



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

January 28, 2009

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

SUBJECT: MILLSTONE POWER STATION - NRC INTEGRATED INSPECTION REPORT
05000336/2008005 AND 05000423/2008005

Dear Mr. Christian:

On December 31, 2008, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Millstone Power Station Unit 2 and Unit 3. The enclosed inspection report documents the inspection results, which were discussed on January 14, 2009, with Mr. A.J. Jordan, Site Vice President, and other members of your staff.

The inspection 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, no findings of significance were identified.

In accordance with Title 10 of the Code of Federal Regulations (CFR) Part 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web Site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/ Original Signed By:

Donald E. Jackson, Chief
Projects Branch 5
Division of Reactor Projects

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

Enclosure: Inspection Report No. 05000336/2008005 and 05000423/2008005
w/Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.: 50-336, 50-423

License No.: DPR-65, NPF-49

Report No.: 05000336/2008005 and 05000423/2008005

Licensee: Dominion Nuclear Connecticut, Inc.

Facility: Millstone Power Station, Units 2 and 3

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

Dates: October 1, 2008 through December 31, 2008

Inspectors: S. Shaffer, Senior Resident Inspector, Division of Reactor Projects (DRP)
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January 28, 2009

SUMMARY OF FINDINGS

IR 05000336/2008005, 05000423/2008005; 10/01/2008–12/31/2008; Millstone Power Station Unit 2 and Unit 3; Routine Quarterly Integrated Report.

The report covered a three-month period of inspection by resident and region-based inspectors. No findings of significance were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

A. NRC-Identified and Self-Revealing Findings

No findings of significance were identified.

B. Licensee-Identified Violations

None.

REPORT DETAILSSummary of Plant Status

Units 2 & 3 operated at or near 100 percent power throughout the inspection period with several exceptions. Unit 2 reduced power to 90 percent on December 6, 2008, to perform turbine valve testing. Unit 3 experienced a reactor trip from approximately 30 percent power on October 11, 2008, while reducing power for a refueling outage.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

System Inspectiona. Inspection Scope (2 Samples)

The inspectors reviewed two samples of the readiness of Unit 2 and Unit 3 for cold weather conditions, specifically, structures containing safety-related equipment areas. 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 conducted walkdowns of the systems. For the Unit 2 sample, the systems reviewed included Emergency Diesel Generators (EDGs), Emergency Core Cooling systems (ECCS), and the Service Water (SW) system. For the Unit 3 sample, the systems reviewed included the EDGs, ECCS, and SW. Documents reviewed during the inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04)

Partial System Walkdownsa. Inspection Scope (4 Samples)

The inspectors performed four 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 determine if the critical portions of the selected systems were correctly aligned, in accordance with the procedures, and to identify any discrepancies that may have had an effect on operability. The walkdowns included selected switch and valve position

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checks, and verification of electrical power to critical components. Finally, the inspectors evaluated other elements, such as material condition, housekeeping, and component labeling. The following systems were reviewed based on their risk significance for the given plant configuration:

Unit 3

- Service Water;
- Chemical Volume and Control;
- Polar Crane; and
- Spent Fuel Pool Cooling.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05Q)

a. Inspection Scope (6 Samples)

The inspectors performed walkdowns of six fire protection areas. 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 compared the existing conditions of the areas to the fire protection program requirements to determine if all program requirements were being met. Documents reviewed during the inspection are listed in the Attachment. The fire protection areas reviewed included:

Unit 2

- Auxiliary Building, Elevation -25' 6";
- Auxiliary Building, Elevation -45' 6";

Unit 3

- Containment Elevation -24'6";
- Containment Elevation -3'8";
- Containment Elevation 24'6"; and
- Containment Elevation 51'4".

b. Findings

No findings of significance were identified.

1R08 Inservice Inspection (ISI) (71111.08)

a. Inspection Scope (1 Sample)

The purpose of this inspection was to assess the effectiveness of the licensee's ISI program at Unit 3 for monitoring degradation of the reactor coolant system (RCS) boundary, risk significant piping system boundaries, and the containment boundary. The inspectors assessed the ISI activities using the criteria specified in the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI and applicable NRC Regulatory Requirements.

The inspectors selected a sample of nondestructive examination (NDE) activities for review and evaluation for compliance with the requirements of ASME Section XI. Also, the inspectors selected samples of repair and replacement activities which involved use of the welding process on pressure boundary risk significant systems. The sample selection was based on the inspection procedure objectives, risk significance and availability. Specifically, the inspectors focused on components and systems where degradation would result in an increase in risk of core damage and required the use of welding processes to affect the repair/replacement. The inspectors reviewed examination procedures, personnel qualifications and examination test results. Also, this sample includes the review of nondestructive tests performed on steam generator (SG) tubes in four SGs, review of acquired eddy current test (ECT) data, analysis of those data and disposition of indications identified. The inspectors reviewed a sample of examination reports and condition reports (CR) initiated during ISI examinations to evaluate the licensee's effectiveness in the identification and resolution of problems. The CRs reviewed are listed in the Attachment.

The inspectors reviewed the procedures used to perform visual examinations for indications of boric acid leaks from pressure retaining components including control rod drive mechanism (CRDM) connections above the reactor pressure vessel (RPV) head and from the bottom mounted instrument (BMI) penetrations. No active leakage was identified in those locations. However, evidence of inactive leakage was noted at the canopy seal weld of drive J-11 (CR 114904). The planned corrective action for the inactive leak at CRDM drive J-11 was to install a mechanical clamp assembly which will contain the canopy seal weld from future leakage. The inspectors noted that this repair method (clamp installation) has been used previously with success at other locations on Unit 3 canopy seal welds.

The inspectors reviewed a sample of CRs initiated as a result of the inspections performed in accordance with the licensee's boric acid corrosion control program

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(BACCP). The inspectors noted that no active leaks were reported during the BACCP inspection activity during this period. The inspectors selected for review CRs initiated that identified inactive locations of boric acid crystal buildup, which could indicate degradation of safety significant components. The inspectors reviewed nine CRs shown in the Attachment which identified dry boric acid crystal deposits noted during plant walkdowns performed during and after plant shutdown. The inspectors visually observed selected samples which exhibited this evidence of borated water leakage and dried crystal buildup.

The inspectors reviewed operability evaluations and corrective actions provided for selected CRs and determined that the actions specified were consistent with the requirements of the ASME Code and 10 CFR 50, Appendix B, Criterion XVI.

A SG tube inspection was performed this refueling outage (3R12) on 100 percent of the tubes in SG ("A" and "C"). Tube selection for this inspection was based on a review of the previous inspection results acquired during the ECT performed in 2005 (3R10) and a review of industry operating experience. In addition, selected tube inspections in SG "B" and "D" were included as a result of application of inspection scope expansion criteria due to flaw identification during the inspection of SG "A" and "C". The examination plan specified that all tubes in SG "A" and "C" would be examined for 100 percent of the tube length using the "bobbin" probe. Tubes defined as having locations of "special interest" within each generator were examined using "rotating" probe examination techniques.

The inspectors reviewed plant specific SG design information, tube inspection criteria, tube plugging criteria, and plans for the identification and disposition of new degradation mechanisms. Also, the inspectors reviewed the plans for the control and monitoring of foreign objects and the performance of integrity assessments if tube flaws were identified. Also, the inspectors reviewed previous inspection data to assure that areas identified with active degradation mechanism(s) were included in the current inspection plan. The inspectors determined through examination of calibration documentation that the ECT probes and related inspection equipment in use had been calibrated and qualified for the expected types of active tube degradation.

The inspectors evaluated the implementation of the SG inspection program by conducting interviews with data management personnel, acquisition personnel and data analysts. Also, the inspectors reviewed ECT data from selected tubes in the "A" and "C" SG which identified indications with known flaw characteristics and potential degradation mechanisms.

The inspectors selected four Examination Technique Specification Sheets (ETSS) shown in the Attachment for review. The inspectors reviewed the ETSS and noted the essential variables selected were qualified to demonstrate the capability of the ECT to detect known flaws previously identified as well as potential new degradation mechanisms.

The inspectors reviewed the ECT data for one tube selected from SG "A" and three tubes from SG "C". The samples selected represented tubes which exhibited various

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anomalies such as localized wear, possible loose part and axial and circumferential linear indications.

The inspectors selected the following tubes from SG "A" and "C":

<u>Steam Generator "A"</u>		<u>Steam Generator "C"</u>	
Row	Column	Row	Column
40	65 (wear)	54	64 (loose part)
		31	85 (axial indic)
		01	68 (circ indic)

One tube of the population inspected was identified as needing repair (plugging) during the period of this inspection. No new degradation mechanisms were identified during the inspection period and no tubes were identified as candidates for in-situ pressure testing during this inspection period. The inspectors reviewed data which indicated that SG leakage of greater than three gallons per day had not occurred during this operating cycle or was noted during the post shutdown visual inspection of the tube sheet faces.

The inspectors performed observation of three NDE activities in process and performed a documentation review of an additional two nondestructive examinations.

EXAMINATIONS INSPECTED:

1. Ultrasonic Test (UT), volumetric examination, pipe to reducer, FWS-13-FW-8 CM, WO M3-07-17882, 20 inch carbon steel;
2. UT, volumetric examination, pressurizer surge line, nozzle to safe end, reactor coolant system, RCS-SL-FW-4, dissimilar metal butt weld overlay;
3. Magnetic Particle Test (MT), surface examination, pipe to reducer, FWS-13-FW-8-BM, 18 inch carbon steel;
4. Liquid Penetrant Test (PT), surface examination, pipe to valve fillet weld, disk pressure system-B, WO M3-07-03964; and
5. Visual test (VT-1 and VT 3), visual examination of reactor metallic containment liner (ASME Code, Section XI, Subsections IWE).

The inspectors also reviewed documentation of two Repair/Replacement activities:

1. Work Order (WO) 53M30707055 developed as an ASME Section XI Repair Plan to restore valve body wall loss by application of weld metal on valve 3FWS-FCV530. Wall thinning occurred due to internal corrosion of one location within the valve body; and

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2. WO 53102187959 was developed as an ASME Section XI Replacement Plan for the replacement of check valve 3SIH-V024 in the high pressure safety injection system (HPSI). Replacement of this valve was required to restore leak tightness at the valve seat.

These two repair/replacement activities required the development of ASME Section XI "Repair/Replacement" plans and use of welding processes to complete the work. The inspectors reviewed the ASME Section XI repair/replacement plans, replacement material, weld procedure specifications and qualifications, welder qualification status, weld filler metals, specified non-destructive tests, acceptance criteria and post work testing for each activity, as applicable.

The inspectors reviewed the visual examination results of the containment liner to evaluate the activity performed and results obtained for compliance with the requirements of ASME Section XI, IWE (requirements for class MC and Metallic Liners of Class CC components). In addition, the inspectors performed a walkdown of various locations within the containment to evaluate the condition of the coating.

The inspectors reviewed a sample of CRs listed in the Attachment which identified flaws and other nonconforming conditions discovered during this outage. The inspectors verified that the nonconforming conditions identified were reported, characterized, evaluated and appropriately dispositioned and entered into the corrective action program.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11)

.1 Resident Inspector Quarterly Review (71111.11Q)

a. Inspection Scope (2 Samples)

The inspectors observed simulator-based licensed operator requalification training for Unit 2 on November 19, 2008 and for Unit 3 on November 5, 2008. The inspectors evaluated crew performance in the areas of clarity and formality of communications, ability to take timely actions, prioritization, interpretation, and verification of alarms, procedure use, control board manipulations, oversight and direction from supervisors, command and control. Crew performance in these areas was compared to Dominion management expectations and guidelines as presented in OP-MP-100-1000, "Millstone Operations Guidance and Reference Document." The inspectors compared simulator configurations with actual control board configurations. The inspectors also observed Dominion evaluators discuss identified weaknesses with the crew and/or individual crew members as appropriate. Documents reviewed during the inspection are listed in the Attachment.

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b. Findings

No findings of significance were identified.

.2 Licensed Operator Biennial Requalification Inspection (71111.11B)

a. Inspection Scope (1 Sample)

The following inspection activities were performed using NUREG-1021, Rev. 9, Supplement 1, "Operator Licensing Examination Standards for Power Reactors," Inspection Procedure Attachment 71111.11, "Licensed Operator Requalification Program," and NRC Manual Chapter 0609, Appendix I, "Operator Requalification Human Performance Significance Determination Process (SDP)," 10 CFR 55.46 Simulator Rule (sampling basis) as acceptance criteria.

A review was conducted of recent operating history documentation found in inspection reports, licensee event reports, the licensee's corrective action program, and the most recent NRC plant issues matrix (PIM). The inspectors also reviewed specific events from the licensee's corrective action program which indicated possible training deficiencies, to verify that they had been appropriately addressed. The Senior Resident Inspector was also consulted for insights regarding licensed operator performance. These reviews did not detect any operational events that were indicative of possible training deficiencies. Documents reviewed during the inspection are listed in the Attachment.

The inspectors reviewed two sets of 2008 comprehensive biennial written exams ("A&B"), and three sets of simulator scenarios and job performance measures (JPMs) administered during this current exam cycle (i.e., weeks 3, 4, and 6) to ensure the quality of these exams met or exceeded the criteria established in the Examination Standards and 10 CFR 55.59.

The week of the inspection, the inspectors observed the administration of operating examinations to one operating crew. The operating examinations consisted of five crew simulator scenarios and one set of five JPMs administered to each individual.

Conformance with operator license conditions was verified by reviewing the following records:

- Seven medical records were reviewed for completeness and restrictions noted by the doctor were reflected on the individual's license and that the exams were given within 24 months;
- Proficiency watch-standing and reactivation records were reviewed. A sample of five licensed operator reactivation records were reviewed as well as a 100 percent sample of non-shift licensed personnel watch-standing documentation for time on shift to verify currency and conformance with the requirements of 10 CFR 55; and

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- Remediation training records for eight remediations were reviewed for the past two-year training cycle.

Licensee's Feedback System The inspectors interviewed instructors, training/operations management personnel, and four licensed operators for feedback regarding the implementation of the licensed operator requalification program to ensure the requalification program was meeting their needs and responsive to their noted deficiencies/recommended changes.

Conformance with Simulator Requirements Specified in 10 CFR 55.46

For the site specific simulator, the inspectors observed simulator performance during the conduct of the examinations, and discrepancy reports to verify compliance with the requirements of 10 CFR 55.46.

The inspectors reviewed a sample of simulator tests including transients, normal, steady state, core performance tests as well as scenario-based tests. The inspectors verified that a sample of completed simulator discrepancy reports (DRs) and CRs from the past two-year period effectively addressed the described issue. Documents reviewed during the inspection are listed in the Attachment.

The licensee had noted in September 2008 that a number of simulator tests had not been completed as scheduled during the 2006/2007/2008 testing cycles. These required tests were subsequently completed prior to the end of calendar year 2008.

The licensee performed a root cause evaluation (RCE108505) for the missed simulator tests and implemented appropriate corrective actions in response to this issue. The missed simulator tests were reviewed for fidelity and the inspector interviewed several members of the simulator testing group regarding this issue.

On December 19, 2008, the inspectors conducted an in-office review of licensee requalification exam results for Unit 2. These results included the annual operating tests and the comprehensive written exams administered this year. The inspection assessed whether pass rates were consistent with the guidance of NRC Manual Chapter 0609, Appendix I, "Operator Requalification Human Performance Significance Determination Process (SDP)." The inspectors verified that:

Unit 2

- Crew failure rate on the dynamic simulator was less than 20 percent; (Failure rate was 10.0 percent)
- Individual failure rate on the dynamic simulator test was less than or equal to 20 percent; (Failure rate was 10.2 percent)

- Individual failure rate on the walkthrough test JPMs was less than or equal to 20 percent; (Failure rate was 2.0 percent)
- Individual failure rate on the comprehensive biennial written exam was less than or equal to 20 percent; (Failure rate was 4.1 percent) and
- More than 75 percent of the individuals passed all portions of the exam (83.7 percent of the individuals passed all portions of the exam).

Unit 3

- Crew failure rate was less than 20 percent. (Crew failure rate was 0.0 percent)
- Individual failure rate on the dynamic simulator test was less than or equal to 20 percent. (Individual failure rate was 0.0 percent)
- Individual failure rate on the walk-through test was less than or equal to 20 percent. (Individual failure rate was 4.4 percent)
- Individual failure rate on the comprehensive written exam was less than or equal to 20 percent. (Individual failure rate was 4.6 percent)
- Overall pass rate among individuals for all portions of the exam was greater than or equal to 75 percent. (Overall pass rate was 91.3 percent)

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12Q)

a. Inspection Scope (2 Samples)

The inspectors reviewed two samples 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 Dominion's implementation of the Maintenance Rule. The inspectors reviewed Dominion's ability to identify and address common cause failures, the applicable maintenance rule scoping document for each system, the current classification of these systems in accordance with 10 CFR 50.65 (a)(1) or (a)(2), and the adequacy of the performance criteria and goals established for each system, as appropriate. The inspectors also reviewed recent system health reports, CRs, apparent cause determinations, functional failure determinations, operating logs, and discussed system performance with the responsible system engineer. Documents reviewed are listed in the Attachment.

The specific systems/components reviewed were:

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Unit 2

- Auxiliary Feedwater (AFW); and

Unit 3

- Recirculation Spray System (RSS).

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)

a. Inspection Scope (2 Samples)

The inspectors evaluated online risk management for emergent and planned activities. The inspectors reviewed maintenance risk evaluations, work schedules, and control room logs to determine if concurrent planned and emergent maintenance or surveillance activities adversely affected the plant risk already incurred with out of service (OOS) components. The inspectors evaluated whether Dominion took the necessary steps to control work activities, minimize the probability of initiating events, and maintain the functional capability of mitigating systems. The inspectors assessed Dominion's risk management actions during plant walkdowns. Documents reviewed during the inspection are listed in the Attachment. The inspectors reviewed the conduct and adequacy of risk assessments for the following maintenance and testing activities:

Unit 3

- Overall Outage Risk Assessment on October 7, 2008; and
- Orange Risk for Main Transformer Insulator Replacement on October 25, 2008.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope (5 Samples)

The inspectors reviewed five operability determinations (OD). The inspectors evaluated the operability determinations against the guidance contained in NRC Regulatory Issue Summary 2005-20, Revision to Guidance Formerly Contained in NRC Generic Letter 91-18, "Information to Licensees Regarding Two NRC Inspection Manual Sections on Resolution of Degraded and Nonconforming Conditions and on Operability." The inspectors also discussed the conditions with operators, system and design engineers as necessary. Documents reviewed during the inspection are listed in the Attachment. The inspectors reviewed the adequacy of the following evaluations of degraded or non-conforming conditions:

Unit 2

- A/C-3 B51 air conditioner is running continuously and icing (CR115295);
- OD 000217, minor through wall leak on the service water channel head of the "A" Emergency Diesel Generator (EDG) jacket water heat exchanger (CR 117945);
- Operational Decision Making Implementation Action Plan for the "A" Reactor Coolant Pump Seal Leakage;

Unit 3

- DM3-00-0049-07, Evaluation for the change over to ultra low sulfur diesel fuel oil in the EDGs; and
- Main Steam Isolation Valve (3MSS*CTV27D) spring length below minimum specification.

b. Findings

No findings of significance were identified.

1R18 Plant Modifications (71111.18)

a. Inspection Scope (1 Sample)

To assess the adequacy of the modifications, the inspectors performed walkdowns of selected plant systems and components, interviewed plant staff, and reviewed applicable documents, including procedures, calculations, modification packages, engineering evaluations, drawings, corrective action program documents, the Updated Final Safety Analysis Report (UFSAR), and Technical Specifications (TS).

For modification DM3-00-0317-07, Installation of Pressurizer and RHR Valve Class Break Orifices, the inspectors determined whether selected attributes (component safety

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classification, energy requirements supplied by supporting systems, seismic qualification, instrument setpoints, uncertainty calculations, electrical coordination, electrical loads analysis, and equipment environmental qualification) were consistent with the design and licensing bases. Design assumptions were reviewed to verify that they were technically appropriate and consistent with the UFSAR. For each modification, the 10 CFR 50.59 screenings or safety evaluations were reviewed, as described in Section 1R02 of this report. The inspectors also verified that procedures, calculations, and the UFSAR were properly updated with revised design information. In addition, the inspectors verified that the as-built configuration was accurately reflected in the design documentation and that post-modification testing was adequate to ensure the structures, systems, and components would function properly. A listing of documents reviewed is provided in the Attachment.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope (5 Samples)

The inspectors reviewed post-maintenance test (PMT) 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 evaluate consistency with the associated design and licensing bases as well as Technical Specification requirements. The inspectors also evaluated whether 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 PMTs were evaluated:

Unit 3

- “A” EDG Jacket Water Heat Exchanger and governor replacement on October 30, 2008;
- “D” Main Steam Isolation Valve (3MSS*CTV27D) spring replacement on November 16, 2008;
- “A” Residual Heat Removal (RHR) pump seal replacement on November 17, 2008;
- Reactor Trip Bypass Breaker “B” replacement on November 18, 2008; and
- “A” Residual Heat Removal suction valve (3RHS*MV8702A) overhaul on November 4, 2008.

b. Findings

No findings of significance were identified.

1R20 Refueling and Other Outage Activities (71111.20)

Millstone Unit 3 Refueling Outage (3R12)a. Inspection Scope (1 Sample)

Dominion began refueling outage 3R12 on October 12, 2008 and completed the outage on November 24, 2008. The inspectors evaluated the outage plan and outage activities to determine if Dominion had considered risk, developed risk reduction and plant configuration control methods, considered mitigation strategies in the event of loss of safety functions, and adhered to licensee and TS requirements. The inspectors observed portions of the shutdown, cooldown, heat up and start up processes. Additionally, the inspectors conducted an initial containment Mode 3 walk down to evaluate the as-found condition of containment. The inspectors also conducted a final Mode 3 walk down to ensure that no loose material or debris, which could be transported to the containment sump, were present. The inspectors reviewed CRs to determine if conditions adverse to quality were entered for resolution. Documents reviewed for the inspection are listed in the Attachment. Some of the specific activities the inspectors observed and performed included:

- Reactor shutdown and cool down;
- Reactor water level drain down to the reactor flange;
- Mid-Loop and reduced inventory operations;
- Reactor Vessel head lift;
- Fuel handling, core loading, and fuel element assembly tracking;
- Containment as-found condition;
- Review of outage risk plan;
- Orange Risk – Replacement of main transformer insulators;
- Reactor Coolant System vacuum fill;
- Containment as-left walk down;
- Reactor Heatup;
- Reactor Startup;
- Low Power Physics Testing;
- Reactor power ascension; and
- Unit 3 Generator synchronization to the grid.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope (3 Samples)

The inspectors reviewed surveillance activities to determine whether the testing adequately demonstrated equipment operational readiness and the ability to perform the intended safety-related function. The inspectors attended pre-job briefings, reviewed selected prerequisites and precautions to determine if they were met, and observed the tests to determine whether they were performed in accordance with the procedural steps. Additionally, the inspectors reviewed the applicable test acceptance criteria to evaluate consistency with associated design bases, licensing bases, and Technical Specification requirements and that the applicable acceptance criteria were satisfied. The inspectors also evaluated whether 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 3

- SP 3712G, "Main Steam Code Safety Valve Surveillance," Rev. 009-01 on October 9, 2008;
- SP 3646A.17, "Train A ESF With LOP Test (ICCE)," Rev. 017 on October 29, 2008; and
- SP 3646A.8-033, "Slave Relay Continuity Testing – Train A Relays K615 and K619," Rev. 000-01 on October 29, 2008.

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness (EP)

1EP6 Drill Evaluation (71114.06)

a. Inspection Scope (1 Sample)

The inspectors observed simulator-based licensed operator requalification training for Unit 2 on November 19, 2008. The inspectors observed communications, event classification and notification activities by the simulator shift personnel during the simulator exam. The inspectors verified that classification, notification, and protective action recommendations were accurate and timely. The inspectors also observed portions of the post drill critique to determine whether any deficiencies were also identified by Dominion evaluators.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS1 Access Control to Radiologically Significance Areas (71121.01)

a. Inspection Scope (10 Samples)

During the period October 20 through 23, 2008, the inspectors conducted the following activities to verify that the licensee was properly implementing physical, administrative, and engineering controls for access to locked high radiation areas (HRA) and other radiologically controlled areas (RCA), and that workers were adhering to these controls when working in these areas during the Unit 3 refueling outage (3R12). Implementation of these controls was reviewed against the criteria contained in 10 CFR 20, Unit 3 TS, and the licensee's procedures. This inspection activity represents completion of ten samples relative to this inspection area.

Plant Walkdown and RWP Reviews

- (1) During the Unit 3 refueling outage, the inspectors identified exposure significant work areas in the Unit 3 containment, fuel handling building, engineered safeguards facility and primary auxiliary building. The inspectors reviewed radiation survey maps and radiation work permits (RWP) associated with these areas to determine if the radiological controls were acceptable. Work areas included the SG cubicles, movable in-core detector seal table area, fuel cleaning preparations at the spent fuel pool, reactor (refueling) cavity in the containment building, and the RHR system in the engineered safeguards facility.
- (2) The inspectors performed independent surveys of selected areas in the Unit 3 containment building, engineered safeguards facility, fuel storage building, waste processing building and primary auxiliary building to confirm the accuracy of survey maps, the adequacy of postings, and that Technical Specification Locked High Radiation Areas (TSLHRA) and Very High Radiation Areas (VHRA) were properly secured and posted. Areas in containment surveyed included the SG cubicles, seal table area, pressurizer relief tank, cavity drain line area, and reactor coolant pump (RCP) areas.
- (3) In evaluating RWPs, the inspectors reviewed electronic dose/dose rate alarm set points and alarm reports to determine if the set points were consistent with survey indications and plant policy. The inspectors verified that workers were knowledgeable of the actions to be taken when a dosimeter alarms or malfunctions for tasks being conducted under selected RWPs. Work activities

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reviewed included decontamination services (RWP 308202), predictive maintenance activities (RWP 308214), and reactor upper internal repairs (RWP 308316).

- (4) The inspectors reviewed Personnel Contamination Reports (PCR), airborne sampling results, whole body counting data, and the associated dose assessments for maintenance performed on the RHR system. The inspectors determined that no contamination resulted in an internal dose exceeding 10 mrem.

Jobs-In-Progress Review

- (5) The inspectors observed the preparations and various work stages for several tasks including fuel cleaning, fuel assembly transfers, and SG ECT. The inspectors observed various aspects of these activities from the centralized monitoring system (CMS) to determine electronic dosimeter work area dose rates, worker dose, the coordination of activities by the CMS staff and that radiological controls were adequately communicated to the workers.

The inspectors determined that additional airborne monitoring and respiratory protection was implemented for various jobs including maintenance on the RHR system, performed in the engineered safeguards facility.

High Risk Significant, High Dose Rate, and VHRA Controls

- (6) The inspectors reviewed the preparations made for various potentially high dose rate jobs, including the initial removal of the movable in-core detector from the reactor vessel and SG ECT.
- (7) The inspectors inventoried keys to VHRAs and TSLHRAs stored at the Unit 3 Control Point to verify that all keys were accounted for. During tours of Unit 3, the inspectors verified that locked HRA were properly secured and posted.
- (8) The inspectors verified that Unit 3 VHRA, such as the under vessel hatchway and the in-core instrument area, were properly secured and posted and that surrounding area dose rates and postings met regulatory criteria.

Radiation Worker and Radiation Protection Technician Performance

- (9) Several radiological related CRs were reviewed to evaluate if the incidents resulted from repetitive worker errors and to determine if an observable pattern traced to a similar cause was evident.
- (10) Radiation Protection technicians and radworkers were questioned regarding their knowledge of plant radiological conditions and associated controls. Additionally, the inspectors reviewed the licensee's process for assuring that contractor technicians were properly trained and qualified, to ANSI/N18.1-1971 standards,

prior to assuming responsibilities.

b. Findings

No findings of significance were identified.

2OS2 ALARA Planning and Controls (71121.02)

a. Inspection Scope (8 Samples)

During the periods October 20 through 23, 2008 and December 1 through 4, 2008, the inspectors conducted the following activities to verify that the licensee was properly implementing operational, engineering, and administrative controls to maintain personnel exposure as low as is reasonably achievable (ALARA) for tasks conducted during the Unit 3 refueling outage. Implementation of these controls was reviewed against the criteria contained in 10 CFR 20, applicable industry standards, and the licensee's procedures. This inspection activity represents completion of eight samples relative to this inspection area.

Radiological Work Planning

The inspectors reviewed pertinent information regarding Unit 3 outage exposure history, current exposure trends, and ongoing activities to assess current performance and outage exposure challenges. The inspectors determined the site's 3-year rolling collective average exposure and compared it to current trends.

The inspectors reviewed the refueling outage work scheduled during the outage period and the associated work activity exposure estimates. Scheduled work included guide tube split pin replacement, valve removal, fuel assembly cleaning, boric acid corrosion control inspections, SG ECT, valve repairs, and various support activities. The inspectors compared the current actual dose accrued for these tasks with the initial exposure estimates.

Additionally, the inspectors reviewed the ALARA Reviews (AR), Work-In-Progress (WIP) ARs, ALARA Challenge Board presentations, and ALARA pre-job briefing materials that addressed estimating and controlling dose for other outage activities. Jobs reviewed included fuel removal, insulation removal, scaffolding installation, reactor disassembly, SG ECT, and SG secondary side inspections. WIP ALARA reviews were evaluated for Boric Acid Corrosion Control (BACC) inspections (AR 3-08-07), health physics outage support (AR 3-08-26), A-RCP seal replacement (AR 3-08-08), split pin replacement (AR 3-08-35), scaffolding installation (AR 3-08-13), and temporary shielding installation (AR 3-08-15).

The inspectors evaluated the effectiveness of exposure mitigation requirements specified in RWPs and associated ALARA reviews. Jobs reviewed include reactor vessel disassembly (RWP 301/302/303, AR 3-08-01), SG ECT (RWP 306, AR 3-08-02), valve maintenance (RWP 354, AR 3-08-11), insulation removal (RWP226/326, AR 3-08-

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14), and scaffolding installation (RWP 231/331, AR 3-08-13).

The inspectors evaluated the departmental interfaces between radiation protection, operations, maintenance crafts, and engineering to identify missing ALARA program elements and interface problems. The evaluation was accomplished by reviewing recent ALARA Council meeting minutes, and ALARA Challenge Board presentations. The inspectors also attended a Station ALARA Council meeting to assess interdepartmental coordination regarding expanding the scope of boric acid inspections on loop stop valves 3RCS*MV8001B and 3RCS*MV8002B.

Through job site observations and radiation survey measurements, the inspectors determined if work activity planning included the use of temporary shielding, system flushes, and operational considerations; i.e., scheduling work when SG was filled to further minimize worker exposure. The inspectors reviewed temporary shielding effectiveness and performed independent measurements on various system components including the pressurizer relief lines, reactor vessel level indication system, containment radwaste storage areas, and various reactor building and auxiliary building work areas to determine if temporary shielding was appropriately used.

Verification of Dose Estimates and Exposure Tracking Systems

The inspectors reviewed the assumptions and basis for the annual site collective exposure and the Unit 3 refueling outage dose projection.

The inspectors reviewed the licensee's method for adjusting exposure estimates and re-planning work when actual dose approached estimated dose. The inspectors reviewed ALARA Council meeting minutes regarding expanding the scope of valve inspections/repairs following a boric acid walkdown that would require allocating additional dose to the BACC project.

The inspectors reviewed the licensee's exposure tracking system to determine whether the level of dose tracking detail, exposure report timeliness, and distribution was sufficient to support the control of outage project exposures. Included in this review were departmental dose compilations, and individual dose records.

Job Site Inspection and ALARA Controls

The inspectors observed activities being performed in containment including valve inspections/repairs, fuel transfers, and equipment staging. The inspectors verified that the appropriate radiological controls were implemented including pre-job briefings, radiation protection technician coverage, contamination mitigation, proper dosimetry, and that workers were knowledgeable of radiological conditions.

Source Term Reduction and Control

The inspectors reviewed the current status and historical trends of the Unit 3 source term. Through interviews with the Radiation Protection and Chemistry Manager and the

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ALARA Supervisor, the inspectors evaluated the licensee's source term measurements; i.e., reactor coolant system piping dose rates and control strategies. The inspectors reviewed reactor coolant chemistry data to evaluate the effectiveness of post shutdown source term reduction efforts. Specific strategies being employed included enhanced filtration, system flushes, installation of temporary shielding, and chemistry controls.

Radiation Worker Performance

The inspectors observed radiation worker and radiation protection technician performance for selected tasks. Tasks observed included RHR system maintenance, containment mobilization activities, and SG secondary side inspections. The inspectors determined that the individuals were aware of radiological conditions and access controls that applied to their tasks.

The inspectors reviewed CRs related to radiation worker, radiation protection technician errors and PCRs to determine if an observable pattern traceable to a common cause was evident.

Declared Pregnant Workers

The inspectors determined that no declared pregnant workers were employed to perform outage related activities in the RCAs.

Problem Identification and Resolution

The inspectors reviewed elements of the licensee's corrective action program related to implementing the radiological controls program to determine if problems were being entered into the program for resolution. Included in this review were relevant CRs, Nuclear Oversight field observation reports, and a program audit.

3R12 ALARA Performance

The inspectors reviewed actual dose received to perform outage related tasks and compared this data with initial and revised exposure estimates. The inspectors reviewed ALARA Work-In-Progress reviews, Station ALARA Council meeting minutes, electronic dosimetry dose/dose rate alarm reports, an internal dose assessment, and relevant CRs to evaluate the effectiveness on the licensee in monitoring and controlling worker exposure.

b. Findings

No findings of significance were identified.

2OS3 Radiation Monitoring Instrumentation and Protective Equipment (71121.03)

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a. Inspection Scope (9 Samples)

During the period December 1 through 4, 2008, the inspectors conducted the following activities to evaluate the operability and accuracy of radiation monitoring instrumentation, and the adequacy of the respiratory protection program relative to maintaining and issuing self-contained breathing apparatus (SCBA). Implementation of these programs was reviewed against the criteria contained in 10 CFR 20, applicable industry standards, and Millstone's procedures.

- (1) The inspectors reviewed the UFSAR to identify area radiation monitors that are installed in Millstone Units 2 and 3 for the protection of workers, and reviewed the calibration procedure and current calibration records for selected instrumentation, including the Unit 2 spent fuel area monitors (RM-8139/8142/8156/8157), the Unit 2 Containment Personnel Access radiation monitor (RM 7890), the Unit 2 Containment Refueling Machine Service Platform radiation monitor (RM 7891), the Unit 2 Control Room Area radiation monitor (RM 7899), the Unit 3 in-core instrument transfer area monitor (3RMS-03), the Unit 3 fuel transfer tube area monitor (3RMS-031), the Unit 3 in-core instrument thimble area monitor (3RMS-035), the Unit 3 spent fuel pool area monitor (3RMS-RIY08), the Unit 3 Control Room monitor (3RMS-022) and the Unit 3 high range containment area monitors (RE-4A/5A). The inspectors discussed with the I&C supervisor the monitoring system health reports and instrument reliability trends.
- (2) The inspectors reviewed the operating procedure, current source activities/dose rate characterizations, annual dose rate validations for the Shepherd Model 89 instrument calibrators (Serial Nos. 9155 & 9068).
- (3) The inspectors reviewed the calibration records for selected instruments and monitors including contamination monitors (SAM 9 & 11, CM-11, SAC-4), personnel contamination monitors (ARGOS-4A/B), electronic dosimeters (Seimens Mk2), neutron monitor (REM 500), and various portable survey instruments (FHZ 612, RO-2, E-140N).
- (4) The inspectors reviewed the calibration records for gamma spectroscopy instruments (Detectors 7, 8, 15, & 16) used for evaluating air samples and for determining free release contamination levels.
- (5) The inspectors reviewed records for the FastScan and AccuScan whole body counting systems. Records reviewed included the calibration data, maintenance records, and quality control records associated with performing instrument daily functional/source checks.
- (6) The inspectors reviewed recent contamination sampling (10 CFR 61 data) results for Units 2 and 3 to determine if the instrument calibration sources used were representative of the radioisotopes found in the plant source term.

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- (7) The inspectors evaluated the adequacy of the respiratory protection program regarding the maintenance and issuance of SCBAs to emergency response personnel. Training and qualification records were reviewed for licensed operators from each of the five operating shifts at each unit and for selected response personnel who would wear SCBAs in the event of an emergency.
- (8) The inspectors, with the assistance of a Fire Protection technician, physically inspected three SCBAs staged for use in each control room, and two SCBAs staged in the Unit 2 Technical Services Area. Maintenance and regulator test records were reviewed for selected SCBAs. The inspectors also verified that air used to fill the SCBAs met the Grade D quality criteria of the Compressed Gas Association.
- (9) The inspectors evaluated the licensee's program for assuring quality in the radiation monitoring instrumentation and respiratory protection programs by reviewing a Nuclear Oversight audit (No. 08-06), and CRs related to these program areas. The inspectors determined if problems were identified in a timely manner, that an extent of condition and cause evaluation were performed, previous radiation surveys remained valid, and corrective actions were appropriate to preclude repetitive problems.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES [OA]

4OA1 Performance Indicator (PI) Verification (71151)

.1 Cornerstone: Mitigating Systems

a. Inspection Scope (2 Samples)

The inspectors reviewed Dominion submittals for the PIs to verify the accuracy of the data reported during that period. The PI definitions and guidance contained in Nuclear Energy Institute 99-02, Revision 5, "Regulatory Assessment Performance Indicator Guidelines," were used to verify the basis for reporting each data element. The inspectors reviewed portions of the operations logs, monthly operating reports, LERs and discussed the methods for compiling and reporting the PIs with cognizant licensing and engineering personnel. Documents reviewed during this inspection are listed in the Attachment. The following performance indicators were reviewed:

Unit 2

- Safety System Functional Failures; and

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Unit 3

- Safety System Functional Failures.

b. Findings

No findings of significance were identified.

.2 Occupational Exposure Control Effectiveness

a. Inspection Scope (1 Sample)

The inspectors reviewed implementation of the licensee's Occupational Exposure Control Effectiveness Performance Indicator Program. Specifically, the inspectors reviewed electronic dosimetry alarm reports, CRs, and associated documents, for occurrences involving locked high radiation areas, VHRAs, and unplanned exposures against the criteria specified in Nuclear Energy Institute 99-02, Revision 5, "Regulatory Assessment Performance Indicator Guidelines," to verify that all occurrences that met the NEI criteria were identified and reported as performance indicators. This inspection activity represents the completion of one sample relative to this inspection area completing the annual inspection requirement.

b. Findings

No findings of significance were identified.

.3 RETS/ODCM Radiological Effluent Occurrences

a. Inspection Scope (1 Sample)

The inspectors reviewed relevant effluent release CRs for the period September 2007 through October 2008, for issues related to the public radiation safety performance indicator, which measures radiological effluent release occurrences that exceed 1.5 mrem/qtr whole body or 5.0 mrem/qtr organ dose for liquid effluents; 5 mrads/qtr gamma air dose, 10 mrad/qtr beta air dose, and 7.5 mrads/qtr for organ dose for gaseous effluents. This inspection activity represents the completion of one sample relative to this inspection area completing the annual inspection requirement.

The inspectors reviewed the following documents to ensure the licensee met all requirements of the performance indicator:

- 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.

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b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152)

.1 Review of Items Entered into the Corrective Action Program

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 follow-up, the inspectors performed a daily screening of items entered into Dominion's corrective action program. This was accomplished by reviewing the description of each new CR and attending daily management review committee meetings. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

.2 Annual Sample- Review of Corrective Actions Related to Gas Accumulation in the "A" Safety Injection Pump Discharge Piping.

a. Inspection Scope (1 Sample)

The inspectors performed a focused review of the actions taken and planned in response to a number of Unit 3 gas accumulation issues in the Safety Injection Pump Discharge Piping. The review included events that occurred from 2005 to 2008. The inspectors reviewed causal evaluations contained in the associated CRs, corrective actions taken, an operability determination, technical evaluations, and planned corrective actions. The inspectors also interviewed personnel and performed a plant walkdown of the Unit 3 Safety Injection System.

b. Findings and Observations

No findings of significance were identified.

The licensee has taken actions to prevent nitrogen gas accumulation in the Unit 3 Safety Injection System discharge piping. These actions include replacing check valves with new, spring-assisted check valves, replacing degraded air operated valves, adding supplemental vent valves along the safety injection pump discharge piping, and increasing ultrasonic testing locations along the Safety Injection System piping.

The licensee determined the most likely cause of the gas accumulation of the Safety Injection System discharge piping was leakage from several check valves and air

operated valves which are aligned in the Safety Injection System discharge piping to the accumulators. It was concluded by the licensee that the check valves would stick or not seat properly. Therefore the valves were replaced with spring assisted check valves during the recent outage. The inspector determined that the licensee's actions were reasonable based on a review of the information associated with the gas accumulation events.

.3 Operator Work-Around

a. Inspection Scope (1 Sample)

The inspectors reviewed the current listing of operator work-arounds for Units 2 and 3. The review was conducted to verify that Dominion procedures and practices provided necessary guidance to plant personnel, that the cumulative effects of the known operator work-arounds were addressed, and that the overall impact on the affected systems were assessed. The inspectors independently assessed the cumulative impact of known operator work-arounds to determine if they adversely affected the ability of operators to implement operating procedures (both normal and off-normal) and/or respond to plant transients. In support of this assessment, the inspectors reviewed various CRs regarding operator work-arounds, verified that work-arounds were being identified, tracked, and resolved in accordance with Dominion's corrective action program.

b. Findings and Observations

No findings of significance were identified. The inspectors determined that operator work-arounds are adequately classified, tracked, and assessed in accordance with Dominion's procedures.

.4 Semi-Annual Problem Identification & Resolution (PI&R) Trend Review

a. Inspection Scope (1 Sample)

As required by Inspection Procedure 71152, the inspectors performed a review of the Dominion corrective action program and associated documents to identify trends that may indicate existence of safety significant issues. The inspectors review was focused on repetitive equipment and corrective maintenance issues, but also considered the results of daily inspector corrective action program item screening.

b. Findings and Observations

No findings of significance were identified. No trends were identified that were not already identified and being addressed by Dominion. The inspector's determined that Millstone's CRs are adequately categorized and trended.

4OA3 Followup of Events and Notices of Enforcement Discretion (71153)

.1 Unit 3 Reactor Trip – Low-Low SG Levela. Inspection Scope (1 Sample)

On October 11, 2008, while operators were reducing power in preparation for 3R12. At approximately 30 percent power, SG levels began to oscillate. "A" SG reached its high-high level setpoint which resulted in a turbine trip and feed water isolation. "C" SG quickly lowered to the low-low level setpoint resulting in an automatic reactor trip.

The inspectors observed operator actions following the reactor trip. The inspectors reviewed Dominion's post trip review report which stated that the feed station operator raised feed pump speed to increase feed differential pressure back to the normal band. The increased volume of cold water in the steam generator caused levels to increase as the water expanded during heat-up. The operator closed the feed regulating valves in response, but the high-high level setpoint was reached and the turbine tripped and was followed shortly by the automatic reactor trip. The inspectors will review the results of Dominion's root cause evaluation once it is completed. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

.2 (Closed) LER 05000336/2006007-00 and Cancellation, Vendor Technical Manual Used in Common Maintenance Procedure on Support Systems Results in Inoperability of Redundant 480V Emergency Load Centers

On November 21, 2006, with the plant operating at 100% power, two 480V Emergency Load Centers (B51 and B61 MCCs) were declared inoperable when it was discovered that required ventilation systems were not able to perform their related support functions. Dominion later cancelled this LER when a technical evaluation determined that while the supporting ventilation system was degraded, the 480V emergency load centers remained operable.

This issue was documented in NRC inspection report 05000336/2007002 as a Green NCV. The inspectors reviewed this LER and its cancellation and no additional findings were identified. This LER and its cancellation are closed.

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4OA5 Other Activities

Stretch Power Uprate (SPU) (71004).1 Power Ascensiona. Inspection Scope (1 Sample)

The inspectors witnessed power ascension activities following the Unit 3 Refueling outage. Inspectors witnessed portions of reactivity changes made to achieve the SPU power limit (3650 MWth). The inspectors also reviewed operator actions, procedural adherence, and plant response during power ascension. The inspectors reviewed data collected during the power ascension, ensured that it met acceptance criteria, and that any exceptions were appropriately addressed. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

.2 Walkdown of Main Steam Valve Buildinga. Inspection Scope (1 Sample)

The inspectors performed a walk down of the main steam valve building to verify the material condition of the environmental qualification (EQ) components that could be affected by the higher temperatures resulting from a steam line break at the SPU power level, specifically the NAMCO limit switches on air operated valves, Rosemount pressure transmitters used to detect steam line breaks, and the Sulzer main steam line isolation valve solenoids. The inspector verified that applicable components were insulated and also interviewed engineers and maintenance personnel and reviewed

surveillances to verify that appropriate preventive maintenance was being performed on the components.

b. Findings

No findings of significance were identified.

.3 SPU Procedure Reviewsa. Inspection Scope (1 Sample)

The inspectors reviewed three procedure changes and two associated 10 CFR 50.59 reviews. The procedure changes were required to support the Millstone Power Station Unit 3 SPU, and were associated with plant modifications MMOD DM3-00-0071-08, MP3 SPU Impacts on BTP 9.5-1 Program and DCR M3-08010, SPU Auxiliary Feedwater

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System. The SPU 10 CFR 50.59 screen inspection was conducted to determine if changes and tests were evaluated and documented in accordance with 10 CFR 50.59; and, if required, Dominion Nuclear Connecticut, Inc. obtained NRC approval prior to implementation. The inspection also verified that the procedure changes were consistent with Millstone, Unit 3, Safety Evaluation, Amendment 242. A listing of documents reviewed is provided in the Attachment.

b. Findings

No findings of significance were identified.

.4 Licensed Operator Training Review

a. Inspection Scope (1 Sample)

The inspectors reviewed the training materials prepared for Millstone Unit 3 (MP3) Stretch Power Uprate (SPU) to determine if the training met the systems approach to training (SAT) principles as listed in 10 CFR 55.4. The inspectors reviewed classroom and simulator training materials to verify that the training included the appropriate topics and that they were covered in sufficient detail to be effective. The inspectors verified that the classroom training plan included details of the SPU design changes as well as the impact on plant operation, including revised system setpoints and limits, operational implementation and test plans, changes in the technical specifications and emergency operating procedures (EOPs). The inspectors also verified that the simulator training included changes to the EOPs as a result of the SPU. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

.5 Samples Documented in Other Sections

a. Inspection Scope

The inspectors observed SP 3646A.8, "Slave Relay Continuity Test - Train A Relays K615 and K619" surveillance as the retest for the P-19 Cold Leg Injection Permissive Modification. The details of the inspection are documented in Section 1R22 of this report.

b. Findings

No findings of significance were identified.

4OA6 Meetings

Exit Meeting Summary

On January 14, 2009, the resident inspectors presented the overall inspection results to Mr. A.J. Jordan, Site Vice President, and members of his staff. The inspectors confirmed that no proprietary information was provided or examined during the inspection.

ATTACHMENT: SUPPLEMENTAL INFORMATION

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SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel

G. Auria	Nuclear Chemistry Supervisor
B. Bartron	Supervisor, Licensing
J. Cambell	Manager, Security
C. Chapin	Supervisor, Nuclear Shift Operations Unit 2
A. Chyra	Nuclear Engineer, PRA
T. Cleary	Licensing Engineer
G. Closius	Licensing Engineer
M. Cote	Supervisor Requalification Training
L. Crone	Supervisor, Nuclear Chemistry
C. Dempsey	Assistant Plant Manager
J. Dorosky	Health Physicist III
M. Finnegan	Supervisor, Health Physics, ISFSI
R. Griffin	Director, Nuclear Station Safety & Licensing
W. Gorman	Supervisor, Instrumentation & Control
J. Grogan	Assistant Plant Manager
C. Houska	I&C Technician
A. Jordan	Site Vice President
J. Kunze	Supervisor, Nuclear Operations Support
B. Krauth	Licensing, Nuclear Technology Specialist
J. Laine,	Manager, Radiation Protection/Chemistry
J. Langan	Manager, Nuclear Oversight
P. Luckey	Manager, Emergency Preparedness
R. MacManus	Director, Engineering
M. O'Connor	Manager, Engineering
L. Morris	Site Plant Manager
M. Roche	Senior Nuclear Chemistry Technician
C. Ryan	Supervisor Requalification Training
J. Semancik	Manager, Operations
S. Smith	Supervisor, Nuclear Shift Operations Unit 3
J. Spence	Manager, Training
S. Turowski	Supervisor, Health Physics Technical Services
C. Vournazos	IT Specialist, Meteorological Data

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

Closed

05000336/2006007-00 Vendor Technical Manual Used in Common Maintenance
 Procedure on Support Systems Results in Inoperability of Redundant 480V Emergency Load
 Centers (Section 4OA3.2)

Attachment

05000336/2006007-00 Cancellation (Section 4OA3.2)

BASELINE INSPECTION PROCEDURE PERFORMED

71121.01	Access Controls to Radiologically Significant Areas	2OS1
71121.02	ALARA Planning and Controls	2OS2
71151	Performance Indicator Verification	4OA1

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

COP 200.13, Revision 002-01, Cold Weather Preparation

Section 1R04: Equipment Alignment

OP 2326A, Revision 023-01, "Service Water System"
 OP 3304A, Revision 030-03, "Charging & Letdown"
 MP 3790AA, Revision 009-03, "Preparation for Reactor Head Lift"
 MP 3704B, Revision 004-04, "Control of Heavy Loads"
 MP 3792AA, "Reactor Disassembly and Assembly", Rev. 000-02
 OP 3305-001, "Fuel Pool Cooling System – Valve Lineup", Rev. 005
 25212-26911, Piping & Instrumentation Diagram Fuel Pool Cooling & Purification System, Rev. 32
 M30703991, Pre Operational Preparation for Use of the Polar Crane
 53M30114423, PM, 10 Year, RV Internals Lifting Rig Inspections

Section 1R05: Fire Protection

Millstone Unit 2 Fire Hazards Analysis, Revision 9
 Millstone Unit 3 Firefighting Strategies, April 2002

Section 1R08: Inservice Inspection

Examination Procedures

ER-AA-NDE-MT-200 R2	ASME Section XI Magnetic Particle Examination Procedure
ER-AA-NDE-PT-300 R2	ASME Section XI Liquid Penetrant Examination Procedure
MP-VE-2 R3	Visual Examination (VT-2) Procedure for System Pressure Test
ER-AA-NDE-UT-801 R0	Ultrasonic Examination of Ferritic Piping Welds in Accordance with ASME Section XI, Appendix VIII
ER-AA-NDE-UT-808 R0	Ultrasonic Examination of Weld Overlaid Similar and Dissimilar Metal Welds in Accordance with ASME Section XI, Appendix VIII
VPROC ISI00-001 Rev1	Radiography Examination Procedure for ASME Boiler and Pressure Vessel Code RT 010, R0

Condition Reports

CR-07-05121	Wall loss noted by UT Inspection in 2007, loss needs to be restored, FCV 530
CR-113537	Pressurizer heater – white deposit on heater at cable junction
CR-113801	Boric acid deposits observed on packing gland and stem of 3CHS-V896
CR-113826	3SIL-V912 Boric acid deposits observed below valve
CR-113870	3SIH-V952 Safety Injection deposit noted in packing gland location

CR-113903	3SFC-V114 Boric acid deposit observed at pipe plug
CR-114271	3RCS-V948 Boric acid deposit in packing gland area
CR-114279	3SIL-V987 Boric acid deposit noted in bonnet to body area
CR-114319	3SIL-V893 Active boric acid leak in packing area
CR-114453	3RCS-AV8037B Excessive boric acid deposits on body, bolting etc
CR-114904	Dry boric acid crystal buildup noted on canopy seal weld at drive J-11
CR-114527	Discontinuity recorded which is indicative of cracking, "C" SG, row 7 column 35

Examination Technique Specification Sheets (Steam Generator Tube Exam)

ETSS BOB001	Bobbin examination of tube full length
ETSS RESO001	Indication sizing and resolution
ETSS RPC002	Rotating probe of U-bends and U-bend special interest
ETSS RPC001	Rotating probe for dents, expansion transitions, freespan indications

Examination Reports

024-001 thru 004	IWE Visual Examination Data Sheets for containment liner zones 24-1-4
003-001 thru 007	IWE Visual Examination Data Sheets containment liner zones 03-1-7
051-001 thru 006	IWE Visual Examination Data Sheets containment liner zones 51-1-6
312-02-001	Liquid Penetrant Test, fillet weld (V2/V4) disk pressure system "B"
312-03-020	Magnetic Particle Test, Feedwater, butt weld, FWS-13-FW-8-CM
312-03-019	Magnetic Particle Test, Feedwater, butt weld, FWS-13-FW-9-BM
312-01-020	Ultrasonic Test, Feedwater, butt weld, FWS-13-FW-8-BM
312-01-021	Ultrasonic Test, FWS-13-FW-8-CM, pipe to reducer, butt weld
312-01-011	Ultrasonic Test of weld overlay of pressurizer surge line nozzle, component RCS-SL-FW-4, reactor coolant system

Work Orders

WO-M3-0406099	Containment Liner Visual Inspection
WO-M3-0607925	Perform Visual Examination of pressurizer heater coupling welds

Welding Technique

WTN 109 R10	Manual GTAW/SMAW arc welding of P1 to P1 (Carbon Steel)
WTN 803 R9	Manual Gas Tungsten Arc (GTAW)/Shielded Metal Arc (SMAW) welding of P8 to P8 (Stainless Steel)

Procedure Qualification Record

PQR 109 R5	Procedure qualification supporting WTN 109 GTAW/SMAW with PWHT
PQR 126 R1	Procedure qualification supporting WTN 109 GTAW/SMAW no PWHT
PQR 801 R2	Procedure qualification supporting WTN 803 GTAW/SMAW

Miscellaneous

U3-234-ISI-FAP 02.3	ASME Section XI Pressure Test Program for Unit 3
M3-EV-08-0017 R0	Millstone Unit 3 SG Integrity Degradation Assessment
M3-EV-07-0016 R0	Millstone Unit 3 SG Condition Monitoring and Operational Assessment-Refueling Outage 11
U3-24-ISI-FAP 2.3 R3-05	ASME Section XI Pressure Test Program for Unit 3
WC-3 R3-06	ASME Section XI Repair and Replacement Program
MP-24-CII-PRG R3	Containment Inservice Inspection Program
ITC-SA-06-05	Boric acid corrosion control program (BACCP) self assessment

2008 Qtr 1 and 2	BACCP Quarterly Health Reports
ER-AP-BAC-101 R1	Boric Acid Corrosion Control Program (BACCP) Inspections
LMT QA-46	NDE Personnel PDI Qualification (ID11004) Ferritic Pipe Welds

Drawings

25212-20014	Piping Fabrication Installation Isometric for Feedwater System
25212-29001	Canopy Seal Clamp Assembly (for CRDM)

Section 1R11: Licensed Operator Requalification Program

Operational Exercise #1 (S08601)

Other Documents Reviewed

LORT Cycle Feedback 2007-2008 Binder
Root Cause Evaluation M-08-07451 Millstone 2 Feedwater Heater Level Oscillation and Manual Reactor Trip (CR 08-07451)
Root Cause Evaluation RCE108505 Discrepancies Exist with Unit 2 Simulator Testing Records

Condition Reports/ Work Requests

CR-07-08202 Audit 07-07, Training It Was Discovered That Scenario Based Testing Was Not Performed For U2 New Simulator Training For Cycle 07-04 As Required
CR-08-06997 Incorrect Simulator Response to a Turbine Trip Combined with a Simultaneous Loss of Both Main Feedwater Control Power Supplies

CR 108255 Missed Simulator Normal Operations Test
CR 108263 Missed Simulator Normal Operations Test
CR 108371 Documentation of Simulator Tests Not Complete
CR 108505 Discrepancies Exist with Unit 2 Simulator Testing Records
CR 108838 Simulator Procedures Require Revision

Self Assessment Report

SAR000030, "Principles and Practices for the Annual Operator Tests and Biennial Written Exams at Dominion's Nuclear Sites

Training Procedures

OAP-032, Revision 8, "Operations Training Program"
TPD -7.080, "Licensed Operator Requalification Training (LORT)"
TQ4, "Administrative Requirements for Application and Maintaining Operator Licenses, Rev 003-01
Licensed Operator Requalification Training (LORT) Sample Plan for the 2007/2008 Program

Operating Tests

MP2 LORT Annual Operating Exam AOE #1 Rev 5
MP2 LORT Annual Operating Exam AOE #2 Rev 2
MP2 LORT Annual Operating Exam AOE #3 Rev 3
MP2 LORT Annual Operating Exam AOE #5 Rev 4
MP2 LORT Annual Operating Exam AOE #7 Rev 3

MP2 LORT Annual Operating Exam AOE #26 Rev 1
MP2 LORT Annual Operating Exam AOE #30 Rev 0

Job Performance Measures

JPM-018 Rev 5
JPM-041 Rev 3
JPM-048 Rev 8
JPM-050 Rev 9
JPM-063 Rev 6
JPM-064 Rev 6
JPM-067 Rev 6
JPM-069 Rev 3
JPM-092 Rev 5
JPM-126 Rev 2
JPM-139 Rev 1
JPM-144 Rev 1
JPM-161 Rev 0
JPM-162 Rev 0
JPM-183 Rev 0
JPM-206 Rev 2
JPM-220 Rev 1
JPM-232 Rev 0

Biennial Written Exams

MP2 LORT 2008 Biennial Written Exam – Crew A, Rev. 0
MP2 LORT 2008 Biennial Written Exam – Crew B, Rev. 0

Operating Procedures

3-AOP-INST-1, Revision 4, “Instrument/Controller Failure”
3-AOP-SG-1, Revision 6, “Steam Generator Tube Leak”
3-ECA-3.3, Revision 0, “SGTR Without Pressurizer Pressure Control”
3-E-0, Revision 0, “Reactor Trip or Safety Injection”
3-E-3, Revision 0, “Steam Generator Tube Rupture”
3-AOP-CVCS-1, Revision 3, “Chemical and Volume Control System Malfunction”
3-E-2, Revision 0, “Faulted Steam Generator Isolation”
3-LOOP-1, Revision 0, “Loss of Offsite Power After SI”
3-AOP-AIR-1, Revision 2, “Air Systems Malfunction”
3-FR-S.1, Revision 0, “Response to Nuclear Power Generation/ATWS”
3-AOP-LEAK-1, Revision 4, “Sudden Increase in RCS Leakage”
3-AOP-FW-1, Revision 6, “Loss of Feedwater”
3-RO01, Revision 0, “BOP Operator Actions During Use of EOPs”
3-AOP-RCP-1, Revision 4, “Reactor Coolant Pump Malfunction”
3-E-1, Revision 0, “Loss of Reactor or Secondary Coolant”
3-ES-1.2, Revision 0, “Post LOCA Cooldown and Depressurization”

Simulator Procedures

0-TQ-SM-101, Revision 2, "Simulator Modification Identification and Analysis"
0-TQ-SM-102, Revision 2, "New Training Load Validation, Review and Approval"
0-TQ-SM-103, Revision 3, "Simulator Deficiency Reporting"
0-TQ-SM-104, Revision 0, "Simulator Performance Test Program"
0-TQ-SM-105, Revision 0, "Simulator Software Control"
0-TQ-SM-106, Revision 1, "Core Performance Test"

NSEM 4.07 Master Test Schedule, Rev 8 effective 12/8/2008
NSEM 4.08 Simulator Operating Limits, Rev 8
NSEM 4.10 Normal Evolutions Testing, Rev 7
NSEM 5.01 Simulator Modification Control Process, Rev 19
NSEM 6.06 Simulator Scenario Based Testing, Rev 4

Transient Tests:

T1 Manual Reactor Trip dated 11/5/2008:
T4 Simultaneous trip of all RCPs dated 11/5/2008

Steady State Tests

Stability test 100% Power Cycle 19 dated 9/10/2008:
Internal Assessment 2008-01 Cycle 19 dated 9/19/2008 including
30% Power – cycle 18
65% Power – cycle 19
 56% Power – cycle 18
 100% Power – cycle 19
 40% Power – cycle 19

Cycle 19 Core Performance Tests (BOC)

Completed Simulator Performance Tests

Scenario Based Testing
ES08101a (SGTL, SGTR with Complications)
S08202 (Plant Heat Up and Termination of Shutdown Cooling) 2/20/2008

Section 1R12: Maintenance Effectiveness

Containment Recirculation Spray System Health Report 3rd Quarter 2008
Containment Recirculation Spray System Unavailability Report Nov 2006 - October 2008
Maintenance Rule Functional Failure Evaluations for CR114930, CR114937, CR-07-09197, CR-07-09180, CR-07-05079, CR-07-05078, CR-07-05077, CR-07-04755, CR-07-04558, CR-07-04557, CR-07-04382, CR-07-04379, CR-07-04351, CR-07-03029, CR-07-02946, CR-07-02787, CR-07-02187, CR-07-01419
Unit 2 Auxiliary Feedwater Health Report 4th Quarter 2007
Unit 2 Auxiliary Feedwater Health Report 1st Quarter 2008
Unit 2 Auxiliary Feedwater Health Report 2nd Quarter 2008
Unit 2 Auxiliary Feedwater Health Report 3rd Quarter 2008
Unit 2 Auxiliary Feedwater Unavailability reports for "A", "B", and "C" pumps from December 2006 through November 2008

Maintenance Rule Functional Failure Evaluations for CR-08-08443, CR-08-06399, CR-08-05723, CR-08-05704, CR-08-05469, CR-08-04895, CR-08-03882, CR-08-03850, CR-08-03453

Section 1R13: Maintenance Risk Assessments and Emergent Work Control

Contingency Plan 15G-13T-2, Rev. 0

Contingency Plan 371 Line CCVT Replacement, Rev. 0

MP-13-PRA-FAP01.1, "Performing (a) (4) Risk Reviews", Rev. 003

MP-20-OM-FAP02.1, "Shutdown Risk Management", Rev. 001-07

OP 3260A, "Conduct of Outages", Rev. 016-06

ORE-08-009, "Pre-3R12 Shutdown Risk Schedule Review", September 24, 2008

ORE-08-009, "Pre-3R12 Shutdown Risk Schedule Review Addendum, October 10, 2008

Risk Assessment 15G-2T-2, Rev. 0

Unit 3 Main Transformer Tie-Line Insulator Replacement Project Risk mitigation Plan - Revision 1

CR115391

Section 1R15: Operability Evaluations

CRED 115759, 3MSS*CTV27D Springs Below Minimum Specification

DM3-00-0049-07, EDG: Implementation of Ultra Low Sulfur Diesel Fuel

DM2-00-0042-07, EDG: Implementation of Ultra Low Sulfur Diesel Fuel

CR115759

Section 1R18: Plant Modifications

50.59 Screening for DM3-00-0317-07

Section 1R19: Post Maintenance Testing

C EN 110-001, "Post Repair/Replacement Component Leakage Test" for EDG A, Rev. 001-01

OP 3346A-014, "EDG A – Operating Log", Rev. 011

SP 3446B12, "Train B Solid State Protection System Operational Test", Rev. 012-02

SP 3646A.1-001, "Emergency Diesel Generator A Operability Tests", Rev. 017

SP 3646A.10-001, "Emergency Diesel Generator A Full Load Rejection Test", Rev. 007

SP 3646A.20-001, "Emergency Diesel Generator A Part Load Reject", Rev. 005

M30600482, Woodward Hyd/Mech Governor Replacement

M30804171, Replace the Jacket Water Cooler Tube Bundle

SP3610A.1-002, "3RHS*P1A Operational Readiness Test in Mode 5, 6, or 0", Rev. 004-04

SP3610A.8-001, "Stroke Test of 3RHS*MV8702A, MV8702B, MV8702C, and MV8716B", Rev. 007-01

SP3610A.8-005, "Local Operation Testing of 3RHS*MV8702A, Rev. 000-02

SP3612B.4-053, "Type C LLRT – Penetration No. 92(o) [3RHS*MV8702A & 3RHS*RV8708B]", Rev. 005-01

SP3616A.1-006, "Mode 2, 3, or 4 Single Train Stroke and Failure Test of MSIVs", Rev. 008-02

SP3616A.1-011, "MSIV Remote Position Indication Verification", Rev. 000-01

53102187370, Gross Leakage from pump 3RHS*P1A seal

53M30206212, 3MSS*CTV27D, Disassemble and Inspect

53M30717943, M33RHS*MV8702A, Full PM, Static Test, Valve Maintenance and As Left Test

Section 1R20: Refueling Outage

CP 3802C-009, Revision 001-02, "Spent Fuel Pool"
 OP 3201, "Plant Heatup", Rev. 020-16
 OP 3203, "Plant Startup", Rev. 019-04
 OP 3204, "At Power Operation", Rev. 014-03
 OP 3206, "Plant Shutdown", Rev. 011-01
 OP 3210C, "Refueling Restoration", Rev. 014
 OP 3216, "Reactor Coolant System Drain (ICCE)", Rev. 009-02
 OP 3260I, "RCS Inventory Tracking", Rev. 000-01
 OP 3270C, "Reduced inventory Operation Mode 0 With Temporary Reactor Vessel Cover",
 Rev. 000-00
 RE 1074, Revision 002-01, "Spent Fuel Pool Operation"
 SP 3712ZA, "Emergency Closure of Equipment Hatch Following Fuel Handling Accident", Rev.
 000-01
 CR116270

Section 1R22: Surveillance Testing

CR113238

Section 20S1/20S2/20S3: Access to Radiologically Significant Areas/ALARA Planning and Controls/Radiation Monitoring Instrumentation and Protective Equipment

Procedures

RPM 1.3.8, Rev 8	Criteria for Dosimetry Issue
RPM 1.3.12, Rev 8	Internal Monitoring Program
RPM 1.3.13, Rev 8	Bioassay Sampling and Analysis
RPM 1.3.14, Rev 7	Personnel Dose Calculations and Assessments
RPM 1.4.1, Rev 7	ALARA Reviews and Reports
RPM 1.4.2, Rev 2	ALARA Engineering Controls
RPM 1.4.4, Rev 2	Temporary Shielding
RPM 1.5.2, Rev 4	High Radiation Area Key Control
RPM 1.5.5, Rev 4	Guidelines for Performance of Radiological Surveys
RPM 1.5.6, Rev 3	Survey Documentation and Disposition
RPM 1.6.4, Rev 3	Siemens Electronic Dosimetry System
RPM 2.1.1, Rev 5	Issuance and Control of RWPs
RPM 2.1.2, Rev 2	ALARA Interface with the RWP Process
RPM 2.4.1, Rev 6	Posting of Radiological Control Areas
RPM 2.10.2, Rev 11	Air Sample Counting and Analysis
RPM 5.2.2, Rev 10	Basic Radiation Worker Responsibilities
RPM 5.2.3, Rev 3	ALARA Program and Policy
RPM-GDL-008, Rev 0	Electronic Dosimeter Alarm Set Points
RPM 1.3.7, Rev 7	Lost, Off-Scale, or Questionable Dosimetry
RPM 4.6.6, Rev 4	Electronic Dosimeter Calibration Verification & Response Check
RPM 4.6.12, Rev 2	PCM-1B Contamination Monitor Calibration
RPM 4.6.24, Rev 6	Small Articles Monitor Calibration
RPM 4.6.26, Rev 0	Eberline Personnel Monitor PM-7 Calibration
RPM 4.7.3 Rev 6	Small Articles Monitor Operation
RPM 4.7.8, Rev 7	Whole Body Counting System Operation
CP 2801/3801Rev 0	Abacos Plus Whole Body Counting System Maintenance

RPM 4.8.1, Rev 6	Measuring the Radiation Intensity of the J. L. Shepherd Calibrator
RPM 4.8.14, Rev 5	Instrumentation Quality Assurance Program
RPM 4.8.9, Rev 9	Source Checking Health Physics Instruments
SFP 24, Rev 3	Inspection & Inventory of Self-Contained Breathing Apparatus
IC 3490B10, Rev 6	Calibration and Functional Test for Kaman Science Area
Radiation Monitor	
LI-AA-500, Rev 0	NRC/INPO/WANO Performance Indicator and MOR reporting
RP-AA-112, Rev 0	Radiation Safety Performance Indicator Reporting

Condition Reports

113493, 110090, 112933, 114639, 114780, 107829, 107913, 108712, 113701, 114023, 114276, 114747, 114888113360, 114865, 109005, 113259, 113400
07-11266, 08-01988, 08-02824, 08-03764, 08-06961, 08-07366, 08-07461, 08-07858, 08-07911, 07-10934, 07-11578, 07-12289, 07-12556, 08-00432, 08-01280, 08-01898, 08-02759, 08-02782, 08-03748, 08-05122, 08-05644, 08-05734, 08-06605, 08-07163, 08-09190, 08-12090, 07-09928, 07-10328, 08-00380, 08-00845, 08-04586, 08-06104, 08-07070, 08-07076, 08-07152, 08-02878, 08-06001, 08-05153, 08-04905, 08-09174

ALARA Council Meeting Notes

Meetings conducted: 10/23/08, 10/20/08, 09/17/08

Nuclear Oversight Department Field Observation (NODFOB) Reports/Audit

NODFOB Nos. 8255, 8218, 8583, 8629, 8628, 08-040, 08-038
Audit 08-06, Radiological Protection/ Process Control Program

ALARA Reviews

3-08-01, Reactor Disassembly
3-08-02, Steam Generator Eddy Current Inspection (SG-B&D)
3-08-04, Fuel Movement
3-08-05, ISI Weld Inspections & Boric Acid Corrosion Control Program
3-08-07, Boric Acid Corrosion Control Inspections
3-08-09, Mechanical PM/CMs & Minor Maintenance
3-08-11, MOV Maintenance
3-08-13, Scaffold Installation & Removal
3-08-14, Insulation Removal

ALARA Challenge Board Materials

Reactor DeFueling
Radiation Protection Support
Weld Team Activities
Split Pin Replacement
Containment Coordination
Systems Team Outage
System Power Upgrade
In-Service Inspection Activities
Boric Acid Corrosion Control Inspections/Repair
Valve Maintenance
Reactor Disassembly /Reassembly & Cavity Decontamination

Steam Generator Eddy Current Testing
Steam Generator Secondary Side Cleaning & Inspection

Personnel Contamination Report

Nos. M3-08-001, M3-08-002, M3-08-003, M3-08-004

Miscellaneous Reports

Unit 3 Source Term Data

Dose & Dose Rate Alarm Report for the period October 1 - 20, 2008

Nuclear Oversight Audit:

08-06, Radiological Protection/Process Control Program

Nuclear Oversight Audits

05-06, RP/PCP/ Chem Programs

06-04, Fire Protection Program

06-08, Radiological Protection and Process Control Program

07-06, Radiological Protection, Process Control Program, and Chemistry

SCBA's Inspected:

Tank/Regulator Nos.:

370/3850631, 019/59700456, 382/3860001, 283/3860028,

412/89300056, 426/4830433, 410/29800971, Pack No. 377/023

SCBA Regulator Flow Test Results:

Regulator Nos. 89300056, 4830433, 29800971, 3860028, 3860001, 59700456

Instrument Calibration Record Reviewed:

Electronic Dosimeters: Nos. 6823, 7744, 7888, 7667

ARGOS 4A/B: Nos. 121, 123, 120, 122

SAM-11 Nos. : 493, 494, 495, 160

BC-4: Nos. 804, 805, 800, 1022

CM-11: 1189

Gamma Spectrometers: Nos. 07, 08, 15, 16

SAC-4: Nos. 1452

Teleprobes: Nos. 4283

REM 500, No. 187

RO-2 Nos. 2859, 2885

E-140N: 620

Other:

2008 Specific Isotopic Mix Summary Report

Unit 2 and Unit 3 Student Qualification/Training Status Records for SCBA training

2008 2nd Quarter Radiation Monitoring System Health Reports for Unit 2 and Unit 3

2008 Annual Validation of J.L. Shepherd Calibrators Nos. 9068, 9155

2007 and 2008 Off-Site Dose Commitments for Airborne (and Liquid) Effluents for
Millstone 1, 2, & 3

Compressed Air/Gas Quality Testing Data for September 2008

SCBA Task Student Qualification Status for Site Health Physics Technicians and
Unit 2/3 Shift Reactor Operators
CEDE Dose Assessment No. RP-08-15

Section 40A1: Performance Indicator (PI) Verification

LER 05000336/2008-001-00
LER 05000336/2008-002-00
LER 05000336/2008-003-00
LER 05000336/2008-004-00
LER 05000336/2008-005-00
LER 05000423/2007-003-00
LER 05000423/2007-004-00
LER 05000423/2008-001-00

Section 40A2: Identification and Resolution of Problems

Millstone 2 Operations Aggregate Impact Assessment, December 5, 2008
Millstone 3 Operations Aggregate Impact Assessment, December 5, 2008
OP-AA-1700, "Operations Aggregate Impact", Rev. 0
OPSTAT Database
Dominion Nuclear Trend Report Millstone Station 2nd Quarter 2008
Dominion Nuclear Trend Report Millstone Station 3rd Quarter 2008

Work Orders

53102202536
53102202991

Condition Reports

07-09670
07-11821 RCE

Drawings

Composite 7 Unit 3 SIH System Outside Containment

Miscellaneous

Millstone Unit 3 Technical Evaluation M3-EV-05-0008
NUCENG-07-048, Rev. 4
Millstone Unit 3 UT data from 2005-2008

Section 40A3: Followup of Events and Notices of Enforcement Discretion

Post Trip Review Report for CR 113512
CR-07-05735
CR113512
CR114805

Section 40A5: Other Activities

10 CFR 50.59 Safety Evaluation Screens
50.59 / 72.48 Screen and Attachment 1 for DM3-00-0071-08 MP3 SPU Impacts on BTP 9.5-1

Program, Dated 10/10/08

50.59 / 72.48 Screen for DCR M3-08020, SPU Auxiliary Feedwater System, Dated 8/22/08

Procedures

OP 3322, Auxiliary Feedwater System, Rev. 021-01

OP 3340, Water Treatment System, Rev. 016-05

EOP 35 GA-4, Transfer AFW Pump Section and Fill DWST, Rev. 001

EOP 3509.1, Control Room, Cable Spreading Area, or Instrument Rack Room Fire, Rev. 11-03
& Rev. 12

EOP 3509.3, Aux. Bldg. 4'6" Area and 24'6" North Floor Area Fire, Rev. 002

SPROC OPS08-3-03, "Implementation of Power Uprate to 3650 MW Rated Thermal Power
(ICCE)", Rev. 000-01

Other

Classroom Lesson Plan – MP3 Stretch Power Uprate Training for Licensed Operators,
C08509L, Rev. 0

Classroom Lesson Plan – Outage DCRs, C08508L, Rev. 0

Cycle 08-5, Simulator Session #3, S08503L, Rev. 0, Change 1

Millstone 3 Technical Requirements Manual through Change 154 Dated 10/17/08

CR116290

CR119413

CR120516

LIST OF ACRONYMS

ADAMS	Agencywide Documents Access and Management System
AFW	Auxiliary Feedwater
ALARA	As Low As Reasonably Achievable
AR	ALARA Review
ASME	American Society of Mechanical Engineers
ASP	Auxiliary Shutdown Panel
BACC	Boric Acid Corrosion Control
BACCP	Boric Acid Corrosion Control Program
BMI	Bottom Mounted Instrument
CBM	Condition Base Monitoring
CCP	Component Cooling Pump
CEDE	Committed Effective Dose Equivalent
CFR	Code of Federal Regulations
CLB	Current Licensing Basis
CMS	Centralized Monitoring System
CR	Condition Report
CRDM	Control Rod Drive Mechanism
DNC	Dominion Nuclear Connecticut
DR	Discrepancy Report
DRP	Division of Reactor Projects
DRS	Division of Reactor Safety
ECCS	Emergency Core Cooling System
ECT	Eddy Current Test
EDG	Emergency Diesel Generator
EP	Emergency Preparedness
EQ	Environmental Qualification
ESF	Engineered Safety Feature
ETC	Eddy Current Test
ETSS	Examination Technique Specification Sheets
FW	Feed Water
HPSI	High Pressure Safety Injection
HRA	High Radiation Areas
I&C	Instrumentation and Control
IMC	Inspection Manual Chapter
ISI	Inservice Inspection
JPM	Job Performance Measures
LER	Licensee Event Reports
MCC	Motor Control Center
mrem	millirem
MT	Magnetic Particle Test
NCV	Non-Cited Violation
NDE	Non-Destructive Examination
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission

OD	Operability Determinations
OOS	Out Of Service
PARS	Publicly Available Records System
PCR	Personnel Contamination Report
PI	Performance Indicator
PIM	Plant Issues Matrix
PI&R	Problem Identification and Resolution
PM	Preventive Maintenance
PMT	Post Maintenance Testing
PT	Penetrant Test
RCA	Radiologically Controlled Area
RCP	Reactor Coolant Pump
RCS	Reactor Coolant System
RHR	Residual Heat Removal
RPV	Reactor Pressure Vessel
RSS	Recirculation Spray System
RWP	Radiological work permit
SCBA	Self-Contained Breathing Apparatus
SDP	Significance Determination Process
SG	Steam Generator
SPU	Stretch Power Upgrade
TSLHRA	Technical Specification Locked High Radiation Areas
TEDE	Total Effective Dose Equivalent
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report
UT	Ultrasonic Test
VHRA	Very High Radiation Areas
VT	Visual Test
WIP	Work in Progress
WO	Work Order