

January 31, 2005

Mr. David A. Christian  
Sr. Vice President and Chief Nuclear Officer  
Dominion Resources  
5000 Dominion Boulevard  
Glenn Allen, VA 23060-6711

SUBJECT: MILLSTONE POWER STATION UNIT 2 AND UNIT 3 - NRC INTEGRATED  
INSPECTION REPORT 05000336/2004008 AND 05000423/2004008

Dear Mr. Christian:

On December 31, 2004, the U.S. Nuclear Regulatory Commission (NRC) completed inspections at your Millstone Power Station Units 2 and 3. The enclosed integrated inspection report documents the inspection findings, which were discussed on January 28, 2005, with Mr. J. Alan Price and other members of your staff.

The 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.

This report documents one self-revealing finding of very low safety significance (Green). This finding was determined to involve a violation of NRC requirements. However, because of its 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 contest this non-cited violation, you should provide a response within 30 days of the date of this inspection report, 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 Power Station.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response (if any) will be available electronically for public inspection in the

Mr. D. A. Christian

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NRC Public Document Room or from the Publicly Available Records component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

*/RA/*

Paul G. Krohn, Chief  
Projects Branch 6  
Division of Reactor Projects

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

Enclosure: Inspection Report 05000336/2004008 and 05000423/2004008  
w/Attachment: Supplemental Information

cc w/encl:

J. A. Price, Site Vice President - Millstone  
C. L. Funderburk, Director, Nuclear Licensing and Operations Support  
D. W. Dodson, Supervisor, Station Licensing  
L. M. Cuoco, Senior Counsel  
C. Brinkman, Manager, Washington Nuclear Operations  
W. Meinert, Massachusetts Municipal Wholesale Electric Company  
First Selectmen, Town of Waterford  
V. Juliano, Waterford Library  
J. Markowicz, Co-Chair, NEAC  
E. Woollacott, Co-Chair, NEAC  
E. Wilds, Director, State of Connecticut SLO Designee  
J. Buckingham, Department of Public Utility Control  
G. Proios, Suffolk County Planning Dept.  
R. Shadis, New England Coalition Staff  
G. Winslow, Citizens Regulatory Commission (CRC)  
S. Comley, We The People  
D. Katz, Citizens Awareness Network (CAN)  
R. Bassilakis, CAN  
J. M. Block, Attorney, CAN

Distribution w/encl: VIA E-MAIL:

- S. Collins, RA
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- V. Nerses, PM, NRR
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- T. Madden, OCA
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**U.S. NUCLEAR REGULATORY COMMISSION**

**REGION I**

Docket No.: 05000336, 05000423

License No.: DPR-65, NPF-49

Report No.: 05000336/2004008 and 05000423/2004008

Licensee: Dominion Nuclear Connecticut, Inc.

Facility: Millstone Power Station, Unit 2 and Unit 3

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

Dates: October 1, 2004 - December 31, 2004

Inspectors: S. M. Schneider, Senior Resident Inspector, Division of Reactor Projects (DRP)  
S. R. Kennedy, Resident Inspector, DRP  
K. A. Mangan, Resident Inspector, DRP  
B. A. Bickett, Reactor Inspector, DRS  
R. L. Fuhrmeister, Senior Reactor Inspector, DRS  
J. T. Furia, Senior Health Physicist, DRS  
E. H. Gray, Senior Reactor Inspector, DRS  
S. G. Iyer, Project Engineer, DRP  
K. M. Jenison, Senior Project Engineer, DRP  
D. C. Johnson, Reactor Engineer, DRP  
N. T. McNamara, Emergency Preparedness Inspector, DRS  
T. A. Moslak, Health Physicist, DRS  
D. M. Silk, Senior Emergency Preparedness Inspector, DRS

Accompanied by: N. S. Sieller, Nuclear Safety Professional, DRP

Approved by: Paul G. Krohn, Chief  
Projects Branch 6  
Division of Reactor Projects

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## SUMMARY OF FINDINGS

IR 05000336/2004008, 05000423/2004008; 10/01/2004 - 12/31/2004; Millstone Power Station, Unit 2 and Unit 3; Event Followup.

The report covered a 3-month period of inspection by resident inspectors and announced inspections by regional inspectors. One (Green) non-cited violation (NCV) was identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

### A. NRC-Identified and Self-Revealing Findings

Cornerstone: Occupational Radiation Safety

- Green. Dominion did not use process or other engineering controls, to the extent practical, to control the concentration of radioactive material in air during handling of radioactive spent Unit 2 filters on September 29, 2004. As a result, elevated concentrations of radioactive material in air were generated and two workers sustained unplanned intakes of airborne radioactive material. This was a self-revealing, non-cited violation of 10 CFR 20.1701, "Respiratory Protection and Controls to Restrict Internal Exposure in Restricted Areas, Use of Process or Other Engineering Controls."

The finding was greater than minor, in that it was associated with the program and processes for exposure control and monitoring attribute of the Radiation Safety Cornerstone attributes and did affect the objective of the Cornerstone. The finding was determined to be of very low risk significance (Green) using NRC Manual Chapter 0609, Appendix C, in that it involved an ALARA exposure control finding, but the three year rolling average collective occupational dose for Millstone did not exceed 135 person-rem. Dominion suspended the work activity and initiated a root cause investigation. This finding was related to the cross-cutting area of Human Performance in that Dominion did not use process or engineering controls, to the extent practical, resulting in exposure of two workers to elevated concentrations of airborne radioactive material. (Section 4OA3.1)

### B. Licensee-Identified Violations

None.

## REPORT DETAILS

### Summary of Plant Status

Unit 2 began this inspection period operating at approximately 100 percent power. On November 1, 2004, the Unit reduced power to 99 percent to maintain condenser differential temperature within limits during maintenance on the circulating water system. Over the next several days, power was gradually reduced to 90 percent. On November 5, a rapid power reduction to 50 percent was performed in response to fouling of the condenser water boxes. Unit 2 reached 93 percent power on November 8 and stayed at that power level for several days while "D" circulating water pump maintenance was completed. Unit 2 reduced power below 90 percent to support "B" circulating water bay maintenance and then returned to full power operation on November 13, 2004. Unit 2 remained at or near full power for the remainder of the inspection period.

Unit 3 operated at or near 100 percent power for the duration of the inspection period except for December 1, 2004, when power was reduced to 77 percent due to failure of a screen wash pump strainer. Unit 3 returned to full power operations on December 2, 2004, and remained at or near full power for the remainder of the inspection period.

### **1. REACTOR SAFETY**

#### **Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity**

#### 1R01 Adverse Weather Protection (71111.01 - One Unit 2 Sample and Three Unit 3 Samples)

##### a. Inspection Scope

##### Seasonal Site Inspection (One Unit 3 Sample)

The inspectors performed a review of severe weather preparations during the onset of the winter season to evaluate the site's readiness for seasonal susceptibilities. The inspectors reviewed Dominion's preparations/protection for severe weather and its impact on the protection of safety-related systems, structures and components. The inspection was intended to ensure that the indicated equipment, its instrumentation, and its supporting structures were configured in accordance with Dominion's procedures and that adequate controls were in place to ensure functionality of the systems. The inspectors reviewed the Unit 3 Final Safety Analysis Report (FSAR) and Technical Specifications and compared the analysis with procedure requirements to verify that procedures were consistent with the FSAR. The inspectors verified that operator actions defined in the adverse weather procedures maintained readiness of essential systems and that adequate operator staffing was specified. Documents reviewed during the inspection are listed in the Attachment.

##### System Inspection (One Unit 2 Sample and Two Unit 3 Samples)

The inspectors reviewed one sample of the readiness of the Unit 2 Condensate Storage Tank and Refueling Water Storage Tank systems, and two samples of the readiness of

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the Unit 3 refueling water storage tank and demineralized water storage tank systems, for extreme weather conditions, specifically, cold weather preparation. The inspection was intended to ensure that the indicated equipment, its instrumentation, and its supporting structures were configured in accordance with Dominion procedures and that adequate controls were in place to ensure functionality of the system. The inspectors reviewed licensee procedures and walked down the system. Documents reviewed during the inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04)

a. Inspection Scope

.1 Partial System Walkdowns (71111.04Q - Three Unit 2 Samples and Three Unit 3 Samples)

The inspectors performed six partial system walkdowns during this inspection period. The inspectors reviewed the documents listed in the Attachment to determine the correct system alignment. The inspectors conducted a walkdown of each system to verify that the critical portions of selected systems were correctly aligned in accordance with these procedures and to identify any discrepancies that may have had an affect on operability. The inspectors verified that equipment alignment problems that could cause initiating events, impact mitigating system availability or function, or affect barrier functions, were identified and resolved. The following systems were reviewed based on risk significance for the given plant configuration:

Unit 2

- Partial equipment alignment of motor-driven auxiliary feedwater pump during turbine-driven auxiliary feedwater pump maintenance and testing, November 9, 2004;
- Partial equipment alignment of the "A" emergency diesel generator (EDG) during maintenance on the "B" EDG, Novemebr 17, 2004; and
- Partial equipment alignment of the "B" and "C" high pressure safety injection (HPSI) systems during maintenance on the "A" HPSI and "A" charging pumps, December 2, 2004.

Unit 3

- Partial equipment alignment of the "B" EDG during the "A" EDG maintenance, October 12, 2004;
- Partial equipment lineup of vital bus 34C during vital bus 34D surveillance testing, October 28, 2004; and



- Partial equipment alignment of service water train "A" during service water train "B" maintenance, November 8, 2004.

b. Findings

No findings of significance were identified.

.2 Complete System Walkdown. (71111.04S - One Unit 3 Sample)

a. Inspection Scope

The inspectors completed a detailed review of the alignment and condition of the Unit 3 Residual Heat Removal (RHR) system. The inspectors conducted a walkdown of the system to verify that the critical portions, such as valve positions, switches, and breakers, were correctly aligned in accordance with procedures and determined if any discrepancies had an affect on operability. The inspectors used Dominion's procedures and other documents listed in the attachment to verify proper system alignment. The inspectors also conducted a review of outstanding maintenance work orders to verify that the deficiencies did not significantly affect the RHR system function. The inspectors discussed system health with the system engineer and reviewed the condition report (CR) database to verify that equipment alignment problems were being identified and appropriately resolved. Additionally, the inspectors reviewed the actions performed by Dominion specifically related to air found in suction and discharge system piping.

b. Findings

The inspectors observed Unit 3 Operations personnel response and Engineering Department activities following the identification of excessive air in the "A" train of the RHR system on November 12, 2004. Excessive air in this system was originally identified on May 28, 2004. At that time, a root cause team was established and unresolved item (URI) 05000423/2004006-02 was issued to track NRC evaluation of Dominion's investigation and corrective actions. This URI was subsequently closed in NRC Inspection Report 0500423/2004007 and non-cited violation (NCV) 05000423/2004007-08 was generated to document a violation of Technical Specification 6.8.1, Written Procedures, for the failure to establish and implement adequate procedures to prevent the introduction of air into the RHR system during reactor coolant system fill and vent and to detect this air during RHR system vent and valve lineup activities. Since the identification of additional air in this system on November 12, 2004, Dominion has continued to troubleshoot and investigate corrective actions to resolve the existence of air in the RHR system, actions not completed by the end of this inspection period. An Unresolved Item will track this issue pending NRC evaluation of Dominion's completed investigation and assignment of corrective actions.  
**(URI) 05000423/2004008-01**

1R05 Fire Protection (71111.05)Quarterly Sample Review (71111.05Q - Six Unit 2 Samples and Six Unit 3 Samples)a. Inspection Scope

The inspectors performed twelve walkdowns of fire protection areas during the inspection period. The inspectors reviewed Dominion's fire protection program to determine the required fire protection design features, fire area boundaries, and combustible loading requirements for the selected areas. The inspectors walked down these areas to assess Dominion's control of transient combustible material and ignition sources. In addition, the inspectors evaluated the material condition and operational status of fire detection and suppression capabilities, fire barriers, and any related compensatory measures. The inspectors then compared the existing conditions of the inspected fire protection areas to the fire protection program requirements to ensure all program requirements were being met. Documents reviewed during the inspection are listed in the Attachment. The fire protection areas reviewed included:

Unit 2

- East Direct Current (DC) Switchgear Room - Auxiliary Building, 14'-6" Elevation - (Fire Area A-20)
- Cable Vault - Auxiliary Building, 25'-6" Elevation - (Fire Area A-24)
- Fire Pumphouse, 14'-6" Elevation - (Fire Area FP-2)
- General Area - Turbine Building, 14'-6" Elevation - (Fire Area T-1, Zone A)
- Reactor Building Closed Cooling Water (RBCCW) Pump and Heat Exchanger Area - Auxiliary Building, 25'-6" Elevation (Fire Area A-1, Zone B)
- Intake Structure Pump Room, 14'6" Elevation - (Fire Zone I-1, Zone A)

Unit 3

- North Residual Heat Removal Exchanger Cubicle, -6" Elevation - (Fire Area ESF-6, Zone N/A)
- North Motor-Driven Auxiliary Feed Pump Cubicle, 24'-6" Elevation - (Fire Area ESF-8, Zone N/A)
- Intake Structure, South Floor Area - (Fire Area CSW-1)
- Intake Structure, North Floor Area - (Fire Area CSW-2)
- Intake Structure, East Service Water Cubicle - (Fire Area CSW-3)
- Intake Structure, West Service Water Cubicle - (Fire Area CSW-4)

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11Q - One Unit 2 Sample and One Unit 3 Sample)

a. Inspection Scope

The inspectors observed one sample of Unit 2 licensed operator requalification training on October 20, 2004, and one sample of Unit 3 licensed operator requalification training on November 3, 2004. The inspectors verified that the training evaluators adequately addressed that the applicable training objectives had been achieved. Documents reviewed during the inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12)

Routine Maintenance Effectiveness Inspection (71111.12Q - One Unit 2 Sample and One Unit 3 Sample)

a. Inspection Scope

The inspectors reviewed one Unit 2 and one Unit 3 sample of Dominion's evaluation of degraded conditions, involving safety-related structures, systems and/or components for maintenance effectiveness during this inspection period. The inspectors reviewed licensee implementation of the Maintenance Rule (MR), 10 CFR 50.65, and verified that the conditions associated with the referenced CRs were appropriately evaluated against applicable MR functional failure criteria as found in licensee scoping documents and procedures. The inspectors also discussed these issues with the system engineers and maintenance rule coordinators to verify that they were appropriately tracked against system performance criteria and that the systems were appropriately classified in accordance with MR implementation guidance. Documents reviewed during the inspection are listed in the Attachment. The following conditions were reviewed:

Unit 2

- Excessive leakage from "A" reactor building closed-loop cooling water pump (CR-04-10105)

Unit 3

- Functional failure determination for "A" safety injected high-head (SIH) pump leakage (CR-04-09890)

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation (71111.13 - Three Unit 2 Samples and Four Unit 3 Samples)

a. Inspection Scope

The inspectors reviewed seven samples concerning the adequacy of maintenance risk assessments of emergent and planned activities during the inspection period. The inspectors utilized the Equipment Out of Service (EOOS) quantitative risk assessment tool to evaluate the risk of the plant configurations and compared the results to Dominion's stated risk. The inspectors verified that Dominion entered appropriate risk categories and implemented risk management actions as necessary. Documents reviewed during the inspection are listed in the Attachment. The inspectors verified the conduct and adequacy of scheduled maintenance and emergent risk assessments for plant conditions affected by the conduct of the following maintenance and testing activities:

Unit 2

- Work schedule for the week of October 18, 2004, including maintenance and testing on the reserve station service transformer, "C" reactor building closed cooling water pump inservice test (IST), auto auxiliary feedwater functional test, and degraded intake structure conditions;
- Emergent risk assessment of unplanned down power due to red intake structure condition combined with increasing amps on the "A" and "C" circulating water pumps on November, 11, 2004; and
- Emergent risk assessment of increased grid risk combined with "B" circulating water bay maintenance on November 8, 2004.

Unit 3

- Work schedule for the week of October 4, 2004, including maintenance and testing on the grid due to solar disturbances;
- Work schedule for the week of October 25, 2004, including maintenance and testing on the 34D bus, "B" chill water pump, "B" auxiliary building underdrain sump replacement;
- Emergent risk assessment of "A" safety injection pump inoperability on November 4, 2004; and
- Work schedule for the week of December 6, 2004, including maintenance and testing on the "A" EDG for instrument calibration, "F" circulating water pump, and vital power supply breaker.

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Non-Routine Plant Evolutions and Events (71111.14 - Three Unit 2 Samples and Two Unit 3 Samples)

a. Inspection Scope

The inspectors reviewed five samples of events that demonstrated personnel performance in coping with non-routine evolutions and transients. The inspectors observed operations in the control room and reviewed applicable operating and alarm response procedures, technical specifications, plant process computer indications, and control room shift logs to evaluate the adequacy of Dominion's response to these events. The inspectors also verified the events were entered into the corrective action program to resolve identified adverse conditions. Documents reviewed during the inspection are listed in the Attachment.

Unit 2

- On November 1, 2004, Operations personnel responded to an increasing circulating water temperature differential above the State of Connecticut limit of 32EF. During planned maintenance activities on the "D" circulating water pump/bay, Operations personnel noted that circulating water temperature differential was increasing to above the limit of 32EF. Since the maintenance was expected to last the week and exceeding 32EF on consecutive days is a violation of the State of Connecticut discharge permit, operators decided to reduce power to lower the circulating water temperature differential. Operators briefed the load change procedure and reduced reactor power to approximately 97 percent power, which reduced the circulating water temperature differential to below 32EF.
- On November 5, 2004, Operations personnel responded to increasing motor ampere indications on both "A" and "C" circulating water pumps. During planned maintenance activities on the "D" circulating water pump/bay, Operations personnel noted that the "A" and "C" circulating water pump motor amps were increasing. This was evaluated to be due to degrading intake structure conditions from high winds and high seas. Operators reduced power to 50 percent to backwash the "A" circulating water pump/bay and to isolate and then cross-connect the "C" and "D" bays. Both actions were successful in reducing the "A" and "C" circulating water pump amps to normal. Dominion remained at 50 percent power to minimize the likelihood of a plant transient while the "D" circulating water pump was under repair.
- On November 30, 2004, Operators responded to a grid transient. The transient affected both units. See the Unit 3 discussion below for additional details.

### Unit 3

- On November 12, 2004, Operations personnel responded to indications of excessive air in the "A" RHR system. Operations responded by declaring the "A" RHR train inoperable. A troubleshooting plan was developed and "A" RHR pump runs, venting evolutions and ultrasonic testing were conducted over the next several days. An operability determination was generated on November 15, 2004, which determined that the "A" RHR system was operable with an existing air bubble in the "A" RHR heat exchanger. Dominion is conducting additional troubleshooting and investigation of the air in the "A" RHR system, which is being evaluated by the NRC (see Section 1R04.2).
- On November 30, 2004, the inspectors observed Unit 2 and Unit 3 operators respond to control room annunciators due to an electrical transient which resulted in switchyard breakers 7T and 8T opening and then immediately reclosing. The duration of the electrical transient was less than one second. Unit 2 and Unit 3 operators entered various alarm response and abnormal operating procedures in response to the annunciators. The transient caused a momentary loss of availability of the Unit 3 reserve service station transformer (RSST) resulting in a loss of one offsite power source for the duration of the transient. As a result, Unit 3 operators entered and exited T.S. 3.8.1.1, Limiting Condition For Operation, for one offsite line inoperable. Unit 2 operators observed a decrease in Unit 2 RSST output voltage; however, the output voltage remained above technical specification limits. Dominion subsequently determined that the most likely cause of the transient was a large bird flying into one of the offsite lines.

#### b. Findings

No findings of significance were identified.

### 1R15 Operability Evaluations (71111.15 - Four Unit 2 Samples and Four Unit 3 Samples)

#### a. Inspection Scope

The inspectors reviewed eight operability determinations associated with degraded or non-conforming conditions to ensure that operability was justified and that mitigating systems or those affecting barrier integrity remained available and no unrecognized increase in risk had occurred. The inspectors also reviewed compensatory measures to ensure that the measures were in place and were appropriately controlled. The inspectors reviewed licensee performance to ensure all related technical specification and Final Safety Analysis Report requirements were met. The inspectors reviewed the following degraded or non-conforming conditions:

Unit 2

- Inadequate support for 2-SW-189 (vital air conditioning (AC) switchgear room cooling coil pressure relief valve) (CR-04-09446);
- Failure to implement ventilation lineup in accordance with OP-2315D for the east DC switchgear room (CR-04-09789);
- "A" EDG combustion gas leakage into EDG jacket cooling water system (CR-04-09492, CR-03-00479); and
- Failure of the B51 motor control center (MCC) switchgear air conditioning unit (CR-04-10911).

Unit 3

- "A" SIH pump inoperable due to pump cuno filter oil leak (CR-04-09890);
- Primary resistance temperature detectors environmental qualifications (CR-04-10918);
- Charging system operability related to potential spurious closure of charging pump suction valves (CR-04-08450); and
- Excessive gas vented from "A" RHR system (CR-04-10129)

b. FindingsUnit 2

Description. On December 8, 2004, a condition report (CR-04-10911) identified a high-pitched whistling noise coming from the AC unit that cools the MCC B51 enclosure. The AC unit is a support system required to ensure that the safety-related MCC B51 remains below its design temperature limit. On December 9, 2004, the inspectors discussed the corrective actions planned to address the deficiency with Dominion. Dominion informed the inspectors that the "Fix It Now Team" would troubleshoot the AC unit and perform appropriate maintenance. Subsequently, on December 16, 2004, an operator reported that the unit was whistling and was not providing any cooling to the MCC B51 enclosure. Dominion declared the MCC B51 inoperable and entered multiple technical specification limiting condition of operation (LCO) requirements. The inspectors determined that maintenance was not performed on this AC unit following identification of the degraded condition on December 8, 2004. The inspectors determined the safety-related equipment MCC B51 supplies included power-operated relief valve block valves, direct current (DC) switchgear cooling fans, "A" emergency diesel generator ventilation, service water pump strainers, hydrogen analyzer and several emergency core cooling system motor operated valves. Dominion's troubleshooting efforts determined that the Freon level in the system was 50 percent of the required level as a result of leakage past an AC unit valve. Dominion repaired a leaking system valve, and recharged the system which restored operability to MCC B51. An Unresolved Item is being opened pending NRC evaluation of Dominion's operability determination, as the licensee's corrective actions were not completed within this inspection period. **(URI 05000336/2004008-02).**

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Unit 3

No findings of significance were identified.

1R16 Operator Work-Arounds (71111.16 - Two Unit 3 Samples)Selected Operator Work-aroundsa. Inspection Scope

The inspectors reviewed two risk significant operator work-arounds (OWAs) for Unit 3 during the inspection period. The inspectors evaluated the conditions to determine if there was any effect on human reliability in responding to an initiating event or any adverse effects on the function of mitigating systems. The work-arounds were also reviewed to ensure compliance with licensee documents which administratively control OWAs. Documents reviewed during the inspection are listed in the Attachment.

- Condensate demineralizer motor operated valve leaks required additional time for demineralizer isolation during rapid downpowers.
- Operator action required for degraded electric fire pump during no flow conditions.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19 - Three Unit 2 Samples and Five Unit 3 Samples)a. Inspection Scope

The inspectors reviewed eight samples of post-maintenance tests (PMT) during this inspection period. The inspectors reviewed these activities to determine whether the PMT adequately demonstrated that the safety-related function of the equipment was satisfied given the scope of the work specified and that operability of the system was restored. In addition, the inspectors evaluated the applicable test acceptance criteria to verify consistency with the associated design and licensing bases, as well as Technical Specification requirements. The inspectors also verified that conditions adverse to quality were entered into the corrective action program for resolution. Documents reviewed during the inspection are listed in the Attachment. The following maintenance activities and their post-maintenance tests were evaluated:

Unit 2

- Service water pipe through wall leak repair on supply to EDG (M2-04-09556);
- "A" service water pump and motor overhaul (M2-99-06020); and
- "A" feedwater regulating valve pressure adjustments (M2-04-11157).



Unit 3

- Station blackout emergency diesel generator air start solenoid replacement (M3-02-07511);
- Station blackout emergency diesel generator ventilation louver replacement (M3-04-11345);
- Service water pump strainer (M3-04-00859);
- "B" charging pump coupling inspection and greasing (M3-04-02659); and
- "B" RHR pump breaker testing (M3-02-09273).

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22 - Two Unit 2 Samples and Four Unit 3 Samples)a. Inspection Scope

The inspectors reviewed six samples of surveillance activities to determine whether the testing adequately demonstrated equipment operational readiness and its ability to perform the intended safety-related function. The inspectors attended pre-job briefs, verified that selected prerequisites and precautions were met and that the tests were performed in accordance with the procedural steps. Additionally, the inspectors evaluated the applicable test acceptance criteria to verify consistency with the associated design basis, licensing basis, and Technical Specification requirements and that the applicable acceptance criteria were satisfied. The inspectors also verified that conditions adverse to quality were entered into the corrective action program for resolution. Documents reviewed during the inspection are listed in the Attachment. The following surveillance activities were evaluated:

Unit 2

- "C" Charging Pump Operability Testing (SP-2601H); and
- Reactor Coolant System Leakage (SP-2602A).

Unit 3

- "A" EDG Air Start Valves Independence Test (SP-3646A.1);
- Containment Isolation Phase A (SP-3646A.8);
- "A" Boric Acid Transfer Pump Operational Readiness Test (SP-3604C.4); and
- Reactor Coolant System Leakage (SP-3680.1).

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications (71111.23 - One Unit 2 Sample and One Unit 3 Sample)a. Inspection Scope

The inspectors reviewed two temporary modification samples to verify that the modifications did not affect the safety function of important safety systems. The inspectors reviewed the temporary modifications and their associated 10 CFR 50.59 screening against the FSAR and Technical Specifications to ensure the modifications did not affect system operability or availability. Documents reviewed during the inspection are listed in the Attachment.

Unit 2

- Installation and Cold Weather Preparations of Temporary Instrument Air Compressor (OP-2332B).

Unit 3

- Test Equipment Connected to "A" RHR System during System Troubleshooting (M3-04-16780).

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness [EP]

1EP4 Emergency Action Level (EAL) and Emergency Plan Changes (IP 71114.04 - One Unit 2 Sample and One Unit 3 Sample)a. Inspection Scope

A regional in-office review was conducted of licensee-submitted revisions to the emergency plan, implementing procedures, and EALs which were received by the NRC during the period of October - December 2004. A thorough review was conducted of plan aspects related to the risk significant planning standards (RSPS), such as classifications, notifications and protective action recommendations. A cursory review was conducted for non-RSPS portions. These changes were reviewed against 10 CFR 50.47(b) and the requirements of Appendix E and they are subject to future inspections to ensure that the combination of these changes continue to meet NRC regulations. The inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 4, and the applicable requirements in 10 CFR 50.54(q) were used as reference criteria.

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation (71114.06 - Two Unit 2 Samples and One Unit 3 Sample)

a. Inspection Scope

The inspectors observed one sample of the conduct of Unit 2 licensed operator simulator training on October 20, 2004, including assessment of Classification and Notification for performance indicator submittals. The inspectors evaluated the Operations crew activities related to evaluating the scenario and making proper classification determinations. Additionally, the inspectors assessed the ability of Dominion's evaluators to adequately address operator performance deficiencies identified during the exercise.

The inspectors observed one sample of the conduct of a Unit 2 licensed operator training emergency planning drill involving the failure of the Unit 1 spent fuel pool liner on November 18, 2004. The inspectors observed emergency response organization performance at the site emergency operations center and technical support center. The inspectors verified that the classification, notification and protective action recommendations were accurate and timely. Additionally, the inspectors assessed the ability of Dominion's evaluators to adequately address operator performance deficiencies identified during the exercise. Documents reviewed during the inspection are listed in the Attachment.

The inspectors observed one sample of the conduct of Unit 3 licensed operator simulator training on November 3, 2004, including assessment of Emergency Planning for performance indicator submittals. The inspectors observed the Operations crew performance at the simulator and the emergency response organization performance at the site emergency operations center and technical support center. The inspectors verified that the classification, notification and protective action recommendations were accurate and timely. Additionally, the inspectors assessed the ability of Dominion's evaluators to adequately address operator performance deficiencies identified during the exercise. Documents reviewed during the inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

**2. RADIATION SAFETY**

Cornerstone: Public Radiation Safety [PS]

2PS3 Radiological Environmental Monitoring Program (REMP) (71122.03)

a. Inspection Scope (Nine Samples)

The inspector reviewed the current Annual Environmental Monitoring Report and Dominion assessment results to verify that the REMP was implemented as required by

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Technical Specifications (TS) and the radioactive effluent monitoring offsite dose calculation manual (REMODOCM) and for changes to the REMODOCM with respect to environmental monitoring, commitments in terms of sampling locations, monitoring and measurement frequencies, land use census, interlaboratory comparison program, and analysis of data; the REMODOCM to identify environmental monitoring stations; Dominion self-assessments, audits, licensee event reports, and interlaboratory comparison program results; the FSAR for information regarding the environmental monitoring program and meteorological monitoring instrumentation; and the scope of Dominion's audit program to verify that it meets the requirements of 10 CFR 20.1101.

The inspector walked down eight air particulate and iodine sampling stations; two seawater collection stations; two soil sampling stations; three aquatic sediment collection stations; and, thirteen thermoluminescent dosimeter (TLD) monitoring stations and determined that they were located as described in the REMODOCM and determined the equipment material condition to be acceptable.

The inspector observed the collection and preparation of a variety of environmental samples (listed above) and verified that environmental sampling was representative of the release pathways as specified in the REMODOCM and that sampling techniques were in accordance with procedures.

Based on direct observation and review of records, the inspector verified that the meteorological instruments were operable, calibrated, and maintained in accordance with guidance contained in the FSAR, NRC Safety Guide 23, and Dominion procedures. The inspector verified that the meteorological data readout and recording instruments in the control room and at the tower were operable.

The inspector reviewed each event documented in the Annual Environmental Monitoring Report which involved a missed sample, inoperable sampler, lost TLD, or anomalous measurement for the cause and corrective actions. The inspector conducted a review of Dominion's assessment of any positive sample results.

The inspector reviewed any significant changes made by Dominion to the REMODOCM as a result of changes to the land census or sampler station modifications since the last inspection. The inspector also reviewed technical justifications for any changed sampling locations and verified that Dominion performed the reviews required to ensure that the changes did not affect its ability to monitor the impacts of radioactive effluent releases on the environment.

The inspector reviewed the calibration and maintenance records for all air samplers. The inspector reviewed the results of Dominion's contractor interlaboratory comparison program to verify the adequacy of environmental sample analyses performed by Dominion's contractor; Dominion's quality control evaluation of the interlaboratory comparison program and the corrective actions for any deficiencies; Dominion's determination of any bias to the data and the overall effect on the REMP; and quality assurance (QA) audit results of the program to determine whether Dominion met the TS/REMODOCM requirements. The inspector verified that the appropriate detection

sensitivities with respect to TS/REMOCM were utilized for counting samples and reviewed the results of the vendor's quality control program including the interlaboratory comparison program to verify the adequacy of the vendor's program.

The inspector observed several locations where Dominion monitors potentially contaminated material leaving the radiologically controlled area, and inspected the methods used for control, survey, and release from these areas, including observing the performance of personnel surveying and releasing material for unrestricted use verifying that the work was performed in accordance with plant procedures.

The inspector verified that the radiation monitoring instrumentation was appropriate for the radiation types present and was calibrated with appropriate radiation sources. The inspector reviewed Dominion's criteria for the survey and release of potentially contaminated material; verified that there was guidance on how to respond to an alarm which indicates the presence of licensed radioactive material; and reviewed Dominion's equipment to ensure the radiation detection sensitivities were consistent with the NRC guidance contained in Inspection and Enforcement (IE) Circular 81-07 and IE Information Notice 85-92 for surface contamination and Health Physics Position-221 for volumetrically contaminated material. The inspector also reviewed Dominion's procedures and records to verify that the radiation detection instrumentation was used at its typical sensitivity level based on appropriate counting parameters and verified that Dominion had not established a "release limit" by altering the instrument's typical sensitivity through such methods as raising the energy discriminator level or locating the instrument in a high radiation background area.

b. Findings

No findings of significance were identified.

**4. OTHER ACTIVITIES [OA]**

4OA1 Performance Indicator Verification (71151 - Two Unit 2 Samples and Two Unit 3 Samples)

1. Reactor Safety Cornerstone

a. Inspection Scope

The inspectors reviewed four samples of Dominion submittals for the performance indicators (PIs) listed below to verify the accuracy of the PI data reported during the applicable period. The PI definitions and guidance contained in NEI 99-02, "Regulatory Assessment Indicator Guideline", Revision 2, were used to verify the basis for reporting each data element.

Unit 2 Reactor Safety Cornerstone

- Safety System Functional Failures

- Auxiliary Feedwater System Unavailability

#### Unit 3 Reactor Safety Cornerstone

- Reactor Coolant System Specific Activity
- Reactor Coolant System Leakage

The inspectors reviewed licensee event reports, monthly operating reports, control room shift logs, condition reports and NRC inspection reports to identify safety system equipment failures and unavailability that occurred in the fourth quarter of 2003 through the third quarter of 2004. Additionally, the inspectors reviewed the performance of the daily reactor leakage surveillance. The inspectors compared this information with Dominion's data reported to the NRC for the PIs listed above to verify that PI reporting and proximity to thresholds published on the NRC website were accurate. Documents reviewed during the inspection are listed in the Attachment.

#### b. Findings

No findings of significance were identified.

### 2. Occupational Radiation Safety (One Unit 2 Sample and One Unit 3 Sample)

#### a. Inspection Scope

The inspector reviewed implementation of the Occupational Exposure Control Effectiveness Performance Indicator (PI) Program. Specifically, the inspector reviewed recent Condition Reports, and associated documents, for occurrences involving locked high radiation areas, very high radiation areas, and unplanned exposures against the criteria specified in Nuclear Energy Institute (NEI) 99-02, Regulatory Assessment Performance Indicator Guideline, Revision 2, to verify that all occurrences that met the NEI criteria were identified and reported as performance indicators.

#### b. Findings

No findings of significance were identified.

### 3. Public Radiation Safety (One Unit 2 Sample and One Unit 3 Sample)

#### a. Inspection Scope

The inspector reviewed relevant effluent release reports for the period October 1, 2003, through October 1, 2004, for issues related to the public radiation safety performance indicator, which measures radiological effluent release occurrences that exceed 1.5 mrem/qtr whole body; 5.0 mrem/qtr organ dose for liquid effluents; 5mrad/qtr gamma air dose; 10 mrad/qtr beta air dose; and 7.5 mrem/qtr for organ dose for gaseous effluents.

The inspector reviewed the following documents to ensure Dominion met all requirements of the performance indicator from the fourth quarter 2003 to the third quarter 2004 (4 quarters):

- monthly projected dose assessment results due to radioactive liquid and gaseous effluent releases;
- quarterly projected dose assessment results due to radioactive liquid and gaseous effluent releases; and
- dose assessment procedures.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152)

1. Daily Review of Problem Identification and Resolution

a. Inspection Scope

As required by Inspection Procedure 71152, "Identification and Resolution of Problems", and in order to help identify repetitive equipment failures or specific human performance issues for followup, the inspectors performed a daily screening of items entered into Dominion's corrective action program. This review was accomplished by reviewing summary lists of each condition report, attending screening meetings, and accessing Dominion's computerized condition report database.

b. Findings

No findings of significance were identified.

2. Semi-Annual Trend Review

a. Inspection Scope

The inspectors performed a semi-annual review to identify trends that might indicate the existence of a more significant safety issue. The inspectors reviewed Unit 2 and Unit 3 performance indicator monthly reports, condition reports, system health reports, quality assurance audits, self assessment reports, maintenance reports, and NRC inspection reports and interviewed key personnel to evaluate if a trend existed.

b. Findings and Observations

Measuring and Test Equipment. The inspectors conducted a follow-up review of Dominion's Measuring and Test Equipment (M&TE) program originally discussed as a trend in NRC Inspection Report 2004006. Condition Report 03-00502 identified that Dominion could not account for 339 M&TE. A licensee investigation determined that

approximately one-third of the M&TE was located in the calibration lab, one-third in department storage areas, and one-third remained missing. Dominion conducted a usage review on the missing M&TE and determined that no safety-related equipment was adversely affected. Dominion has instituted a corrective action plan which included reducing the number of equipment issue satellite locations, reducing the M&TE inventory, and instituting a communications plan to brief and train the maintenance force on M&TE program requirements. The inspectors have observed some improvement in Dominion's M&TE program, particularly in the reduction of the number of lost M&TE. However, the inspectors have continued to note M&TE program issues documented in CRs, in particular, failures to follow M&TE program procedures. The inspectors will continue to follow M&TE process performance as part of the baseline inspection program.

Operability Determinations. No findings of significance were identified, however, the inspectors noted a trend related to problems Dominion has encountered in dispositioning degraded conditions at both units. The inspectors engaged Dominion on each of these issues during the inspection period. Examples over the past year contributing to this trend include:

- Operators did not recognize the significance of several steam generator code safeties that had lifted subsequent to reactor trips on Unit 2;
- Operators did not recognize that a failure of a vital inverter made the electrical train credited, as required by TSs, inoperable on Unit 3;
- Operators did not understand the potential significance of air found in the discharge piping of the RHR system on Unit 3;
- Operators' evaluation of an amount of air formed in the suction of RHR piping on Unit 3 was based on a maximum acceptable air volume that was not technically supported;
- Operators did not adequately consider the effects of small oil leaks on high head safety injection pumps on Unit 3;
- Operators and engineering determined that compensatory cooling measures installed in a direct current (DC) switchgear room on Unit 2 would ensure the availability of the switchgear, however, an existing technical evaluation stated that the installation did not ensure availability; and
- Operators utilized probabilistic risk assessment insights and the operability of other structures, systems and components to demonstrate operability of the charging system on Unit 3 under conditions in which the volume control tank suction valves could spuriously close.

The inspectors have found a lack of rigor by Dominion related to both the understanding of the effects of degraded conditions and the technical bases used to evaluate degraded conditions. These issues have resulted in both non-cited and minor violations. A contributing factor to these issues was the failure to appropriately apply Dominion's operability determination procedure, and these issues constitute a negative trend in the corrective action program. The resident inspectors will continue to follow these issues within the framework of the baseline inspection program.



3. Annual Sample Review (One Unit 2 Sample and Two Unit 3 Samples)

Unit 2

a. Inspection Scope

The inspectors completed one sample by selecting two condition reports (CR-03-00479 and CR-04-09492) for detailed review. The deficiency reports were associated with a failed surveillance test of the 2B Emergency Diesel Generator (EDG) and overflow of the 2B EDG jacket water system expansion tank. The reports were reviewed to ensure that the full extent of the issues were identified, appropriate evaluations were performed, and appropriate corrective actions were specified and prioritized. The inspectors evaluated the reports against the requirements of Dominion's corrective action program. Documents reviewed during the inspection are listed in the Attachment.

b. Findings and Observations

No findings of significance were identified.

Unit 3

a. Inspection Scope

Maintenance Rule. The inspectors selected condition reports CR-03-07003 and CR-03-12288 associated with the Unit 3 Maintenance Rule monitoring program for detailed review. Specifically, CR-03-07003 stated that Dominion station maintenance rule guidance was unclear and inconsistent in its approach to addressing Maintenance Rule run-to-failure components. As a result, Dominion developed station procedure MP-24-MR-FAP760, Revision 0, "Maintenance Rule Equipment Reliability Run-To-Failure." The inspectors evaluated the condition reports, MP-24-MR-FAP760, and other corrective actions, to ensure station personnel adequately identified, evaluated, and implemented appropriate corrective actions.

Reactor Coolant System (RCS) Leak. The inspectors selected one condition report for detailed review. The inspectors reviewed Dominion's corrective actions following isolation of the RCS letdown line that occurred on March 9, 2004, as detailed in CR-04-02256. The cause of the transient was deborating resin in the demineralizer outlet line being transported to, and clogging, the reactor coolant strainer. Although the manner in which the resin reached the demineralizer outlet line was not positively identified, Dominion determined that a likely cause was valve operation during the demineralizer fill and resin transfer process. To address this likely cause, Dominion processed a procedure change to more positively control valve lineups during this evolution. The CR was reviewed to ensure that the full extent of the issues were identified, an appropriate evaluation was performed, and appropriate corrective actions were specified and prioritized and completed. The inspectors evaluated the reports against the requirements of Dominion's corrective action program as delineated in MP-1-CAP-FAP01.1, "CR Screening and Review", and 10 CFR 50, Appendix B, "Quality

Assurance Criteria for Nuclear Power Plants and Fuel Processing Plants". Documents reviewed during the inspection are listed in the Attachment.

b. Findings and Observations

There were no findings of significance identified. During review of the reactor coolant system leak on the Unit 3 letdown line, the inspectors identified that Dominion did not document an evaluation of the overpressure transient on the letdown piping (300 psi piping was pressurized to 399 psi). Dominion generated AR 04-001546 and CR-04-10009 to document the failure to disposition this condition adverse to quality.

4. Public Radiation Safety

Unit 2 and Unit 3

a. Inspection Scope (One Unit 2 Sample and One Unit 3 Sample)

The inspector reviewed Dominion's licensee event reports, special reports, and audits related to the radiological environmental monitoring program performed since the last inspection. The inspector reviewed identified problems to ensure that they were entered into the corrective action program for resolution. The inspector also reviewed corrective actions affecting environmental sampling, sample analysis, or meteorological monitoring instrumentation.

b. Findings

No findings of significance were identified.

5. Cross-References to PI&R Findings Documented Elsewhere

Section 1R15 describes a self-revealing issue for failure to take effective corrective actions following the identification of a degraded air conditioner required to ensure the availability of the safety related B51 motor control center. The inspectors determined that Dominion did not address the degraded air conditioner in a timeframe that would have precluded an impact on the associated safety-related function. This issue is being treated as an URI pending NRC evaluation of Dominion's operability determination, as the licensee's corrective actions were not completed within this inspection period.

4OA3 Event Followup1. As Low As Reasonably Achievable (ALARA) Planning and Controls (71121.02)High Concentration of Airborne Radioactive Material During Filter Transfersa. Inspection Scope (One sample)

On December 3, 2004, the inspector reviewed and discussed a September 29, 2004, incident during which two individuals sustained intakes of airborne radioactive material while handling spent radioactive filters at Unit 2. The review was against the criteria contained in 10 CFR 20, Standards For Protection Against Radiation.

b. Findings

Introduction: A Green self-revealing non-cited violation of 10 CFR 20.1701, was identified associated with failure to use, to the extent practical, process or other engineering controls to control the concentrations of radioactive material in air during radioactive spent Unit 2 filter handling on September 29, 2004. As a result, elevated airborne radioactivity concentrations were generated and two workers, conducting the activity, sustained intakes of radioactive material.

Description: On September 29, 2004, Dominion conducted loading of radioactive spent Unit 2 filters into a High Integrity Container (HIC) in preparation for offsite disposal of the HIC and filters. During the loading, bagged filters were removed from a 55-gallon drum by a worker positioned in a structure above both the drum and the HIC. The temporary structure was equipped with an engineering control (ventilation system), that was designed to reduce the concentration of airborne radioactive materials in the work area. The ventilation system was not used. The worker reached into the drums, with a long handled tool, and lifted each bag up into the structure where the bag was surveyed by a radiation protection technician. The bags were then opened and the filters were dropped into the HIC.

The ventilation system was not used during the loading activity on September 29, 2004, because radiation protection personnel believed the system created noise making it difficult for workers to communicate. In addition, the filters were assumed to be wet making the likelihood of airborne contamination minimal. Further, the same task was previously conducted on September 21, 2004, during which the ventilation system was not operated with no significant consequence.

During handling and dropping of filters into the HIC on September 29, 2004, the workers noticed a dust cloud come up from the HIC. The two workers (worker and radiation protection technician) exited the structure and were found to have facial contamination. The air sample, taken throughout the job, was subsequently analyzed and found to indicate significant elevated airborne radioactivity concentrations in the work area. Subsequent intake analyses for the workers identified unplanned intakes of airborne radioactivity. A post-job debrief was held on September 29, 2004, and condition report

(CR-04-08868) was generated to evaluate the causes and identify corrective actions to address the incident.

Based on bioassay data, the final dose assessment indicated that the two individuals sustained a committed effective dose equivalent of 72 mrem and 45 mrem, respectively. The dose assessment process and results were independently reviewed by specialists contracted by Dominion, to confirm the calculations and methodology.

Analysis: Failure to use process or engineering controls, to the extent practicable, to control the concentration of radioactive material in air, as required by 10 CFR 20.1701, was a performance deficiency. Specifically, a requirement was not met by Dominion, which was reasonably within its ability to foresee and correct, and which should have been prevented. Further, Dominion did not use other controls, as specified in 10 CFR20.1702, to increase monitoring and limit intakes by other means.

The finding was not subject to traditional enforcement because the finding did not have any actual safety consequence, did not have the potential for impacting the NRC's ability to perform its regulatory function, and there were no willful aspects.

The finding was greater than minor because it was associated with the Occupational Radiation Safety Cornerstone attribute of programs and processes and did affect the objective of the Cornerstone to ensure adequate protection of the worker health and safety from exposure to radioactive material. Specifically, Dominion did not use process or engineering controls, to the extent practical, to control the concentration of radioactive material in air. This resulted in elevated airborne radioactive material concentrations during the filter handling. The finding was evaluated against criteria specified in NRC Manual Chapter 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," dated December 16, 2003, and was determined to be of very low safety significance (Green). Specifically, although the finding did involve an ALARA work controls issue, the three year rolling average collective occupational dose for Millstone was not greater than 135 person-rem for the site. Dominion stopped all filter transfers and initiated a root cause evaluation. This finding was related to the cross-cutting area of Human Performance in that Dominion did not use process or engineering controls, to the extent practical, resulting in exposure of two workers to elevated concentrations of airborne radioactive material.

Enforcement: 10 CFR 20.1701, requires that Dominion use to the extent practical, process or other engineering controls to control the concentration of radioactive material in air. Contrary to this requirement, on September 29, 2004, process or engineering controls; were not used, to the extent practical, resulting in the exposure of two workers to elevated concentrations of airborne radioactive material. Because this finding was of low safety significance (Green) and Dominion entered this finding into its corrective action program (CR-04-08868), this violation is being treated as a Non-Cited Violation (NCV) consistent with Section VI.A of the NRC Enforcement Policy, NUREG-1600. **(NCV 05000336/2004008-03)**

#### 4OA4 Cross-Cutting Aspects of Findings

##### Cross-Reference to Human Performance Findings Documented Elsewhere

Section 4OA3. describes a self-revealing finding for the failure to use process or engineering controls to the extent practical, which then resulted in the exposure of two workers to elevated concentrations of airborne radioactive material.

#### 4OA5 Other Activities

##### 1. Preoperational Testing of an Independent Spent Fuel Storage Installation (ISFSI) (IP 60854)

###### a. Inspection Scope

The inspector observed and evaluated welding and nondestructive testing (NDE) to determine whether the Dominion staff and their contractor had developed the capability to properly weld and perform NDE of the type of Dry Shielded Canister (DSC) to be used in storage of spent fuel at the Millstone site.

The inspector observed the welding equipment setup, welding of the mockup shield plug, visual weld examination, penetrant testing, Helium leak testing of the shield plug and the drain/vent port covers. Portions of the applicable work instructions and procedures were reviewed. The inspection included verification that the activities were accomplished in accordance with the commitments and requirements contained in the Safety Analysis Report (SAR), the NRC's Safety Evaluation Report (SER), and the Certificate of Compliance (C of C), as well as Dominion's QA program, and 10 CFR Part 72.

The inspector discussed the work steps and plans with those involved and reviewed portions of various controlling procedures (work packages) to verify their adequacy. The inspector also examined the welding equipment, observed welding in progress on a shield plug, reviewed welder qualification records and portions of the welding, and the NDE procedures.

###### b. Findings

No findings of significance were identified.

The inspector concluded that the capability to adequately weld and perform NDE of DSCs was demonstrated by the mockup work. Additional parts of the dry run (preoperational demonstration) are scheduled for early in 2005. At that time the welding contractor for Millstone plans to confirm the adequacy of the welding equipment, as set up in the DSC fuel loading area, by mockup welding.

2. (Closed) URI 05000336, 423/2004016-01, Timely Review of Available Dose Projection Information to be Incorporated Into a Protective Action Recommendation (PAR)

A potential finding was identified during Dominion's September 16, 2004, exercise critique in which an inaccurate PAR was not critiqued by Dominion. The PAR accuracy issue pertained to the decision to not recommend potassium iodine (KI) for the public in the PAR notification associated with the general emergency declaration. The KI recommendation was included in an upgraded PAR. This issue was unresolved pending NRC review of the applicability of the significance determination process for a PAR involving KI.

Upon closer review of the time line and applicable guidance by the inspector, it was determined that there was no finding associated with this issue. Although the NRC determined that the decision to recommend KI for the public could have been included in the initial PAR, Dominion was adhering to the written guidance in NEI 99-02, Revision 2, "Regulatory Assessment Performance Indicator Guidelines," regarding the scoring of PARs under the circumstances present in the exercise. Dominion did critique the fact that dose assessment personnel should have been more aggressive in communicating the initial dose projection results so that a confirmation could have been completed sooner. This issue is closed.

3. (Closed) URI 05000336/2004007-02: Application of 10 CFR 50.59 to a Permanent Modification of the Millstone Unit 2 Charging System.

This URI was opened to follow up concerns by the NRC inspectors related to the implementation of modifications to the Unit 2 charging system. During the review of the modification documents the inspectors did not find a discussion of the impact that these pipe and equipment modifications would have on the required or available net positive suction head (NPSH) of the charging system pumps. Subsequently, Dominion provided information to the inspectors that showed that the calculation for NPSH performed prior to the modification was still valid. The inspectors reviewed the data and confirmed that the modification performed on the system did not affect the pump NPSH and, therefore, the calculation showed sufficient NPSH for the charging pump. There was no effect because the modifications did not involve the suction flow path piping and due to the characteristics of the positive-displacement pump, there was no change in flow rate to the system as a result of changes made to the discharge piping. Dominion acknowledged that their procedures required that modifications that could affect NPSH be evaluated and that the modification package did not indicate that this review had been performed (CR-04-11049). However, because the NPSH for the pump was not affected there was no impact on the system or the ability to perform the intended function. Therefore, this issue was determined to be minor. The URI is closed.

4. Institute of Nuclear Power Operations (INPO) May 2004 Evaluation Report

The residents conducted a review of the final report of the INPO evaluation of the Dominion Millstone site conducted in May, 2004.

4OA6 Meetings, Including Exit

Preoperational Testing of an ISFSI (IP 60854) Exit Meeting Summary

The inspector presented the inspection results to Mr. P. Quinlan, and other members of the Dominion staff, at the conclusion of the inspection on December 2, 2004.

The inspector asked Dominion whether any materials examined during the inspection should be considered proprietary. Some proprietary items were reviewed during the inspection but no proprietary information is presented in this report.

Occupational and Public Radiation Safety Exit Meeting Summary

On December 3, 2004, the inspector presented the inspection results to Mr. Skip Jordan, and other members of the Dominion staff, who acknowledged the findings.

Integrated Report Exit Meeting Summary

On January 28, 2005, the resident inspectors presented the overall inspection results to Mr. J. Alan Price, and other members of his staff, who acknowledged the findings. The inspectors confirmed that proprietary information was reviewed during the inspection but no proprietary information is presented in this report.

ATTACHMENT: SUPPLEMENTAL INFORMATION

Enclosure

## SUPPLEMENTAL INFORMATION

### KEY POINTS OF CONTACT

#### Licensee Personnel

A. Armagno, Supervisor, Health Physics  
J. Armstrong, Fire Protection Engineer  
T. Cleary, Licensing Engineer  
D. Dodson, Manager, Licensing  
J. Doroski, Environmental Scientist  
E. Dundon, System Engineer  
J. Ely, Senior Engineer, Fuel Performance  
D. Godinez, Engineer Unit 3  
J. Hochdorfer, Operations Water Treatment Supervisor  
I. Haas, Supervisor, Exposure Control & Instrumentation  
A. Johnson, Supervisor, Radiation Protection Support  
A. Jordan, Director, Nuclear Engineering  
L. Kellog, Valve team Supervisor  
J. Laine, Manager Radiation Protection/Chemistry  
R. Leach, Health Physicist  
T. Moriarty, Technical Specialist  
F. Mueller, System Engineer  
J. Powers, System Engineer  
A. Price, Site Vice President - Millstone  
D. Regan, Supervisor, Radiation Protection Support (ALARA)  
S. Sarver, Director, Nuclear Station Operations & Maintenance  
S. Scace, Director, Nuclear Station Safety and Licensing  
J. Semancik, Operations Shift Manager  
W. Span, Site Engineering Supervisor  
M. Turner, System Engineer  
M. Wynne, Health Physicist

#### NRC Personnel

B. A. Bickett, Reactor Inspector, Division of Reactor Safety (DRS)  
R. L. Fuhrmeister, Senior Reactor Inspector, DRS  
J. T. Furia, Senior Health Physicist, DRS  
E. H. Gray, Senior Reactor Inspector, DRS  
S. G. Iyer, Project Engineer, Division of Reactor Projects, (DRP)  
K. M. Jenison, Senior Project Engineer, DRP  
D. C. Johnson, Reactor Engineer, DRP  
S. R. Kennedy, Resident Inspector, Millstone  
K. A. Mangan, Resident Inspector, Millstone  
N. T. McNamara, Emergency Preparedness Inspector, DRS  
T. A. Moslak, Health Physicist, DRS  
S. M. Schneider, Senior Resident Inspector, Millstone



N. S. Sieller, Nuclear Safety Professional, DRP  
 D. M. Silk, Senior Emergency Preparedness Inspector, DRS

### LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

#### Opened

05000336/2004008-01	URI	Air Entrainment of Residual Heat Removal System (1R04)
05000336/2004008-02	URI	Potential Inoperable Enclosure Air Conditioner (1R15)

#### Opened and Closed

05000336/2004008-03	NCV	High Concentration of Airborne Radioactive Material During Filter Transfers (4OA3.1)
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#### Closed

05000336, 423/2004016-01	URI	Timely Review of Available Dose Projection Information to be Incorporated Into a Protective Action Recommendation (4OA5.2)
05000336/2004007-02	URI	Application of 10 CFR 50.59 to a Permanent Modification of the Millstone Unit 2 Charging System (4OA5.3)

#### Discussed

05000423/2004006-02	URI	Air Entrainment of Residual Heat Removal System (1R04.2)
05000423/2004007-08	NCV	Dominion Failed to Establish Precautions and Prerequisites to Prevent Plant Configuration Changes That Could Lead to Air Entrainment in the RHR System (1R04.2)

### LIST OF DOCUMENTS REVIEWED

#### **Section 1R01: Adverse Weather Protection**

OP-2331, Revision 006-04, Plant Heating and Condensate Recovery System  
 OP-2350, Revision 013-04, Refueling Water Storage Tank Temperature Control  
 CR-04-10069, Maintenance Jacks TM 15, TM 112 on Turbine Building 14'6" Partially Inop.  
 C OP-200.13, Revision 000-02, Cold Weather Preparation  
 C OP 200.13, Revision 000-01, Cold Weather Preparations  
 CR-04-02102, Insulation for Heat Traced Instrument Air Lines Feeding 3QSS\*AOV27 and 3QSS\*AOV28 at RWST 3QSS\*TK1 Does Not Conform to Spec

CR-M3-97-4698, Nonsafety Grade Heat Tracing Installed on RWST Level Transmitter Lines  
OP-3352, Revision 012-03, Heat Tracing  
Unit 2 Final Safety Analysis Report  
Unit 3 Final Safety Analysis Report

**Section 1R04: Equipment Alignment**

Major Equipment Schedule

SP-2610C, Revision 012-08, AFW System Lineup Valve Operability and Operational Readiness Tests  
SP-3670.1, Revision 010-10, Control Room Surveillances  
SP-3670.2, Revision 010-06, Technical Specification Related PEO Rounds (Mode 1 to 4)  
SP-3670.1-002, Revision 010-03, SP-3670.1 Surveillance Form  
SP-3670.2-002, Revision 013-05, SP-3670.2 Surveillance Form  
OPS Form 2610C-002, Revision 019-05, Auxiliary Feedwater System Lineup Verification  
OP-3326, Revision 021-10, Service Water System  
OPS Form 3326-23, Service Water Electrical Checklist  
Drawing 25203-26015, Sh. 2 of 3, Revision 32, Piping & Instrument Diagram High Pressure Safety Injection Pumps  
Drawing 12179-EM-117A, Revision 23, Piping & Instrumentation Diagram Emergency Generator Fuel Oil System  
Drawing 12179-EM-133D, Revision 35, Piping & Instrumentation Diagram Service Water  
Drawing 12179-EM-133A, Revision 40, Piping & Instrumentation Diagram Service Water  
Drawing 12179-EM-133B, Revision 62, Piping & Instrumentation Diagram Service Water  
Drawing 12179-EM-116D, Revision 15, Piping & Instrumentation Diagram Emergency Diesel Generator "B" Starting Air System  
Drawing 12179-EM-116C, Revision 27, Piping & Instrumentation Diagram Emergency Diesel Generator "B" Lube Oil & Cooling Water  
Drawing 25203-26018, Revision 20, Piping & Instrumentation Diagram Emergency Diesel Generator H-7B Lube Oil, Air, and Jacket Water Cooling  
Drawing 25203-26018, Revision 21, Piping & Instrumentation Diagram Emergency Diesel Generator H-7B Lube Oil, Air, and Jacket Water Cooling  
Drawing 25203-26018, Revision 13, Piping & Instrumentation Diagram Diesel Generators Starting Air  
Drawing 12179-EM-112A, Piping & Instrumentation Diagram Low Pressure Safety Injection  
SP-EE-321, MP Electrical Setpoint Control Listing, Appendix E-4160V AC Switchgear Relay Settings-Generation Test Services  
Ltr. from Northeast Utilities to S. Stricker dated July 5, 1990 re: Review of Generation Electrical Engineering Calculation, GEE NL-033  
Memo dated November 14, 2004 re: Input Data to Support OD Related to CR-04-10129: Air Accumulation in the "A" RHR Train Local to 3SIL\*V875  
NUREG/CR-2792, An Assessment of Residual Heat Removal and Containment Spray Pump Performance Under Air and Debris Ingesting Conditions  
MP3-EV-04-0021, Revision 1, Attachment 1, Hancock Valve Test Results and Quantification of Gas Released from Venting Evolutions  
Memo Number NUCENG-04-115, Attachment 1 re: RHR function and mission time in the ECCS mode

EOP 35 ES-1.3, Revision 011, Transfer to Cold Leg Recirculation  
EOP 35 ES-1.2, Revision 014-01, Post LOCA Cooldown and Depressurization  
EOP 35 E-1, Revision 018, Loss of Reactor or Secondary Coolant  
OD-MP3-080-04, Revision 0, Operability Determination  
Electrical On-Line Diagrams

**Section 1R05 : Fire Protection**

Millstone Unit 2 Individual Plant Examination for External Events  
Millstone Unit 2 Fire Hazards Analysis  
Millstone Unit 2 Fire Hazard Analysis Boundary Drawing Areas, Figure 11, Revision 3  
Impell Report 05-0240-005, Revision 0, Zone 6 Intake Structure, Figure 5.6-1  
Unit 2 EPM Calc. No. 186, Revision 1, Combustible Loading Re-Analysis  
Unit 3 Fire Hazards Analysis  
Unit 3 Fire Protection Evaluation Report  
SP-3641D.5, Revision 008-05, Fire Damper Operability Verification  
Surveillance Form SP-3641D.5-001, Revision 008-06, Fire Damper Operability Verification  
FP-EV-98-0061, Revision 1, Lack of Barriers in the Appendix R Boundaries Separating the  
Turbine Building and the Service Water Cable Tunnels, Millstone Unit 2  
CR-04-11259, Fire Damp Testing and Repair Process does not Provide Adequate  
Documentation

**Section 1R11: Licensed Operator Requalification Program**

AOE #7, Revision 0, MP2 LORT Annual Operating Exam, Simulator Guide Approval Sheet  
Simulator Exam Guide  
Simulator Crew or Individual Evaluation Form  
Evaluation Standards  
Incident Report Form  
Emergency Action Level Tables

**Section 1R12: Maintenance Effectiveness**

CR-04-09890, 3SIH\*PIA oil leakage will exceed the oil reservoir capacity within the SIH pump  
design mission run time  
CR-05-00068, Determine Criteria for Documenting Maintenance Rule Issues within Corrective  
Action Program  
Maintenance Rule Functional Failure Determination  
Maintenance Rule (a)(1) System Listing  
Maintenance Rule Scoping Document

**Section 1R13: Maintenance Risk Assessments and Emergent Work Evaluation**

Equipment Out of Service Quantitative Risk Assessment Tool  
MP-13-PRA-FAP01.1, Revision 000, Performing Risk Reviews  
Major Equipment Schedule

MP-20-WM-FAP02.1, Revision 009, Conduct of On-Line Maintenance  
NUMARC 93-01, Revision 2, Nuclear Energy Institute Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants  
CR-04-09890, 3SIH\*PIA oil leakage will exceed the oil reservoir capacity within the SIH pump design mission run time  
Unit 2 Control Room Logs  
Unit 3 Control Room Logs

**Section 1R14: Personnel Performance During Non-Routine Plant Evolutions and Events**

Unit 2 Control Room Logs  
Unit 3 Control Room Logs  
Reactivity Management Plan  
OP-2204, Revision 019-02, Load Changes  
Millstone Nuclear Power Station Request for Determination dated May 18, 2000  
State of Connecticut Notification Regarding Facility Modification dated September 28, 2000  
Major Equipment Schedule  
CR-04-10632, Unplanned LCO Entry Tech Spec 3.8.1.1 Due to Switchyard Electrical Transient  
Unit 3 Sequence of Event Logs  
Unit 3 LPSI "A" Train Drawing  
SP-3610A.3-001, Revision 004-03, RHR System Venting and Valve Lineup  
DNAP-2000, Attachment 5, RHR Troubleshooting Sheet  
Equipment Out of Service Risk Tool

**Section 1R15: Operability Evaluations**

CR-04-09446, Seismic structural integrity for inlet piping to relief valve 2-SW-189 (PSV-6940) cannot be satisfied  
CR-04-09789, "A" Battery Room Door (205-14-031) not open as required per OP-2315D  
CR-04-10216, Basis of operability for the "A" battery room, identified in CR-04-09789, does not appear to be supported in the tech eval referenced  
CR-04-09890, 3SIH\*PIA oil leakage will exceed the oil reservoir capacity within the SIH pump design mission run time  
CR-04-10918, 18 Primary RTD's are not EEQ sealed in accordance with approved design  
CR-03-00479, "B" Emergency Diesel Generator Jacket Cooling Surge Tank Overflowed During Surveillance Run  
CR-04-10133, Tracking Mechanism for Retest to be Performed in 2R16  
CR-04-11119, MCC B51 Enclosure Air Conditioner not Working  
CR-04-10911, MCC B51 Air Conditioning Unit A/C-3 Making High Pitched Whistle  
CR-04-09492, "B" EDG Jacket Water Surge Tank Overflow  
Reportability Evaluation, REF 90-13, Millstone Unit 3 Narrow Range Reactor Coolant System RTDs  
MP3-081-04, Basis for initial reasonable expectation of continued operability of primary RTDs  
M2-EV-03-0046, Revision 1, Assessment of Vital Switchgear Compensatory Measures Operability

RECO MP2-074-04, Relief discharge line 1<sup>IN</sup>=HCD-131 from relief valve 2-SW-189 is not adequately supported for a design basis seismic event  
OP-2315D, Revision 012-03, Vital electrical switchgear room cooling systems  
RP-5, Revision 003-01, Operability Determinations  
RECO MP3-076-04, Charging Pump suction valve spurious closure may result in loss of running charging pump(s)  
OD MP3-076-04, Charging Pump suction valve spurious closure may result in loss of running charging pump(s)  
OD MP3-080-04, Excessive air vented from "A" train of the residual heat removal system  
CR-04-10129, During performance of SP 3610A.3-1 (RHR system venting and valve lineup), excessive air vented from 3SIL\*V875  
M3-EV-04-0021, Revision 1, Technical Evaluation for Assessment for Gas Accumulations in the RHR "A" Train Piping as Documented in CR-04-05384, CR-04-05822, and CR-04-06615  
NUCENG-04-115, memo dated 11/14/04, Input Data to Support OD related to CR-04-10129: Air Accumulation in the "A" RHR train local to 3SIL\*V875  
NSAL 95-001, Emergency Core Cooling System (ECCS) Analysis  
CR-04-08450, Charging Pump Suction Valve 3CHS\*LCV112B or LCV112C spurious closure may result in quick catastrophic failure of running charging pump (Ref. OE18887)  
Unit 3 General Night Order dated 9/21/2004  
CR-04-08589, Review procedure for enhancements

#### **Section 1R16: Operator Work-Arounds**

Unit 3 Operator Workaround Management Summary dated 12/14/04  
CR-03-04821, The Unit-3 electric fire pump relief valve, 1-fire-17B failed retest  
CR-03-06780, REA needed for replacement of Unit 3 fire pump M7-8  
CR-03-12031, 3CND-demi inlet and outlet MOV's are leaking by  
Unit 3 Assessment Report dated 12/16/04  
MP-14-OPS-GDL600, Revision 001, Plant Status and Configuration Control  
MP-14-OPS-GDL400, Revision 002, Operations Administrative Procedures  
OP-3341D, Revision 014-03, Fire Protection Detection and Control

#### **Section 1R19: Post-Maintenance Testing**

AWO-M2-04-11157, Positioner Adjustment  
AWO-M-2-99-06020, PM, 6 Year -- Mechanical Overhaul  
AWO-M2-04-09556, A Through Wall Leak D13 Discovered on Service Water Pipe Spool 4363 Supplying MP2 "B" Diesel Generator  
AWO-M3-02-07511, SBO EDG Air Start Solenoid Replacement  
AWO-M3-02-18657, SBO EDG Fuel Oil Filter Replacement  
AWO-M3-04-11345, SBO Ventilation Louver Replacement  
AWO-M3-02-00673, 3B65-TRS1 Contact Resistance and Meggar Check  
AWO-M3-02-01648, 3BGS-TRS1 Breaker Inspect/Clean/Cycle  
AWO-M3-04-00859, Service Water Pump Strainer  
AWO-M3-04-02659, Chemical Volume Control Charging Pump Grease & Inspect Coupling  
AWO-M3-02-09273, Residual Heat Removal Pump 3RHS\*PIB 4160V Breaker Doble Testing

M2-EV-04-0032, Revision 00, 2-FW-51A On-line Positioner Replacement and Output Pressure Adjustment  
CR-04-11078, Need to Revise the Charging Pump Coupling Lubrication Procedure to Address Inspection Accessibility Difficulties  
CR-04-10292, Doble Test Set Watt Function Found not Working  
CR-04-11141, CR-04-10292 Identified Failed M&TE, However No Usage Was Documented  
CR-04-10133, Tracking Mechanism for Retest to be Performed in 2R16  
MP-20-WP-GDL40, Revision 003, Pre and Post Maintenance Testing  
MP-20-WP-GDL40, Revision 002-01, Pre and Post Maintenance Testing  
MP-3750AA, Revision 003-02, Service Water Strainer Maintenance  
CMP 782AE, Revision 000-01, Overcurrent Device Testing for MCC and Molded Case Breakers  
MP-3721AA, Revision 000-01, SBO Diesel 3 to 4 Year Required Maintenance  
MP-3782EJ, Revision 1, Limotorque Motor Operator Troubleshooting  
MP-3750AA, Revision 003-02, Service Water Strainer Maintenance  
MOV-1214, Revision 000, Limotorque WB-1 Overhaul  
MOV-1202, Revision 001, Limotorque Operator Maintenance  
SP-3626.7, Revision 014-03, Service Water Pump 3SWP\*PID Operational Readiness Test Analysis Print, Valve ID, Overlay, 1997-2004, dated 12/15/04

**Section 1R22: Surveillance Testing**

SP-2601H, Revision 013-03, "C" Charging Pump Operability and Operational Readiness Tests, Facility 2  
SP-2601H-001, Revision 010-01, "C" Charging Pump Operability Test  
SP-2601I, Revision 001-08, Charging Pump Inservice Tests  
SP-2601I-003, Revision 001-00, "C" Charging Pump and Discharge Check IST, NOP  
SP-2664, Revision 000-02, Charging Pump Pulsation Dampener Test  
SP-2664-003, Charging Pump "C" Pulsation Dampener Test  
SP-3646A.1, Revision 015-07, Emergency Diesel Generator A Operability Test  
SP-3646A.1-003, Revision 009-01, Emergency Diesel Generator A Air Start Valves Independence Test  
SP-3646A.8-010, Revision 001, Containment Isolation Phase A 5920-Relay K630, Slave Relay Actuation Test - Train A  
SP-3646A.8, Revision 020, Slave Relay Testing, Train A  
SP-3604C.4-001, Revision 008-2, Boric Acid Transfer Pump 3CAS\*PZA Operational Test  
SP-3604C.4, Revision 010-03, Boric Acid Pump 3CAS\*PZA Operational Readiness Test  
SP-2602A, Revision 005-07, Reactor Coolant Leakage  
SP-2602A-001, Manual RCS Leak Rate Determination  
SP-2619-001, Revision 044-03, Control Room Daily Surveillance, MODES 1 & 2  
SP-3680.1, Revision 005, General Testing Procedure  
SP-3680.1-003, Revision 002, Containment Leakage Trending  
ENG Form 31121-008, Revision 002, IST Pump Test Plan  
CCR2330A, RBCCW RX Bldg Closed Cooling Water  
CR-04-09397, Several errors in SP-2664 and associated forms 2664-001, 002, and 003  
CR-04-10105, Excessive Seal Leakage P11A, "A" RBCCW Pump  
MP-24-MR-FAP710, Revision 000, Maintenance Rule Functional Failure Evaluation

M2-EV-00-0034, Revision 00, Analysis of RBCCW Thermal Relief Valve Lifting from RBCCW pump restarts

**Section 1R23: Temporary Plant Modifications**

WC-10, Revision 005-01, Temporary Modifications  
WC-10-006, Revision 000, Equipment Used For Testing and Maintenance Design Configuration Review  
AWO-M3-04-16780, Residual Heat Removal Pump Extended Test Run  
CR-04-09306, While Performing RHR System Venting and Valve Lineup, SP3610A-3, Excessive Air Issued From 3SIL\*V875  
CR-04-10945, Need To Revised WC10, "Temp Mods" To Clarify Use of Form 006 (Test Equipment Design Review)  
CR-04-11165, The Following Issues Were Identified During A NRC Inspector Walkdown of the Temp Air Compressor  
OP-2332B, Revision 019-08, Instrument Air System  
Dwg 25203-26009, Sh. 9 of 10, Revision 15, Instrument Air Compressor F3C

**Section 1EP4: Emergency Action Level (EAL) and Emergency Plan Changes**

Millstone Emergency Plan and Implementing Procedures

**Section 1EP6: Drill Evaluation**

AOE#7, Revision 0, MP2 LORT Annual Operating Exam, Simulator Guide Approval Sheet  
Emergency Action Level Tables  
Simulator Crew or Individual Evaluation Form  
Simulator Exam Guide  
Evaluation Standards  
Incident Report Form  
DNAP-2605, Revision 0, Emergency Preparedness Performance Indicators  
MP-26-EPA-GDL01, Revision 002, Attachment 1, Drill and Exercise Performance Indicator Evaluation Form  
Millstone Emergency Plan, Revision 30, December 2003, Page I-2 of 8  
Millstone Unit 1 Tabletop Drill CFD 04-06

**Section 4OA1: Performance Indicator Verification**

SP-3670.1, Mode 1-4 Daily and Shiftly Control Room Rounds  
CR-03-07752, Minor Discrepancies Found in MP3 RHR Performance Indicator  
CR-04-11057, Incorrect Value Submitted on U# RCS Leakage NRC Indicator  
Millstone Unit 3 Performance Indicator Data for RCS Specific Activity  
Millstone Unit 3 Performance Indicator Data for RCS Leakage

Procedures

RPM 1.3.13, Revision 06, Bioassay Sampling and Analysis  
RPM 1.3.14, Revision 06, Personnel Dose Calculations and Assessments  
RPM 2.10.2, Revision 010, Air Sample Counting and Analysis

Condition Reports:

CR-04-08868

Root Cause Evaluation

Personnel Contamination Event During Transfer of Radioactive Filters (CR-04-08868)

Other

Radiation Protection Engineering Analysis/Calculation (RP-04-16)

**Section 40A2: Identification and Resolution of Problems**

CR-04-02256, Entry Into AOP 3555, RCS Leak, While Placing Deborating Demineralizer in Service

OP-3333A, Revision 008-01, Radioactive Solid Waste

EM-104A, Revision 45, Piping and Instrumentation Diagram, Chemical & Volume Control

EM-104C, Revision 40, Piping and Instrumentation Diagram, Chemical & Volume Control

EM-110A, Revision 12, Piping and Instrumentation Diagram, Radioactive Solid Waste

EM-110B, Revision 18, Piping and Instrumentation Diagram, Radioactive Solid Waste

Millstone Power Station 2003 Radiological Environmental Monitoring Report

MP-22-REC-BAP01, Revision 24, Radiological Effluent Monitoring and Offsite Dose Calculation Manual (REMDCM)

January - October 2004 sample transmittal records (RPM-2.9.1-001) and AREVA

Environmental Laboratory sample analysis reports for: air particulates; soil; goat milk; pasture grass; well water; fruits and vegetables; broad leaf vegetation; sea water; bottom sediments; clams; oysters; mussels; fish; and, lobsters

RPM Form 4.6.24-1, SAM Calibration Certificates for SAM-9 S/N:42, 63, 64, 70, 71 and SAM-11 S/N: 182

RPM-2.4.2, Revision 012-01, Radiological Control of Material and Vehicles

CSP 400.2, Revision 003-02, Meteorological Tower Instruments Calibration

CIC 400.03, Revision 001, Meteorological Mast Instruments Calibration

MP-SA-01-47, Self-Assessment Report: REMP

Audit 03-11: Offsite Dose Calculation Manual (ODCM) Radiological Environmental Monitoring Program (REMP) and Environmental Protection Plan (EPP)

Framatome ANP Environmental Laboratory Analytical Service Semi-Annual Quality Assurance Status Report (January - June 2004)

CR-03-10518, Unexpected instrument response and loss of EDG control during LNP test

CR 04-0130, Add PM to check contact resistance is less than 1 ohm

Millstone Unit 2 Maintenance Rule (a)(1) Evaluation for the MP2 Diesel Generator System (2346A) Rev. 00

Millstone Value Model ID Number 02007616



Millstone Unit 2 Maintenance Rule Scoping Table, System Number 2346A  
 CR-03-00479, "B" emergency diesel generator jacket cooling surge tank overflowed during surveillance run  
 CR-04-09492, "B" EDG jacket water surge tank overflow  
 OP-2346A-002, Revision 19-03, "A: DG Pre-start Checklist  
 OP-2346A-005, Revision 18-0-3, "B" DG Pre-start Checklist  
 OP-2346A, Revision 25-02, Emergency Diesel Generators  
 MP-16-MMM, Organizational Effectiveness  
 MP-16-CAP-FAP01.1, "Condition report Screening and Review"  
 MP-16-CAP-FAP01.2, "Corrective Action Department Responsibilities"  
 MP-16-CAP-FAP01.3, "ACR/CR Owner, Action Owner, and Investigator Responsibilities"  
 10 CFR 50, Appendix B

**Section 40A5: Other Activities**

PI-9000461-01, Revision 1, Project Instruction for Closure Welding of Dry Shielded Canister  
 VPROC ENG04-2-013, Revision 000, Visual Examination of Welds  
 VPROC ENG04-2-014, Revision 000, Helium Mass Spectrometer Leak Test Procedure (ISFSI)  
 ML-LP-4, Revision 000-04, Liquid Penetrant Examination (LPE) Procedure  
 VPROC ENG04-2-012, Revision 000, High Temperature LPE and Acceptance Standards for Welds, Base Materials and Cladding (ISFSI)  
 VPROC ENG04-2-015, Revision 000, Welding Procedure Specification 8-MN-GTAW/SAW (ISFSI)  
 VPROC ENG04-2-016, Revision 000, Welding Procedure Specification 8-MC-GTAW (ISFSI)  
 VPROC ENG04-2-017, Revision 000, General Welding Standard 1 GWS-1-ASME Applications (ISFSI)  
 ERC 25205-ER-04-0015, Revision 000. Internal Dry Runs and NRC Demonstration of Dry Shielded Canister Closure Welding, NDE, and Helium Leak Testing  
 CR-04-08516, Tracking CR for SERO exercise conducted 9/14/04 (Objective 5)  
 CR-04-11049, Charging Pump NPSH Questioned by NRC Inspector  
 DCM03, Revision 013-04, Plant Changes  
 DCM Form 5-1A, Revision 6, Change 10, Millstone Unit 2 Determination of Available NPSH at the Suction of the Charging Pumps

**LIST OF ACRONYMS**

AC	air conditioner
ADAMS	Agencywide Documents and Management System
ALARA	as low as reasonably achievable
C of C	Certificate of Compliance
CFR	Code of Federal Regulations
CR	condition report
DRP	Division of Reactor Projects
DRS	Division of Reactor Safety
DSC	dry shielded canister
EAL	emergency action level

EDG	emergency diesel generator
FSAR	Final Safety Analysis Report
HIC	high integrity container
HPSI	high pressure safety injection
IE	inspection and enforcement
IMC	inspection manual chapter
INPO	Institute of Nuclear Power Operations
ISFSI	independent spent fuel storage installation
KI	potassium iodine
LCO	limiting condition of operation
MCC	motor control center
MR	maintenance rule
M&TE	measuring and test equipment
NPSH	net positive suction head
NCV	non-cited violation
NDE	nondestructive examination
NRC	Nuclear Regulatory Commission
OWA	operator work-around
PAR	protective action recommendation
PI	performance indicator
PMT	post-maintenance test
QA	quality assurance
RCS	reactor coolant system
REMDCM	radiological effluent monitoring and offsite dose calculation manual
REMP	radiological environmental monitoring program
RHR	residual heat removal
RSPS	risk significant planning standards
RSST	reserve service station transformer
SAR	Safety Analysis Report
SDP	significance determination process
SER	Safety Evaluation Report
SIH	safety injected high-head
TS	technical specifications
TLD	thermoluminescent dosimeter
URI	unresolved item