

b. Issues and Findings

One finding documented in a previous section of this report had implications regarding the licensee corrective action process, as noted below:

- Section 1R15 - An NCV was identified relative to the timeliness of the implementation of corrective actions specified in a condition report that provided input to an operability determination for one emergency diesel generator.

No other findings were identified during this inspection as a result of the review and follow-up of the licensee's problem identification and resolution documentation.

4OA6 Meetings, including Exit

.1 Exit Meeting Summary

The inspectors presented the inspection results to members of licensee management at the conclusion of the inspection. The licensee acknowledged the findings presented.

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed During this Inspection

NCV 05000423/2000-007-01	Failure to promptly identify and correct nonconforming conditions and to adequately control a “de facto” design change on the “B” EDG fuel return system
NCV 05000423/2000-007-02	Failure to control a high radiation area in accordance with Technical Specification 6.12.2

LIST OF ACRONYMS USED

AWO	automated work order
CR	condition report
DCN	design change notice
EDG	emergency diesel generator
RCA	radiologically controlled area
RWP	radiation work permit
OD	operability determination
PI	performance indicator
PMT	post maintenance testing
SIH	high head safety injection
SWP	service water
TM	temporary modifications
TS	technical specification

ATTACHMENT 1

NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety	Radiation Safety	Safeguards
● Initiating Events	● Occupational	● Physical Protection
● Mitigating Systems	● Public	
● Barrier Integrity		
● Emergency Preparedness		

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be

taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.