

June 12, 2001

Mr. R. P. Necci, Vice President -
Nuclear Technical Services/Millstone
c/o Mr. D. A. Smith, Process Owner - Regulatory Affairs
Dominion Nuclear Connecticut, Inc.
Rope Ferry Road
Waterford, Connecticut 06385

SUBJECT: MILLSTONE UNITS 2 AND 3 - NRC INSPECTION REPORTS 50-336/01-04
AND 50-423/01-04

Dear Mr. Necci:

On May 12, 2001, the NRC completed inspections at your Millstone Units 2 & 3 reactor facilities. The enclosed reports document the inspection findings which were discussed on May 21, 2001 with Mr. W. Matthews and other members of your staff.

These inspections examined 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. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, the NRC identified one finding describing an adverse performance trend at Unit 2 related to the cross-cutting issue of human performance in maintenance risk management. Further, the NRC identified three issues at Unit 2 that were evaluated under the significance determination process and were determined to be of very low safety significance (green). One of the three findings was determined to involve a violation of NRC requirements. However, because of the very low safety significance and because it has been entered into your corrective action program, the NRC is treating this issue as a Non-Cited Violation, in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you deny this Non-Cited Violation, you should provide a response with the basis for your denial, within 30 days of the date of these inspection reports, 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.

Mr. R. P. Necci

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Sincerely,
/RA/

Curtis J. Cowgill, Chief
Projects Branch 6
Division of Reactor Projects

Docket Nos.: 50-336, 50-423
License Nos.: DPR-65, NPF-49

Enclosures:

- (1) NRC Inspection Report 50-336/01-04
Attachment 1: Supplemental Information
- (2) NRC Inspection Report 50-423/01-04
Attachment 1: Supplemental Information

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ENCLOSURE 1

**U.S. NUCLEAR REGULATORY COMMISSION
REGION I**

Docket No.: 50-336

License No.: DPR-65

Report No.: 50-336/01-04

Licensee: Dominion Nuclear Connecticut, Inc.

Facility: Millstone Nuclear Power Station, Unit 2

Location: P. O. Box 128
Waterford, CT 06385

Dates: April 1, 2001 - May 12, 2001

Inspectors: S. R. Jones, Senior Resident Inspector, Unit 2
P. C. Cataldo, Resident Inspector, Unit 2
J. C. Jang, Sr. Health Physicist, Division of Reactor Safety (DRS)
G. C. Smith, Sr. Physical Security Inspector, DRS

Approved by: Curtis J. Cowgill, Chief
Projects Branch 6
Division of Reactor Projects
Region I

SUMMARY OF FINDINGS

IR 05000336-01-04; on 04/01-05/12/01; Dominion Nuclear Connecticut, Inc., Millstone Nuclear Power Station; Unit 2. Maintenance Risk Assessments and Emergent Work Evaluation, Cross-cutting Issues, Licensee Identified Violations.

The inspection was conducted by resident and regional inspectors. The inspection identified three green issues, one of which was a Non-Cited Violation. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using IMC 0609 "Significance Determination Process" (SDP). Findings for which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violation. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at <http://www.nrc.gov/NRR/OVERSIGHT/index.html>.

A. Inspector Identified Findings

Cornerstone: Initiating Events

- **Green.** The licensee did not adequately evaluate the scope of work involved in the overhaul of the "D" circulating pump in that the authorized work affected the operating "C" circulating water pump. The inadequate control of maintenance activities resulted in a trip of the operating "C" circulating water pump, a loss of main condenser vacuum, an automatic turbine trip, and an automatic reactor trip on April 29, 2001. The failure to implement adequate work controls was of very low safety significance because the main condenser remained available as a heat removal path. No violation of NRC requirements was identified. (Section 1R13.1)
- **Green.** The licensee did not adequately evaluate the effect of securing and tagging the traveling screen for the "B" circulating pump for diver safety during the performance of work on the "A" circulating water pump. At the start of the work on May 7, 2001, the licensee had both historic information and current information from the adjacent Unit 3 operating staff that unfavorable seaweed conditions were present in Niantic Bay, which is the plant's ultimate heat sink. Inadequate human performance in evaluating the effect of planned diver protection measures on the operating "B" circulating water pump resulted in the inability to recover from the fouling of the traveling screen by seaweed, a trip of the "B" circulating water pump, and a manual reactor trip in accordance with the licensee's abnormal operating procedure for loss of condenser vacuum. The failure to adequately evaluate the scope of tagging was of very low safety significance because the main condenser remained available as a heat removal path. No violation of NRC requirements was identified. (Section 1R13.2)

Cornerstone: Mitigating Systems

- **Green.** The licensee failed to adequately control barriers protecting essential mitigating equipment from the effects of a potential high energy line break (HELB) during maintenance activities. While the licensee had the “B” switchgear room doors open for compensatory cooling, a previously identified problem with turbine building ventilation prevented automatic closure of the turbine building doors. This condition created a path for the effects of a HELB in the turbine building to affect equipment in the nearby “B” DC switchgear room. Although the affected mitigating equipment was important, the condition was of very low safety significance due to the short exposure time and the low probability of a HELB in the turbine building. This violation of Technical Specification 6.8.1 requirements to adequately implement work control procedures is being treated as a Non-Cited Violation. (Section 1R13.3)

Cornerstone: Cross-cutting Issues

No Color. The NRC noted development of an apparent trend related to inadequate identification of risk-significant aspects of maintenance activities and the implementation of appropriate measure to manage that risk. The following specific deficiencies have been noted within the last six months:

- (1) In December 2000, the NRC identified that inappropriate work controls were implemented for maintenance, which resulted in the inadvertent closure of one feedwater regulating valve with the plant operating at 100 percent power (FIN 50-336/2000-013-01).
- (2) In April 2001, the NRC identified that inadequate work controls were implemented for work on in-service equipment, which resulted in a reactor trip (Section 1R13.1).
- (3) In May 2001, the NRC identified that inadequate control of tagging implemented for worker protection affected the operation of in-service equipment and resulted in a reactor trip (Section 1R13.2).
- (4) In April 2001, the NRC identified that inadequate control of doors during maintenance resulted in the potential for a high energy line break (HELB) to affect equipment used to mitigate the HELB event (Section 1R13.3).

These issues have a related cause in that they represent inadequate human performance in identifying risk significant aspects of maintenance activities and implementing necessary measures to manage the risk. They also have a direct impact on safety because of the increased frequency of initiating events and the increased potential for failure of essential mitigating equipment. This performance trend is considered a substantive cross-cutting issue, separate from the individual issues, and is considered a finding.

B. Licensee Identified Violations

A violation of very low significance which was identified by the licensee has been reviewed by the inspectors. Corrective actions taken or planned by the licensee appear reasonable. This violation is listed in Section 4OA7 of this report.

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SUMMARY OF UNIT 2 STATUS

The plant operated between 97 to 100 percent power throughout the inspection period, with the exception of turbine control valve testing conducted at 90 percent power on April 22, 2001, and the following unplanned reactor trips and power reductions:

April 29 - May 5, 2001	Automatic turbine and reactor trip from 97 percent power on degraded main condenser vacuum due to a maintenance-induced trip of the "C" circulating water (CW) pump while the "D" CW pump was out-of-service.
May 5-6, 2001	Power reduction to approximately 2 percent reactor power due to the spurious failure of a feedwater heater relief valve in the open position.
May 7-9, 2001	Manual reactor trip from 97 percent power due to the automatic trip of the "B" CW pump on high intake screen differential pressure while the "A" CW pump was out-of-service.

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

1R05 Fire Protection

a. Inspection Scope

The inspector reviewed the licensee's fire hazard analysis, Appendix R Compliance Report, Technical Requirements Manual, and selected fire fighting strategies and fire protection device surveillance procedures for the following plant areas: (1) Turbine Building 14'-6" Elevation, Fire Area T-1A; (2) Turbine Lube Oil Room, Fire Area T-2; (3) Motor Driven Auxiliary Feed Pump Pit, Fire Area T-3; and (4) Steam Driven Auxiliary Feed Pump Pit, Fire Area T-4. The inspector toured these areas to verify the functionality of fire detection and suppression devices; the integrity of penetration seals, structural steel fire-retardant coatings, and other fire barriers; and the adequate control of transient combustible materials located in these areas.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification

a. Inspection Scope

On April 24, 2001, the inspector observed the conduct of a licensed operator requalification simulator training exercise. The inspector observed licensed operator performance in the following areas: effective communications; implementation of normal, abnormal and emergency operating procedures; command and control; and technical specification compliance. The inspector verified that the training evaluators adequately addressed operator performance issues that were identified during the exercise, and that applicable training objectives had been achieved.

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

.1 Inadequate Control of Circulating Water Pump Work

a. Inspection Scope

The inspector reviewed work controls implemented under work order M2-89-12840, which involved the overhaul of the "D" circulating water pump motor. Since this activity was conducted with the unit operating at 97 percent power, the inspector evaluated the implemented work controls against the controls specified in procedures MP-20-WM-FAP02.1, "Conduct of On-Line Maintenance," and U2 WC 1, "Unit 2 Work Control Process."

The inspector also reviewed the licensee's event review team report regarding the unexpected trip of the "C" circulating water pump and subsequent automatic main turbine and reactor trips that resulted from this work activity on April 29, 2001.

b. Findings

The licensee did not adequately evaluate the scope of work involved in the overhaul of the "D" circulating pump in that the authorized work affected the operating "C" circulating water pump. The inadequate control of maintenance activities resulted in a trip of the operating "C" circulating water pump, a loss of main condenser vacuum, an automatic turbine trip, and an automatic reactor trip. Human performance errors in the evaluation and approval of the work scope were considered a direct cause. The failure to implement adequate work controls was of very low safety significance because the main condenser remained available as a heat removal path.

Previously, the licensee had performed circulating water pump overhauls only during outage periods. When the licensee introduced the overhaul work into the on-line maintenance schedule, the work reviews failed to identify aspects of the work that could affect in-service components necessary for plant operation at power. For the motor overhaul, the scope of work included operation of the "D" circulating water pump motor

with the shaft disconnected from the pump to verify its correct rotation. This activity required the installation of jumpers in an operational control circuit outside the tagging boundary to bypass interlocks protecting the pump. However, neither work planning, operations department, nor maintenance personnel involved in the planning and implementation of the work identified that the interlock circuit affected the operation of both the "C" and "D" circulating water pumps. The inspector found that the procedures U2 WC 1, "Unit 2 Work Control Process," and MP-20-WM-FAP02.1, "Conduct of On-Line Maintenance," which are used in the development of work orders, lacked specific instructions to evaluate the effect of work on operational equipment outside the tagging boundary.

Consequently, the work order did not include instructions for the placement of jumpers, and the maintenance technicians and operations department personnel failed to take measures to protect the operating circulating water pump. As a result, activities to install the jumper interrupted continuity in the control circuit for the "C" circulating water pump, which tripped the pump. With no circulating water flow in one segment of the main condenser, pressure increased to the main turbine trip setpoint, which initiated a turbine trip and reactor trip. The licensee documented this transient in Condition Report CR-01-04615.

The inspector evaluated this condition using the NRC's Significance Determination Process because the condition increased the frequency of initiating events. The NRC concluded that the condition was of very low safety significance (Green) because the availability of mitigating systems was unaffected by the condition. Because the scope of work did not involve safety-related components, no violation of NRC requirements was identified. **(FIN 50-336/01-04-01)**

.2 Manual Reactor Trip Due To Loss Of Circulating Water

a. Inspection Scope

The inspector reviewed work controls implemented under work order M2-00-18841, which involved work on the "A" circulating water pump casing on May 7, 2001. Since this activity was conducted with the unit operating at 97 percent power, the inspector evaluated the implemented work controls against the controls specified in procedures MP-20-WM-FAP02.1, "Conduct of On-Line Maintenance," WC 2, "Tagging," and U2 WC 1, "Unit 2 Work Control Process."

The inspector also reviewed the licensee's event review team report regarding the unexpected trip of the "B" circulating water pump on high traveling screen differential pressure due to seaweed fouling and the subsequent manual reactor trip that resulted from this work activity.

b. Findings

The licensee did not adequately evaluate the effect of securing and tagging the traveling screen for the "B" circulating pump for diver safety during the performance of work on the "A" circulating water pump. At the start of the work on May 7, 2001, the licensee had both historic information and current information from the adjacent Unit 3 operating staff that unfavorable seaweed conditions were present in Niantic Bay, which is the plant's ultimate heat sink. Inadequate human performance in evaluating the effect of planned diver protection measures on the operating "B" circulating water pump resulted in the inability to recover from the fouling of the traveling screen by seaweed, a trip of the "B" circulating water pump, and a manual reactor trip in accordance with AOP 2574, "Loss of Condenser Vacuum." The failure to adequately evaluate the scope of tagging was of very low safety significance because the main condenser remained available as a heat removal path.

The planned work in the "A" bay of the intake structure required preparation of tagging for diver protection. Step 1.4.1 of procedure WC 2 required operations department review of the tagging to review the effects of tagging on indications, instruments, and controls and the need for compensatory actions. Although installation of a physical barrier between bays was permitted to provide diver protection, this protection was instead provided by tagging the controls for the traveling screens in the "B" bay. However, the licensee did not identify or implement compensatory measures to address the degraded capability to prevent fouling of the intake for the operating "B" circulating water pump.

Unit 3 operators notified the Unit 2 operators of problems with seaweed fouling at the Unit 3 intake on May 7, 2001. Step 2.12.7.b of procedure MP-20-WM-FAP02.1 specifies that the shift manager or unit supervisor ensure the plant is placed in a condition to allow removal of equipment from service and verify that standby equipment is available prior to releasing work. An adjacent note states that the condition of relevant plant equipment will be assessed in order to assure an acceptable level of unit and system reliability. Although the Unit 2 staff was notified of increased potential for intake fouling, work was released on the "A" intake bay without verifying that equipment in the functionally redundant "B" intake bay would be maintained available.

The inspector evaluated this condition using the NRC's Significance Determination Process because the condition had an actual impact on plant safety by increasing the frequency of initiating events. However, the NRC concluded that the condition was of very low safety significance (Green) because the availability of mitigating equipment was unaffected by the condition. Because the scope of work did not involve safety-related components, no violation of NRC requirements was identified. **(FIN 50-336/01-04-02)**

.3 Turbine Building High Energy Line Break (HELB) Door Operability During DC Switchgear Compensatory Cooling

a. Inspection Scope

The inspector reviewed work controls implemented during maintenance activities on the “B” vital chilled water pump, P-122B, which required compensatory cooling of the “B” DC switchgear room in accordance with the technical requirements manual. The inspector reviewed work order M2-01-01240, which covered the work activities on the “B” vital chilled water pump between April 16 through April 20, 2001. The inspector also reviewed the following condition reports (CRs) related to degraded performance of the HELB barrier doors adjacent to the “B” DC switchgear room: CR M2-00-1055, CR M2-00-2974, and CR M1-00-0515.

b. Findings

The licensee failed to adequately control barriers protecting essential mitigating equipment from the effects of a potential HELB during maintenance activities. While the licensee had the “B” switchgear room doors open for compensatory cooling, a previously identified problem with turbine building ventilation prevented automatic closure of the turbine building doors. This condition created a path for the effects of a HELB in the turbine building to affect equipment in the nearby “B” DC switchgear room. Although the affected mitigating equipment was important, the condition was of very low safety significance due to the short period of time.

On April 16, 2001, the licensee began work on the “B” vital chilled water pump, which required compensatory cooling of the “B” DC switchgear room in accordance with the technical requirements manual. The compensatory cooling measures included blocking open the door leading to the “B” DC switchgear room. While compensatory cooling measures were in effect on April 18, 2001, the inspector found the nearby turbine building HELB door ajar. The licensee found that a ventilation imbalance was preventing the automatic closure of the turbine building HELB door. The inspector also found that the condition had the potential to have existed for greater than the technical specification (TS) allowed outage time of the “B” DC switchgear, two hours.

Although the DC switchgear room doors are not designated for function as a HELB barrier, the licensee had used these doors as a basis for operability of the DC switchgear on the following occasions: in April 2000, when the latches for the turbine building doors were inoperable with the plant at 100 percent power (CR M2-00-1055); and in October 2000, when a ventilation imbalance prevented automatic closure of the turbine building doors (CR M2-00-2974). These conditions revealed the unreliable performance of the turbine building HELB doors in protecting the mitigating equipment in the “B” DC switchgear room. Step 2.12.7.b of procedure MP-20-WM-FAP02.1 specifies that the shift manager or unit supervisor ensure the plant is placed in a condition to allow removal of equipment from service and verify that standby equipment is available prior to releasing work. An adjacent note states that potential system interactions and the operability of redundant equipment will be assessed. Although the turbine building HELB door safety function was easily defeated by minor changes in ventilation flow balance, work was released affecting the “B” DC switchgear room door

without implementing appropriate compensatory measures to ensure the HELB barrier function would be maintained, such as limiting use of the turbine building doors to emergency conditions.

The inspector evaluated this condition using the NRC's Significance Determination Process, because the condition had a credible impact on the operability and availability of mitigating equipment needed to respond to a HELB in the turbine building. However, for the main steam line break and main feedwater break scenarios, the condition was of very low safety significance (Green) because the door was open for a short time and the probability of a HELB was low.

Unit 2 Technical Specification 6.8.1.a requires that written procedures be established, implemented, and maintained for the activities described in Appendix A of RG 1.33, "Quality Assurance Program Requirements (Operation)." Section 9 of RG 1.33, Appendix A, describes general procedures for control of maintenance, which should include factors to be taken into account in preparing detailed work procedures. Procedure MP-20-WM-FAP02.1, "Conduct of On-Line Maintenance," provides the instructions for preparation of detailed work procedures, including the planning and scheduling of maintenance activities. This procedure was not adequately implemented in that the licensee failed to adequately assess the effect of blocking open doors to the "B" DC switchgear room and implement appropriate compensatory measures for the reduced protection from turbine building HELB events. This violation of Technical Specification 6.8.1.a is being treated as a Non-Cited Violation (**NCV 50-336/01-04-03**), consistent with Section VI.A of the NRC Enforcement Policy, NUREG-1600.

.4 Turbine Driven Auxiliary Feedwater (TDAFW) Pump Steam Trap Activities

a. Inspection Scope

The inspector reviewed the licensee's work coordination when the Operations department deferred the performance of SP 2403BB, "Facility 2 ESAS UV RSST and Sequencer Calibration and Functional Test," due to the identification of an unanticipated probabilistic risk assessment (PRA) condition of Orange. The PRA condition was questioned due to parallel activities that were scheduled relative to an on-going investigation of steam trap operations associated with the TDAFW pump. However, the licensee subsequently determined that the surveillance test, SP 2403BB, did not cause an Orange PRA condition. The inspector verified that the licensee conservatively managed the two work activities through deferral of the surveillance test.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations

Turbine Driven Auxiliary Feedwater (TDAFW) Pump Steam Trap Operability

a. Inspection Scope

The inspector evaluated the licensee's actions following the identification that a steam trap (ST-156) upstream of the steam admission valve to the TDAFW pump was potentially not operating as designed due to frequent steam trap level switch alarms. An inoperable steam trap could possibly cause moisture to be supplied to the steam turbine and cause damage that could lead to the TDAFW pump being incapable of performing its design function. The inspector reviewed operability determination (OD) MP2-061-01, which addressed operability of the TDAFW pump given the alarming conditions associated with the steam trap. The inspector verified that the licensee provided an adequate basis for continued operability in that:

- failure of the level switch would not prevent the steam trap from performing its required function of supplying dry steam to the TDAFW pump;
- the steam trap was observed to be performing its intended function based on expected temperature differentials across the trap; and
- limited water was observed upon drainage of the steam trap's discharge piping that was indicative of adequate trap operation.

b. Findings

No findings of significance were identified.

1R19 Post Maintenance Testing

.1 Vital Chilled Water Pump P-122B Maintenance

a. Inspection Scope

The inspector evaluated post-maintenance testing associated with the repair of the "B" vital chilled water pump, P-122B, which was conducted in accordance with work order M2-01-01240. Following the initial surveillance test failure that occurred on April 16, 2001, the licensee performed several maintenance activities to restore the pump performance to an acceptable level. On April 20, 2001, the licensee successfully completed SP 2623A, "Vital Chilled Water Pumps and Valves IST." The inspector reviewed the scope of the maintenance activities, the in-service test procedure, and the collected test data and verified that the post-maintenance tests were adequate given the scope of the activities, and provided adequate assurance that the chilled water pump could perform its required safety function.

b. Findings

No findings of significance were identified.

.2 Pressurizer Level Transmitter L-110Y Replacement

a. Inspection Scope

The inspector reviewed post-maintenance activities associated with work order M2-01-04668, which involved the replacement of the safety-related pressurizer level transmitter L-110Y. The inspector reviewed the test data associated with the calibration of the transmitter in accordance with SP 2402E, "Pressurizer Level Calibration," and verified that the post-modification test was adequate given the scope of the activities, and provided adequate assurance that the level transmitter could perform its required safety function. The inspector also verified that appropriate tests were performed on the remaining pressurizer level circuits to ensure that the problem that initiated the replacement was adequately isolated to the transmitter.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

.1 Engineered Safeguards Actuation System (ESAS) Bistable Trip Surveillance

a. Inspection Scope

The inspector observed the performance of SP 2403AC, "Channel "C" ESAS Bistable Trip and ATI Functional Test," conducted on April 26, 2001. The inspector verified that test results satisfied the applicable acceptance criteria, and that performance of the test adequately demonstrated equipment operability and capability to perform the intended safety function.

b. Findings

No findings of significance were identified.

.2 High Pressure Safety Injection Surveillance

a. Inspection Scope

The inspector observed the performance of a surveillance test on the "A" High Pressure Safety Injection (HPSI) pump conducted in accordance with SP 2604A, "HPSI Pump Operability and Inservice Testing, Facility 1," conducted on April 26, 2001. The inspector verified that test results satisfied the acceptance criteria of the surveillance procedure and the requirements of technical specifications, and that performance of the test adequately demonstrated equipment operability and capability to perform the intended safety function.

b. Findings

No findings of significance were identified.

Emergency Preparedness [EP]

1EP6 Drill Evaluationa. Inspection Scope

The inspector evaluated the performance of simulated event classifications and notifications during a licensed operator requalification training simulator exercise conducted on April 24, 2001. The inspector verified that the exercise was of appropriate scope and that classifications and notifications were evaluated against appropriate criteria, consistent with EPDI-18, "Administration of NRC Performance Indicators," and NEI 99-02, "Regulatory Assessment Performance Indicator Guidelines." Although the exercise was originally intended to be included in the data for the associated performance indicator, the inspector verified that the licensee appropriately did not credit the emergency classifications and notifications in the NRC performance indicator because the individual performing the exercise classifications was not assigned that function in the licensee's emergency response organization.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Public Radiation Safety [PS]

2PS1 Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systemsa. Inspection Scope

The inspector reviewed the following documents to evaluate the effectiveness of the licensee's radioactive gaseous and liquid effluent control programs. The requirements of the radioactive effluent controls are specified in the Unit 2 TSs, the Radiological Effluent Monitoring Manual (REMM), and the Unit 2 Offsite Dose Calculation Manual (ODCM).

- the 1999 and 2000 Radiological Annual Effluent Release Reports including projected public dose assessments;
- REMM (Revision 21, January 26, 2001), Unit 2 ODCM (Revision 21, January 26, 2001), and Unit 2 Radiological Effluent Controls (Revision 21, January 26, 2001);
- technical justifications for REMM and Unit 2 ODCM and Unit 2 Radiological Effluent Controls changes made;
- analytical results for charcoal cartridge, particulate filter, and noble gas samples;

- implementation of the compensatory sampling and analysis program when the effluent radiation monitoring system (RMS) is out of service;
- selected 2000 and 2001 radioactive liquid and gaseous release permits;
- associated effluent control procedures, including analytical laboratory procedures and the operation of a cross contaminated system (implementation of the IE 80-10);
- calibration records for Unit 2 chemistry laboratory measurements equipment (gamma and liquid scintillation counters);
- implementation of the measurement laboratory quality control program, including quarterly effluent split/spike samples comparisons and control charts;
- contractor laboratory's (Environmental Laboratory, Duke Engineering and Services) Quality Assurance Plan;
- contractor laboratory's 2000 Semi-Annual Quality Assurance Status Reports;
- implementation of the interlaboratory comparisons (from 1st Quarter 2000 to 1st Quarter 2001) performed by Unit 2 Chemistry;
- self-assessment (MP-SA-00-024, October 2000);
- Unit 2 Condition Reports and corrective actions (M2-00-0170, M2-00-1208, M2-00-1526, M2-00-1766, M2-00-2136, M2-00-3120, M2-00-3140, CR-01-00395, and CR-01-03586);
- the 2000 NQA Audit (Audit No. MP-00-A14, November 9, 2000) for the REMM and ODCM implementations;
- most recent surveillance testing results (visual inspection, delta P, in-place testings for high efficiency particulate air and charcoal filters, air capacity test, and laboratory test for iodine collection efficiency) for the following air treatment systems:
 - TS Section 3/4.6.5.1: Enclosure Building Filtration System (surveillance tests were performed in May 2000); and
 - TS Section 3/4.7.6.1: Control Room Emergency Ventilation System (surveillance tests were performed in May 2000).
- most recent Channel Calibration results for the radioactive liquid effluent RMS and its flow measurement devices which listed in the ODCM Table IV C-2:
 - Clean Liquid Radwaste Effluent Line Radiation Monitor (RM-9049, calibration date, 9/19/00);
 - Clean Liquid Radwaste Effluent Line Flow Rate Monitor (F-9050, calibration date, 1/20/00);
 - Aerated Liquid Radwaste Effluent Line Radiation Monitor (RM-9116, calibration date, 3/29/00);
 - Aerated Liquid Radwaste Effluent Line Flow Rate Monitor (F-9118, calibration date, 9/13/00);
 - Steam Generator Blowdown Radiation Monitor (RM-4262, 1/22/01);
 - Reactor Building Closed Cooling Water Radiation Monitor (RM-6038, calibration date, 12/18/00);
 - Condensate Polishing Facility Waste Neutralization Sump Radiation Monitor (2CND-RM-245, calibration date, 9/5/00); and
 - Condensate Polishing Facility Waste Neutralization Sump Flow Rate Monitor (2CND-FT-246, calibration date, 9/5/00).

- most recent Channel Functional Test results for the radioactive liquid effluent RMS and its flow measurement devices which listed in the ODCM Table IV C-2:
 - Clean Liquid Radwaste Effluent Line Radiation Monitor (test date, 3/7/01);
 - Clean Liquid Radwaste Effluent Line Flow Rate Monitor (test date, 3/7/01);
 - Aerated Liquid Radwaste Effluent Line Radiation Monitor (test date, 2/28/01);
 - Aerated Liquid Radwaste Effluent Line Flow Rate Monitor (test date, 2/28/01);
 - Steam Generator Blowdown Radiation Monitor (test date, 4/17/01);
 - Reactor Building Closed Cooling Water Radiation Monitor (test date, 4/11/01);
 - Condensate Polishing Facility Waste Neutralization Sump Radiation Monitor (test date, 2/21/01); and
 - Condensate Polishing Facility Waste Neutralization Sump Flow Rate Monitor (test date, 11/28/00).

- most recent Channel Calibration results for the radioactive gaseous effluent RMS and its flow measurement devices which listed in the ODCM Table IV C-4:
 - MP2 Vent Noble Gas Activity Monitor (RM-8132B, calibration date, 8/9/00);
 - MP2 Vent Flow Rate Monitor (RR-8132, calibration date, 7/14/99);
 - Millstone Stack Noble Gas Monitor (RM-8169, calibration date, 2/27/01);
 - Millstone Stack Flow Rate Monitor (FT-8169, calibration date, 2/27/01); and
 - Waste Gas System Noble Gas Monitor (RM-9095, calibration date, 2/26/01).

- most recent Channel Functional Test results for the radioactive gaseous effluent RMS and its flow measurement devices which listed in the ODCM Table IV C-4:
 - MP2 Vent Noble Gas Activity Monitor (test date, 4/19/01);
 - MP2 Vent Flow Rate Monitor (test date, 1/4/01);
 - Millstone Stack Noble Gas Monitor (2/25/01);
 - Millstone Stack Flow Rate Monitor (test date, 4/17/01); and
 - Waste Gas System Noble Gas Monitor (test date, 2/26/01).

The inspector also toured and observed the following activities to evaluate the effectiveness of the licensee's radioactive gaseous and liquid effluent control programs.

- walk-down for determining the availability of radioactive liquid/gaseous effluent RMS and for determining the equipment material condition;
- walk-down for determining operability of air cleaning systems and for determining the equipment material condition; and
- observed radioactive liquid sampling and preparing for gamma spectrometry measurements.

b. Findings

No findings of significance were identified.

3. SAFEGUARDS

Physical Protection [PP]3PP4 Security Plan Changesa. Inspection Scope

An in-office review was conducted of changes to the Physical Security Plan, identified as Revisions 39 and 40, submitted to the NRC on December 7, 2000, and January 8, 2001, respectively, in accordance with the provisions of 10 CFR 50.54(p). The review was conducted to confirm that the changes were made in accordance with 10 CFR 50.54(p), and did not decrease the effectiveness of the plan.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES [OA]4OA2 Identification and Resolution of Problemsa. Inspection Scope

The inspector reviewed condition reports to verify that problems requiring corrective actions were captured at an appropriate threshold and identified corrective actions were commensurate with the significance of the problem.

b. Findings

The NRC found that the licensee did not implement timely or effective corrective actions regarding turbine building ventilation alignment problems, which resulted in unreliable performance of the turbine building HELB doors in automatically closing after use for personnel access. (Section 1R13.3).

4OA3 Event Follow-up

For the following plant transients, the inspector observed the performance of operators and necessary mitigating systems in placing the plant in a stable condition, and verified the adequacy of mitigating system availability and fission product barrier integrity:

- 1) Automatic reactor trip due to loss of both circulating water pumps supplying a single condenser segment on April 29, 2001. Related findings are described in Section 1R13.1.
- 2) Rapid power reduction due to the spurious failure of a feedwater heater shell relief valve on May 5, 2001. No findings of significance were identified.

- 3) Manual reactor trip due to loss of both circulating water pumps supplying a single condenser segment on May 7, 2001. Related findings are described in Section 1R13.2.

The inspector reviewed Licensee Event Report (LER) 50-245,336,423/2001-001-00, submitted on March 6, 2001. The LER detailed the licensee's identification on February 5, 2001, of an open site vehicle access point gate during a snowstorm without compensatory measures. The issues and related findings are described in Section 40A7.

40A4 Cross-cutting Issues

Human Performance Issues Related to Risk Management during Maintenance

a. Inspection Scope

The inspector reviewed human performance issues related to the management of risk during maintenance activities.

b. Findings

During planned maintenance activities to overhaul out-of-service circulating water pumps while the plant was operating at 97 percent power, the licensee did not adequately control maintenance activities with the potential to affect the adjacent operating circulating water pumps. This lack of adequate work controls caused the adjacent circulating water pumps to trip on two occasions, each culminating in a reactor trip. Human performance deficiencies in the review of the work scope and in the execution of procedurally directed evaluations of equipment removed from service for worker protection directly contributed to these transients. (Sections 1R13.1 and 1R13.2)

During planned maintenance affecting the vital DC switchgear cooling function, the licensee opened one previously credited HELB barrier without implementing compensatory measures to ensure the HELB barrier function would be maintained. Consequently, the essential mitigating systems located in the DC switchgear room were exposed to the effects of a potential HELB. Human performance in evaluating the functions of the open barrier and the reliability of redundant barriers or compensatory measures contributed to this condition.

The NRC noted development of an apparent trend related to inadequate identification of risk-significant aspects of maintenance activities and the implementation of appropriate measures to manage that risk. The following specific deficiencies have been noted within the last six months:

- (1) In December 2000, the NRC identified that inappropriate work controls were implemented for maintenance, which resulted in the inadvertent closure of one feedwater regulating valve with the plant operating at 100 percent power (FIN 50-336/2000-013-01).

- (2) In April 2001, the NRC identified that inadequate work controls were implemented for work on in-service equipment, which resulted in a reactor trip (Section 1R13.1).
- (3) In May 2001, the NRC identified that inadequate control of tagging implemented for worker protection affected the operation of in-service equipment and resulted in a reactor trip (Section 1R13.2).
- (4) In April 2001, the NRC identified that inadequate control of doors during maintenance resulted in the potential for a HELB to affect equipment used to mitigate the HELB event (Section 1R13.3).

These issues have a related cause in that they represent inadequate human performance in identifying risk significant aspects of maintenance activities and implementing necessary measures to manage the risk. They also have a direct impact on safety because of the increased frequency of initiating events and the increased potential for failure of essential mitigating equipment. This performance trend is considered a substantive cross-cutting issue, separate from the individual issues, and is considered a finding **(FIN 50-336/01-04-04)**.

4OA6 Meetings, including Exit

.1 Resident Inspector Exit Meeting

The inspectors presented the inspection results to the Vice President and Senior Nuclear Executive - Millstone and other members of licensee management at the conclusion of the inspection. The licensee acknowledged the findings presented.

The inspectors asked the licensee whether any material examined during this inspection should be considered proprietary. No proprietary information was identified.

4OA7 Licensee Identified Violations

The following finding of very low safety significance was identified by the licensee and is a violation of NRC requirements which meets the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600, for being dispositioned as a Non-Cited Violation (NCV).

Protected Area Gate Open without Compensatory Actions.
(Closed: LER 50-245,336,423/2001-001-00)

On February 5, 2001, the licensee identified that a gate that constituted a portion of the Protected Area barrier was in the fully open position without compensatory actions in place. This condition was contrary to the licensee's NRC approved Physical Security Plan, which states in part, that "Gates that constitute a portion of the protected area boundary area are constructed of the same or equivalent materials that are used for the protected area fence... . All gates are locked and alarmed when not in use...." This issue is more than minor in that, if left uncorrected, the same condition could result in unauthorized entry into the Protected Area. Since there was no malevolent act, no actual intrusion occurred, and there have not been greater than two similar findings in the past four quarters, the Significance Determination Process classifies this finding as one of very low safety significance (Green). This condition is a violation of 10 CFR 73.40, which requires that each licensee maintain physical security in accordance with their NRC-approved Physical Security Plan (**NCV 50-336,423/01-04-05**). This issue was entered into the licensee's corrective action program as CR-01-01032.

ATTACHMENT 1**SUPPLEMENTAL INFORMATION**a. List of Items Opened, Closed and DiscussedOpened and Closed During this Inspection

50-336/01-04-01	FIN	Inadequate control of maintenance on in-service components (1R13.1)
50-336/01-04-02	FIN	Inadequate control of tagging (1R13.2)
50-336/01-04-03	NCV	Inadequate control of high energy line break barriers (1R13.3)
50-336/01-04-04	FIN	Adverse trend in managing risk during maintenance (4OA4)
50-336,423/01-04-05	NCV	Protected Area Gate Open without Compensatory Actions (4OA7)

Previous Items Closed

50-245,336,423/01-01-00	LER	Protected Area Gate Open without Compensatory Actions (4OA7)
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Discussed

None

b. List of Acronyms Used

CRs	condition reports
CW	circulating water
ESAS	engineered safeguards actuation system
HELB	high energy line break
HPSI	high pressure safety injection
LER	licensee event report
NCV	non-cited violation
OD	operability determination
ODCM	offsite dose calculation manual
PRA	probabilistic risk assessment
REMM	radiological effluent monitoring manual
RG	regulatory guide
RMS	radiation monitoring system
SDP	significance determination process
TDAFW	turbine driven auxiliary feedwater
TS	technical specification

ENCLOSURE 2

**U.S. NUCLEAR REGULATORY COMMISSION
REGION I**

Docket No.: 50-423

License No.: NPF-49

Report No.: 50-423/01-04

Licensee: Dominion Nuclear Connecticut, Inc.

Facility: Millstone Nuclear Power Station, Unit 3

Location: P. O. Box 128
Waterford, CT 06385

Dates: April 1, 2001 - May 12, 2001

Inspectors: A. C. Cerne, Senior Resident Inspector, Unit 3
B. E. Siemel, Resident Inspector, Unit 3
G. C. Smith, Sr. Physical Security Inspector, Division of Reactor Safety
(DRS)

Approved by: Curtis J. Cowgill, Chief
Projects Branch 6
Division of Reactor Projects
Region I

SUMMARY OF FINDINGS

IR 05000423-01-04; on 04/01-05/12/01; Dominion Nuclear Connecticut, Inc., Millstone Nuclear Power Station; Unit 3. Licensee Identified Violations.

The inspection was conducted by resident and regional inspectors. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using IMC 0609 "Significance Determination Process" (SDP). Findings for which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violation. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at <http://www.nrc.gov/NRR/OVERSIGHT/index.html>.

A. Inspector Identified Findings

No findings of significance were identified.

B. Licensee Identified Violations

A violation of very low significance which was identified by the licensee has been reviewed by the inspectors. Corrective actions taken or planned by the licensee appear reasonable. This violation is listed in Section 4OA7 of this report.

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Report Details

SUMMARY OF UNIT 3 STATUS

The plant began the inspection period on April 1, 2001, operating at approximately 32 percent power, in the midst of a power ascension to 100 percent. The power ascension followed the completion of refueling outage number seven. On April 4, operators brought the plant to 100% power where it remained through the end of the inspection period on May 12.

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

1R04 Equipment Alignment

c. Inspection Scope

Following planned surveillances on the “A” train motor driven auxiliary feedwater pump, the inspector verified the correct alignment of the “A” train equipment. The inspector performed the partial walkdown by comparing actual equipment alignment to approved licensee piping and instrumentation diagram EM-130B and operating procedure OP3322, “Auxiliary Feedwater System”, to confirm correct system lineup.

The inspector also performed a walkdown of a portion of the “A” train charging pump cooling (CCE) system during a period of time that the “B” charging pump was in operation, but the “A” train was classified as the protected train for Unit 3 work control and operational considerations. The CCE operating procedure, OP 3330D, including the associated valve lineup forms, was used to verify the proper system component alignment and status.

Since the “A” and “B” trains of the CCE system are normally cross-connected, with valve actuations initiated upon certain accident signals to separate the redundant train functions, the inspector also reviewed the applicable emergency operating procedures (EOP) for maintaining or restoring a charging pump capability, given certain design-basis accident scenarios. The consistency of OP 3330D steps with the EOP directions for restoring the charging and CCE systems in post-accident recovery operations was discussed with the cognizant engineering and licensed-operator personnel.

d. Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

The inspector performed walkdowns of the west and east safety related switchgear rooms, Fire Areas CB-1 and CB-2, respectively, as well as the service building Fire Area SB-4, housing the chilled water system components. The inspector confirmed that fire detection and suppression equipment located in the areas were as specified in the Millstone 3 Fire Protection Evaluation Report. In the SB-4 area, a specific fire link-seal

was selected for verification of its fire service rating and qualification. In all the inspected areas, the inspector noted no degraded or out-of-service equipment that would require compensatory measures (i.e., hourly fire roves) to be implemented, in accordance with the Unit 3 Technical Requirements Manual.

Additionally, during backshift hours on April 10, 2001, the inspector observed the conduct of an unannounced fire drill involving a Fire Brigade response to a simulated electrical fire in the Unit 3 cable spreading area (CSA). The inspector reviewed the drill scenario, the observer/controller checklist, and the Unit 3 fire fighting strategy for a CSA fire. The drill performance was witnessed initially from the control room and subsequently in the CSA and outside the control building where the fire brigade command center was established. After the drill was terminated, the inspector attended the critique. The inspector later reviewed the fire brigade drill review and recommendations, which included the issuance of one condition report, CR-01-04382, that discussed some drill communication improvement recommendations.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification

a. Inspection Scope

The inspector observed a simulator exam conducted as part of licensed operator requalification training. The inspector observed operator use of emergency and abnormal operating procedures in response to a degrading and then failed reactor coolant pump seal. The inspector discussed the scenario and training objectives with training personnel and attended the trainees' critique following the scenario.

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation

a. Inspection Scope

The inspector reviewed licensee actions taken in response to the following condition reports (CR).

- CR-01-02172 Erratic governor operation during preparations to perform a partial load reject of the "B" emergency diesel generator
- CR-01-03643 Test failure occurred during the performance of the Train "A" diesel sequencer actuation logic test
- CR-01-03873 Train "B" residual heat removal heat exchanger flow control valve, 3RHS*HCV607, failed surveillance

- CR-01-04031 “A” reactor coolant pump standpipe high level alarm
& CR-01-04474

For each CR identified, the inspector reviewed the applicable system health report, corrective actions taken in response to the equipment problem, and maintenance rule functional failure determination. The inspector confirmed that the licensee appropriately tracked the occurrences against the systems’ performance criteria, both for functional failures and unavailability time.

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

a. Inspection Scope

The inspector noted that the licensee had calculated an “orange” online risk condition in the evaluation of the testing scheduled to be performed on the “B” emergency diesel sequencer while the unit was at 100 percent power. As this testing had been performed in the past without an “orange” condition being identified, the licensee’s risk assessment was discussed with the system engineer and the online risk reviewer. The inspector confirmed that the online risk tool had recently been updated to specifically include the diesel sequencer. The risk tool conservatively assumes that all emergency systems started by the sequencer are unavailable during the testing, leading to the calculated “orange” condition. The inspector confirmed that the licensee was aware of the online risk rationale and appropriately limited the time that the plant was in this configuration.

The inspector also reviewed the work planning and repair activities implemented online to address two emergent work items, both involving valve problems with process flow/containment isolation impact. The licensee conducted troubleshooting to identify the scope of the work required to address the identified problems, one involving two valves in the reactor plant sampling system (reference: condition reports, CR 01-04208 & 01-04552) and the other involving a main feedwater isolation valve (reference: CR-01-04048). The inspector discussed the scope of the troubleshooting and repair activities, as well as the risk considerations and regulatory ramifications, with the cognizant operations and system engineering personnel.

The inspector confirmed an appropriate level of licensee Nuclear Oversight and Regulatory Affairs involvement in the control of the repairs and post-maintenance work activities. Both work areas were examined after completion of the work to evaluate the condition and status of the affected valves and assess the impact upon other safety-related components in proximity. The inspector also used the field observations to verify that the licensee had correctly documented the appropriate risk and regulatory details in the referenced CR.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations

a. Inspection Scope

The following operability determinations (ODs) 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 and technical requirements manual actions were met. In addition the inspector walked down the affected components to ensure equipment conditions had not worsened since the operability determinations were written.

- MP3-041-01 Steam observed exiting “B” and “D” main steam isolation valve bonnet closure studs
- MP3-042-01 Ultrasonic testing indicated water in piping upstream of turbine driven auxiliary feedwater (TDAFW) pump turbine steam supply drain traps which could be causing the lifting of the TDAFW turbine sentinel relief valve
- MP3-045-01 A steam generator blowdown sample system containment isolation valve declared inoperable due to the loss of open position indication
- MP3-046-01 Leaking hydraulic fluid form a relief valve block assembly on a main feedwater isolation valve

For the latter two ODs, the inspector also evaluated the repair activities implemented to restore the operable, but degraded valves to a fully qualified condition. The validity of the technical bases documented in each of these ODs was further assessed with respect to the information gained from the field work performed on the subject valves.

b. Findings

No findings of significance were identified.

1R19 Post Maintenance Testinga. Inspection Scope

The inspector reviewed selected activities associated with the conduct of the following post maintenance testing (PMT) surveillances:

- SP 3609.9 Quench Spray (QSS) Pumps P3A & P3B Header Isolation Valves Stroke Time Test
- SP 3613A.3 Hydrogen Recombiner (HCS) Valve Operability

For the QSS valve strokes, the inspector reviewed the newly developed in-service testing stroke time criteria. Based upon replacement of the valves, both the open and closed reference values changed slightly. The inspector verified that the acceptance criteria for the valve open and closed design basis limits, which had previously been documented incorrectly, were also revised to reflect the licensee's design calculations and the containment isolation times listed in the Unit 3 Final Safety Analysis Report.

The inspector observed portions of the valve testing in progress on the "B" HCS train. The conduct of this evolution was discussed with plant equipment operators in the field and the operations shift manager. Subsequently, the inspector verified restoration of the system, including the locked valve alignment, to the normal operational configuration. The "A" HCS valves were similarly checked for field conditions and any evidence of degradation that could adversely affect these remotely-operated, articulating manual valves. The inspector discussed the field observations and overall system condition with the HCS system engineer.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testinga. Inspection Scope

The inspector reviewed licensee performance relating to the following surveillance tests:

- SP 31447VB Trip Actuating Device Operational Test for 4KV Bus 34D Undervoltage
- SP 3622.1 Auxiliary Feedwater (AFW) Pump 3FWA*P1A Operational Readiness Test
- SP 3610A.1 Residual Heat Removal (RHR) Pump 3RHS*P1A Operational Readiness Test
- SP 3630A.6 Reactor Plant Component Cooling Water (CCP) Pump 3CCP*P1C Operational Readiness Test

The components tested and functions evaluated, relative to the four surveillance procedures listed above, all rank within the top twelve Unit 3 systems that contribute most to the prevention of reactor core damage from a risk perspective.

The AFW testing was observed in the control room to confirm performance of the test in accordance with approved procedures. Selected prerequisites and restoration activities were independently verified. The acceptance criteria for both the undervoltage testing and a selected section of the RHR test were discussed with the respective system engineers to clarify compliance with technical specification surveillance requirements. For the CCP test, the inspector also verified that the periodicity of the surveillance activities was consistent with the discussion in the Unit 3 Final Safety Analysis Report, regarding engineered safety features actuation logic test requirements.

The completed data sheets were reviewed for all tests to verify the equipment met procedural acceptance criteria and was operable in accordance with the applicable technical specification requirements.

b. Findings

No findings of significance were identified.

Emergency Preparedness [EP]

1EP6 Drill Evaluation

a. Inspection Scope

The inspector observed a licensed operator requalification exam which the licensee had preselected to be included in the emergency preparedness drill performance indicator (PI). The inspector reviewed the licensee's Emergency Planning Services Department Instruction (EPDI) 18, Administration of NRC Performance Indicators, and industry guidance provided by NEI 99-02, Regulatory Assessment Performance Indicator Guideline, and discussed the performance expectations and results with the evaluator and emergency preparedness process owner to confirm correct implementation of the PI program. The licensee appropriately credited one correct event classification in their PI data.

b. Findings

No findings of significance were identified.

3. SAFEGUARDS

Physical Protection [PP]

3PP4 Security Plan Changes

Refer to NRC Inspection Report 05000336/2001-004, Section 3PP4 for specific details.

4. OTHER ACTIVITIES [OA]

4OA6 Meetings, including Exit

.1 Resident Inspector Exit Meeting

The inspectors presented the inspection results to the Vice President and Senior Nuclear Executive - Millstone and other members of licensee management at the conclusion of the inspection. The licensee acknowledged the findings presented.

The inspectors asked the licensee whether any materials examined during this inspection should be considered proprietary. No proprietary information was identified.

4OA7 Licensee Identified Violations

Refer to NRC Inspection Report 50-336/01-04, Section 4OA7 for specific details.

ATTACHMENT 1**SUPPLEMENTAL INFORMATION**a. List of Items Opened, Closed and DiscussedOpened and Closed During this Inspection

50-336,423/01-04-05	NCV	Protected Area Gate Open without Compensatory Actions (4OA7)
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Previously Items Closed

50-245,336,423/01-01-00	LER	Protected Area Gate Open without Compensatory Actions (4OA7)
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Discussed

None

b. List of Acronyms Used

AFW	auxiliary feedwater
CCE	charging pump cooling system
CCP	component cooling water
CR	condition report
CSA	cable spreading area
EOP	emergency operating procedures
EPDI	Emergency Planning Services Department Instruction
HCS	hydrogen recombiner
ODs	operability determinations
PI	performance indicator
PMT	post maintenance testing
QSS	quench spray
RHR	residual heat removal
SDP	significance determination process
TDAFW	turbine driven auxiliary feedwater