



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION I  
2100 RENAISSANCE BOULEVARD, SUITE 100  
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

May 3, 2018

Mr. Daniel G. Stoddard  
Senior Vice President and Chief Nuclear Officer  
Dominion Energy, Inc.  
Innsbrook Technical Center  
5000 Dominion Blvd.  
Glen Allen, VA 23060-6711

SUBJECT: MILLSTONE POWER STATION – INTEGRATED INSPECTION REPORT  
05000336/2018001 AND 05000423/2018001

Dear Mr. Stoddard:

On March 31, 2018, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Millstone Power Station (Millstone), Units 2 and 3. On April 4, 2018, the NRC inspectors discussed the results of this inspection with Mr. John Daugherty, Site Vice President, and other members of your staff. The results of this inspection are documented in the enclosed report.

No NRC-identified or self-revealing findings were identified during this inspection.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and the NRC Public Document Room in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR), Part 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

*/RA/*

Daniel L. Schroeder, Chief  
Reactor Projects Branch 2  
Division of Reactor Projects

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

Enclosure:  
Inspection Report 05000336/2018001  
and 05000423/2018001

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SUBJECT: MILLSTONE POWER STATION – INTEGRATED INSPECTION REPORT  
05000336/2018001 AND 05000423/2018001 dated May 3, 2018

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**U.S. NUCLEAR REGULATORY COMMISSION  
Inspection Report**

Docket Numbers: 50-336 and 50-423

License Numbers: DPR-65 and NPF-49

Report Numbers: 05000336/2018001 and 05000423/2018001

Enterprise Identifier: I-2018-001-0082

Licensee: Dominion Energy Nuclear Connecticut, Inc. (Dominion)

Facility: Millstone Power Station, Units 2 and 3

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

Inspection Dates: January 1 to March 31, 2018

Inspectors: J. Fuller, Senior Resident Inspector  
L. McKown, Resident Inspector  
C. Highley, Resident Inspector  
H. Anagnostopoulos, Senior Health Physicist  
J. Brand, Reactor Inspector

Approved By: Daniel L. Schroeder, Chief  
Reactor Projects Branch 2  
Division of Reactor Projects

**SUMMARY**

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring Dominion's performance at Millstone Units 2 and 3 by conducting the baseline inspections described in this report in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to <https://www.nrc.gov/reactors/operating/oversight.html> for more information. Licensee-identified non-cited violations are documented in report section 71153.

No findings or more-than-minor violations were identified.

**Additional Tracking Items**

Type	Issue number	Title	Report Section	Status
LER	05000336/2016-001-00	Turbine Driven Auxiliary Feedwater Pump Room HELB Door Left Open	71153	Closed

## PLANT STATUS

Unit 2 and 3 operated at or near rated thermal power for the entire inspection period.

## INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors performed plant status activities described in IMC 2515, Appendix D, "Plant Status," and conducted routine reviews using IP 71152, "Problem Identification and Resolution." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess Dominion Energy's performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

## REACTOR SAFETY

### 71111.01 - Adverse Weather Protection

#### Impending Severe Weather (2 Samples)

The inspectors evaluated readiness for impending adverse weather conditions for the onset of a severe storm with heavy snow and high winds on January 3, 2018.

The inspectors evaluated readiness for impending adverse weather conditions for a winter storm watch on March 6, 2018.

### 71111.04 - Equipment Alignment

#### Partial Walkdown (5 Samples)

The inspectors evaluated system configurations during partial walkdowns of the following systems/trains at Unit 3:

- (1) 'B' emergency diesel generator (EDG) air start system on January 22, 2018
- (2) Charging system with both 'A' and 'B' pumps in service on January 31, 2018
- (3) Control building chiller service water booster pump trains on February 6, 2018
- (4) Auxiliary feedwater injection lines on February 12, 2018
- (5) 'A' steam generator feedwater regulating bypass valve operator and control circuit on March 27, 2018

## 71111.05A/Q - Fire Protection Annual/Quarterly

### Quarterly Inspection (7 Samples)

The inspectors evaluated fire protection program implementation in the following selected areas:

#### Unit 2

- (1) Fire areas T-3 (motor driven auxiliary feedwater pump room) and T-4 (steam driven auxiliary feedwater pump room) on January 24, 2018
- (2) Fire area A-21, west direct current switchgear room on January 26, 2018
- (3) Fire area A-15 and A-16, 'A' and 'B' EDG rooms on February 2, 2018
- (4) Fire area T-10, upper vital switchgear room on February 8, 2018

#### Unit 3

- (5) Fire area ESF-5, SE floor area auxiliary feed pump cubicle [21'6"] on January 10, 2018
- (6) Fire area CB-8, cable spreading area on January 23, 2018
- (7) Fire area FB-1, fuel building elevation 11' pipe chase / pipe tunnel pit on January 29, 2018

## 71111.06 - Flood Protection Measures

### Cables (1 Sample)

The inspectors evaluated cable submergence protection in:

- (1) Unit 3 north and south cable tunnels on January 23, 2018

## 71111.11 - Licensed Operator Requalification Program and Licensed Operator Performance

### Operator Requalification (2 Samples)

The inspectors observed and evaluated Unit 2 operator requalification training on reactor coolant system (RCS) leak (AOP-2568), reactor coolant pump malfunctions (AOP-2586), rapid downpower (AOP-2575), immediate operator actions (AOP-2585), reactor trip (EOP-2525), reactor trip recovery (EOP-2526), RCS leak rate calculation, condensate pump trips, heater drain pump trips, and feed water heater tube leak on February 6, 2018.

The inspectors observed and evaluated Unit 3 control room simulator licensed operator requalification training including a small break loss of coolant accident, rapid downpower, and nuclear instrument failure, and verified completion of risk significant operator actions, including the use of alarm response, abnormal, and emergency operating procedures on February 13, 2018

### Operator Performance (2 Samples)

The inspectors observed Unit 2 operator performance on plant downpower, turbine valve testing, annunciator response procedure usage for various turbine control alarms, and control room rounds on January 19, 2018.

The inspectors observed Unit 3 operator performance during 'B' EDG endurance surveillance testing, emergency generator logic sequencer auto test failure and manual re-test, failure and restoration of power range channel 41, and a medical emergency on February 20, 2018.

### 71111.12 - Maintenance Effectiveness

#### Routine Maintenance Effectiveness (6 Samples)

The inspectors evaluated the effectiveness of routine maintenance activities associated with the following equipment and/or safety significant functions:

#### Unit 2

- (1) 'B' direct current switchgear room chiller (Vital Chiller) maintenance on January 23, 2018
- (2) Radiation monitor failures on February 1, 2018

#### Unit 3

- (3) 'B' EDG air start system on January 22, 2018
- (4) Charging pump seal leakage on January 31, 2018
- (5) Control building chiller service water booster pump trains on February 6, 2018
- (6) Auxiliary feed water injection lines on February 12, 2018

### 71111.13 - Maintenance Risk Assessments and Emergent Work Control (8 Samples)

The inspectors evaluated the risk assessments for the following planned and emergent work activities:

#### Unit 2

- (1) 'B' EDG inoperable due to low oil temperature increased risk associated with other scheduled work on January 12, 2018
- (2) Elevated risk due to charging and letdown outage required to perform replacement and calibration of M2LY-110Q, I to P converter, on January 18, 2018
- (3) Functional testing of the steam generator level and auto auxiliary feedwater initiation logic potential Yellow risk window on February 12, 2018
- (4) Auxiliary feedwater testing with potential for causing a Yellow risk window on February 13, 2018

Unit 3

- (5) 'A' turbine driven feed pump overspeed trip push button restoration on January 31, 2018
- (6) Offsite line 310 outage concurrent with deep downpower first contingency to support offsite grid maintenance on February 9, 2018
- (7) Procedurally controlled high risk plan for the manual performance of 'B' train emergency generator logic sequencer testing on February 20, 2018
- (8) Line 348 outage and single output breaker operation on March 29, 2018

71111.15 - Operability Determinations and Functionality Assessments (8 Samples)

The inspectors evaluated the following operability determinations and functionality assessments:

Unit 2

- (1) CR1078830 – through wall leakage in emergency core cooling system recirculation piping to refueling water storage tank on January 12, 2018
- (2) 'B' EDG keep warm pump relay failure for oil temperatures on January 16, 2018
- (3) Channel 'C' reactor protection system pre-trip light on January 24, 2018
- (4) Indication of possible over power condition due to leading edge flow meter and total venturi flow mismatch on January 30, 2018

Unit 3

- (5) Reactor plant chilled water system containment isolation valves possible inadequate closing force operability determination and six month periodic review on January 11, 2018
- (6) CR1087819 – steam generator back leakage into auxiliary feedwater on January 11, 2018
- (7) CR1088497 – 'B' EDG air start system on January 22, 2018
- (8) CR1090807 – additional purging performed during monthly 'A' EDG fuel oil storage tank dewatering on February 27, 2018

71111.18 - Plant Modifications (1 Sample)

The inspectors evaluated the following temporary modification:

- (1) Unit 3 alternate plant configuration (temporary modification) of charging 'A' and 'C' pumps to support 'A' seal troubleshooting on February 26, 2018

71111.19 - Post Maintenance Testing (11 Samples)

The inspectors evaluated post maintenance testing for the following maintenance/repair activities:

Unit 2

- (1) Shim switch failure on January 11, 2018
- (2) 'B' EDG keep warm pump relay failure on January 16, 2018



- (3) M2LY-110Q, I to P converter associated with chemical and volume control system, on January 18, 2018
- (4) 'B' train control room air conditioning unit 2A instrumentation calibration (removal and installation) and compressor inspection on January 22, 2018
- (5) 'B' direct current switchgear room chiller (Vital chiller) after failure to start on January 24, 2018
- (6) Replacement of SI-647 relay (high pressure safety injection isolation valve) on February 12, 2018

### Unit 3

- (7) Normal station service transformer to bus 34B seismic door replacement on January 23, 2018
- (8) 'B' EDG air compressors following troubleshooting and maintenance associated with inability to restore starting air flasks to normal standby pressure on January 23, 2018
- (9) 'D' steam generator level instrument bistable card on February 9, 2018
- (10) Power range nuclear instrument channel 41 power supply failure and restoration on February 20, 2018
- (11) 'A' wide range containment sump level indication troubleshooting and calibration on February 21, 2018

### 71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

#### Routine (8 Samples)

- (1) Unit 2 'A' EDG monthly surveillances with a slow start on January 3, 2018
- (2) Unit 2 main control valve, main stop valve, and combined intermediate valve operability test on January 19, 2018
- (3) Unit 2 functional test of S/G level and auto auxiliary feedwater initiation logic on February 12, 2018
- (4) Unit 2 auxiliary feedwater valve testing on February 13, 2018
- (5) Unit 3 auxiliary feedwater pump 3FWA\*P2 operational readiness test on January 10, 2018
- (6) Unit 3 SP 3612B.5, Primary Coolant Leakage Outside Containment – Summary Sheet on January 31, 2018
- (7) Unit 3 SP 3646A.2-006, Emergency Diesel Generator B 24 Hour Run and Restart, Revision 002, performed February 20-21, 2018
- (8) Unit 3 'C' SP 600.5, QA Diesel Fuel Oil Delivery Post – Offload Results on February 28, 2018

#### Inservice (2 Samples)

- (1) Unit 2 turbine driven auxiliary feedwater pump quarterly operational testing, MS-V201, V202, and V464 valve stroke and timing tests on January 24, 2018
- (2) Unit 3 SP 3626.10-001, motor control center and rod control booster pump 3SWP\*P3A group B test on February 7, 2018

71114.06 - Drill EvaluationEmergency Planning Drill (1 Sample)

The inspectors evaluated the conduct of a routine Unit 3 emergency planning drill on February 28, 2018.

Drill/Training Evolution (1 Sample)

The inspectors evaluated licensed operator requalification training, including a drill and exercise performance classification opportunity, at Unit 3 on January 9, 2018.

**RADIATION SAFETY**71124.02 - Occupational As Low As Reasonably Achievable (ALARA) Planning and ControlsRadiological Work Planning (1 Sample)

The inspectors evaluated Dominion's radiological work planning by reviewing the following activities:

- (1) ALARA Plan AP-2-17-01
- (2) ALARA Plan AP-2-17-02
- (3) ALARA Plan AP-2-17-13
- (4) ALARA Plan AP-3-17-03
- (5) ALARA Plan AP-3-17-11
- (6) ALARA Plan AP-3-18-01

Verification of Dose Estimates and Exposure Tracking Systems (1 Sample)

The inspectors reviewed the current annual collective dose estimate; basis methodology; and measures to track, trend, and reduce occupational doses for ongoing work activities. The inspectors evaluated the adjustment of exposure estimates or replanning of work. The inspectors reviewed post-job ALARA evaluations.

**OTHER ACTIVITIES – BASELINE**71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below for the period from January 2017 through December 2017. (4 Samples)

Unit 2

- (1) RCS specific activity
- (2) RCS identified leak rate

Unit 3

- (3) RCS specific activity
- (4) RCS identified leak rate

71152 - Problem Identification and Resolution

Annual Follow-up of Selected Issue (1 Sample)

The inspectors reviewed the licensee’s implementation of its corrective action program related to the following issue:

- (1) Continued failures (trips) of the Unit 3 control building chillers (nine failures of the ‘A’ chiller and three failures of the ‘B’ chiller) since implementation of corrective actions for multiple failures of the Unit 3 ‘A’ chiller in 2014.

71153 - Follow-up of Events and Notices of Enforcement Discretion

Licensee Event Reports (1 Sample)

The inspectors evaluated the following licensee event reports which can be accessed at <https://lersearch.inl.gov/LERSearchCriteria.aspx>:

- (1) Licensee Event Report (LER) 2016-001-00, Turbine Driven Auxiliary Feedwater Pump Room HELB [High Energy Line Break] Door Left Open on April 27, 2016.

**INSPECTION RESULTS**

Observations Annual Follow-up of Selected Issues	71152
<p>The inspectors assessed Dominion’s problem identification threshold, assessment and operability determinations for each of the identified issues, maintenance rule applicability, extent of condition reviews, and the prioritization and timeliness of corrective actions to determine whether Dominion staff was appropriately identifying, characterizing, and correcting problems associated with the chillers and whether the corrective actions were appropriate.</p> <p>The prior failures in 2014 involved a failed card, several loose and/or broken connections and an unexpected loose soldered connection (vice crimped), and spurious electrical signal spikes on the bearing temperature module. The inspectors determined these conditions have not recurred; and the subsequent failures have been properly evaluated and adequate corrective actions have been completed and/or planned. Specifically, for each of the chiller failures since 2014, Dominion conducted the appropriate level of cause evaluation and properly identified and implemented appropriate applicable corrective actions. Included in these corrective actions were developing modifications for both chillers to prevent spurious electrical signal spike trips and for replacing the existing electromechanical timers with solid state timers. Dominion also reviewed preventive maintenance activities and adjusted specific activity frequencies to enhance the service life of the components.</p>	

Licensee Event Report (Closed)	Turbine Driven Auxiliary Feedwater Pump Room HELB [High Energy Line Break] Door Left Open on April 27, 2016 LER 2016-001-00	71153
<p><u>Description:</u> On April 27, 2016, with Millstone Power Station Unit 2 in MODE 1 at 100% power, plant personnel inadvertently left the door to the turbine driven auxiliary feed pump room open. This condition existed for less than one hour. The door is a high energy line break (HELB) barrier. With the door open there was no HELB protection for the motor driven auxiliary feedwater pumps thus potentially rendering both trains of auxiliary feedwater inoperable. The licensee determined that the cause was human performance error. The door is conspicuously labeled on each side that it is a HELB boundary door and must be closed except for entry and exit from the room. Corrective actions were taken in accordance with the station's corrective action program, and condition report 1035792 was initiated to address this issue.</p> <p><u>Closure Basis:</u> The inspectors determined that Dominion's immediate actions to close the HELB door and subsequent corrective actions that created a computer based training, assigned to current and future contractor personnel, to reinforce the requirements associated with HELB doors were adequate. The inspectors determined that the failure to close and latch the HELB door represented a Green licensee identified violation of 10 CFR Part 50, Appendix B, Criterion V. This Green licensee identified violation is documented under Inspection Results in Millstone's IR2018001. The inspectors did not identify any new issues during the review of the LER. This LER is closed.</p>		

Licensee Identified Non-Cited Violation	71153
<p>This violation of very low safety significant was identified by the licensee and has been entered into the licensee's corrective action program and is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy.</p> <p>Violation: 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires that "activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings."</p> <p>Section 4.4 of Operating Procedure 2356, "Doors," Revision 004, states in part, "site personnel are responsible for ensuring doors [high energy line break boundary doors] are closed and latched after passage."</p> <p>Contrary to the above, between 7:10 pm and 8:07 pm on April 27, 2016, with Millstone Unit 2 in Mode 1 at 100 percent power, Dominion personnel failed close and latch the HELB barrier door between the steam driven and motor driven auxiliary feedwater pumps, which rendered both trains of auxiliary feedwater inoperable for approximately 57 minutes.</p> <p>Significance/Severity Level: The inspectors evaluated this finding using IMC 0609.04, "Initial Characterization of Findings," and IMC 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions." The inspectors determined that the finding was of very low safety significance (Green).</p> <p>Corrective Action Reference: CR 1035792</p>	

**EXIT MEETINGS AND DEBRIEFS**

The inspectors verified no proprietary information was retained or documented in this report.

- On April 4, 2018, the inspectors presented the quarterly resident inspector inspection results to Mr. John Daugherty, Site Vice President, and other members of the Millstone staff.

**DOCUMENTS REVIEWED****71111.01 - Adverse Weather Protection**Miscellaneous

Surveillance Form SP 3665.2-001, Intake Structure Condition Determination with Vacuum in Condenser, dated March 6, 2018

Surveillance Form SP 2654R-001, Intake Structure Condition Determination (With Vacuum in Condenser), dated March 6, 2018

**71111.04 - Equipment Alignment**Procedures

OP 3304A, Charging and Letdown

SP 3604A.1, Charging Pump 'A' Operational Readiness Test, Revision 017

SP 3612B.5, Primary Coolant Leakage Outside Containment – Summary Sheet, Revision 001-01, performed January 31, 2018

SP 3604A.1, Charging Pump 'A' Leaktightness Verification Check, Revision 005-04, performed January 31, 2018

SP 3626.10-001, Motor Control Center and Rod Control Booster Pump 3SWP\*P3A Group B Test, Revision 012-01

Condition Reports

CA3100943	CA3114923	1068440	1087819
1088497	1088897	1090041	1090044
1090717			

Maintenance Orders/Work Orders

53103053362	53103079863	53103084426	53103104435
53103108717	53203153366		

Miscellaneous

25212-26916, Sheet 4, PID 'B' Emergency Diesel Generator Air Start System, Revision 20  
3C19-CHS01-0002, Alternate Plant Configuration for Isolation of 'A' Charging Pump due to Seal Leakage

25212-26904, Sheet 1, PID Charging and Letdown System, Revision 54

25212-26933, Sheet 2, PID Service Water System, Revision 90

25212-26933, Sheet 4, PID Service Water System, Revision 54

25212-26930, Sheet 2, PID 'B' Auxiliary Feedwater System, Revision 49

25212-26930, Sheet 3, PID Feed Water System, Revision 30

**71111.05 - Fire Protection**Procedures

MP-PROC-ENG-U3-24-FFS-BAP01-ESF-MAP, Revision 0

Millstone Unit 2 Fire Fighting Strategy for Fire Areas: T-10, 13, and 14

Miscellaneous

U3-24-FFS, Millstone Unit 3 Fire Fighting Strategies, Revision 0

Millstone Unit 3 Fire Protection Evaluation Report, Revision 21.3

**71111.06 - Flood Protection Measures**

Condition Reports

CA277474                      1087853

Miscellaneous

ETE-MP-2015-1057, Condition Monitoring of Structures, Revision 0

**71111.11 - Licensed Operator Requalification Program**

Procedures

- SP 2651M, Combined Intermediate Valves Operability Test, Revision 005
- SP 2651L, Main Stop Valve Operability Test, Revision 004-01
- SP 2651N, Main Control Valve Operability Test, Revision 007
- OP 2204, Load Changes, Revision 038
- SP 2651L-002, Quarterly Main Stop Valve Operability Test, Revision 002
- SP 2651M-002, Combined Intermediate Valves Operability Test, Revision 002
- SP 2651N-001, Main Control Operability Test, Revision 003-01
- AOP 2585, Immediate Operator Actions, Revision 003-00
- AOP 2568, Reactor Coolant System Leak, Revision 016
- AOP 2575, Rapid Down Power, Revision 010-00
- EOP 2526, Reactor Trip Recovery, Revision 019-00
- EOP 2525, Standard Post Trip Action, Revision 028-00
- AOP 2586, RCP Malfunctions, Revision 004
- SP 3448E41, Train B – Diesel Sequencer Actuation Logic Test, Revision 006-01
- SP 3646A.2, Emergency Diesel Generator B Operability Test, Revision 025

Work Orders

53102961788                      53103112699                      53203157223

Condition Reports

1088243                      1088260                      1088261                      1090369  
 1090404                      1090469

Miscellaneous

- ER-AA-RXE- Attachment 4, Reactivity Plan, Dated January 19, 2018
- LORP program # S18103, Simulator Exercise Guide Minimum manning/Secondary Malfunctions course # 70260
- LORP program # S18102, Simulator Exercise Guide RCS Leak AOP-2568 course # 70160

**71111.12 - Maintenance Effectiveness**

Procedures

- SP 3626.10-001, Motor Control Center and Rod Control Booster Pump 3SWP\*P3A Group B Test, Revision 012-01
- SP 3604A.1, Charging Pump 'A' Operational Readiness Test, Revision 017

Work Orders

53102987484                      53103053362                      53103079863                      53103084426  
 53103104183                      53103104435                      53103108717                      53203153366

Condition Reports

CA3064516	CA3040023	CA3114923	CA3100943
1068440	1087819	1088497	1088897
1090041	1090044	1090717	

Miscellaneous

Failure report number 361 for 'B' DC SWGR room chiller, dated March 21, 2002  
 Radiation monitors Maintenance Rule Evaluations (MRE) Unit 2, since January 1 2016  
 25212-26933, Sheet 2, PID Service Water System, Revision 90  
 25212-26933, Sheet 4, PID Service Water System, Revision 54  
 3C19-CHS01-0002, Alternate Plant Configuration for Isolation of 'A' Charging Pump due to Seal Leakage  
 25212-26904, Sheet 1, PID Charging and Letdown System, Revision 54  
 25212-26916, Sheet 4, PID 'B' Emergency Diesel Generator Air Start System, Revision 20  
 25212-26930, Sheet 2, PID 'B' Auxiliary Feedwater System, Revision 49

**71111.13 - Maintenance Risk Assessments and Emergent Work Control**

Procedures

IC2418D1, Setting Letdown Limiter LLM – 110 High and Low Limit Setpoints, Revision 001-03  
 C IC 400.05-002, Instrument/Loop Calibration Testing Guidelines, dated January 14, 2013  
 SP 2610CO, AFW system lineup, valve operability and operational readiness tests, operating, Revision 001  
 SP 2610CO-002, 2-FW-43A and 2-FW-43B Failure mode and stroke time IST, Revision 001  
 SP 2610CO-001, Auxiliary feedwater flow path lineup verification, Revision 001  
 SP 2402M, Functional test of steam generator level and auto-aux. feedwater initiation logic, Revision 011  
 SP 3621.4, Main Feedwater Turbine Emergency Governor and Trip Lockout Test, Revision 001  
 SP 3448E41, Train B – Diesel Sequencer Actuation Logic Test, Revision 006-01

Condition Reports

1086031	1090369	1090404	1090469
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Work Orders

53102961788	53103112699	53203149868	53203157223
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Miscellaneous

Medium Risk Plan for CR1086138 dated January 17, 2018  
 Operator risk report unit 2 dated February 13, 2018  
 Operator risk report unit 2 dated February 12, 2018  
 WO# TMC80101  
 EOOS Version 4.1 for Millstone Unit 3 on February 9, 2018  
 EOOS Version 4.1 for Millstone Unit 3 on March 29, 2018  
 High Risk Plan, Eversource TOA 18-00852 and 18-00768  
 EOOS Version 4.1 for Millstone Unit 3 on January 31, 2018  
 EOOS Version 4.1 for Millstone Unit 3 on February 20, 2018



**71111.15 - Operability Determinations and Functionality Assessments**Procedures

ER-M2-THM-201 attachment 1, Feed flow correction factor determination, Revision 0  
 ER-M2-THM-201, Determining feed flow correction factors for MP Unit 2, Revision 0  
 EN 21002, Core Heat Balance, Revision 017  
 SP 2601D-001, Power range channel and delta T power channel calibration, Revision 016-01  
 C SP 600.5, QA Diesel Fuel Oil Delivery Post – Offload Results, Revision 003, performed  
 February 28, 2018

Condition Reports

CA3061625	CA3114923	CA3100943	1078830
1087718	1087785	1087819	1088497
1088558	1088839	1089030	1090041
1090044	1090807		

Maintenance Orders/Work Orders

53203152143	53203153366
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Miscellaneous

Periodic review of OD CR1073242/CA3061625 dated January 11, 2018  
 Prompt operability determination documentation for CR1073242 dated July 14, 2017  
 P&ID 6822-34868A, Reactor Protective System Bistable Trip Unit Schematic, Revision dated  
 December 1, 2004  
 Unit 2 Control room narrative logs, dated January 25, 2018  
 Unit 2 Control room narrative logs, dated March 2, 2018  
 Unit 2 Control room narrative logs, dated February 5-8, 2018  
 Unit 2 Control room narrative logs, dated January 30, 2018  
 25212-26916, Sheet 4, PID 'B' Emergency Diesel Generator Air Start System, Revision 20  
 ETE-MP-2017-1144, Code Case N-513-3 Limit Load Planer Flaw Evaluation on Line 6"-HCD-3,  
 Return to RWST, Revision 0  
 25203-26015, PID L.P. Safety Injection System, Revision 50

**71111.18 - Plant Modifications**Procedures

SP 3612B.5, Primary Coolant Leakage Outside Containment – Summary Sheet, Revision 001-  
 01, performed January 31, 2018  
 SP 3604A.1, Charging Pump 'A' Leaktightness Verification Check, Revision 005-04, performed  
 January 31, 2018

Condition Reports

1088897	1090717
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Miscellaneous

3C19-CHS01-0002, Alternate Plant Configuration for Isolation of 'A' Charging Pump due to Seal  
 Leakage  
 25212-26904, Sheet 1, PID Charging and Letdown System, Revision 54

**71111.19 - Post-Maintenance Testing**Procedures

SP 3447B01A-001R, Containment Sump Wide Range Level Rack Channel Calibration Train A,  
Revision 000, performed February 12, 2018  
SP 3441A10, Power Range Neutron Flux Monitor 41 Channel Calibration, Revision 004

Condition Reports

CA3114923	565360	1087675	1087718
1088410	1088418	1088497	1089726
1089754	1089767	1090369	1090404

Maintenance Orders/Work Orders

53102748541	53102756227	53102916491	53102987484
53103104183	53103123688	53203149868	53203152142
53203152143	53203153366	53203156607	53203156690
53203156704	53203157223		

Miscellaneous

Trouble shooting plan for CR 1087675 M2 Control Element Drive System (CEDS), dated  
January 11, 2018  
Failure report number 361 for 'B' DC SWGR room chiller, dated March 21, 2002  
P&ID 25203-39045 SH 78, Rear Panel Wiring Diagram Engineered Safeguards Section CO-1,  
Revision 17  
25212-26916, Sheet 4, PID 'B' Emergency Diesel Generator Air Start System, Revision 20

**71111.22 - Surveillance Testing**Procedures

SP 2610BO-004, Auxiliary Feedwater Pump Turbine Trip Throttle Valve Exercise Test, Revision  
002  
SP 2610BO-002, Turbine Driven Auxiliary Feedwater Pump and Recirculation Check Valve In-  
Service Inspection Testing (IST), Revision 002  
SP 2610BO-001, 2-MS-201, 2-MS-202, and 2-MS-464 (SV-4188) Stroke and Timing In-Service  
Inspection Testing (IST), Revision 002  
SP 2651M, Combined Intermediate Valves Operability Test, Revision 005  
SP 2651L, Main Stop Valve Operability Test, Revision 004-01  
SP 2651N, Main Control Valve Operability Test, Revision 007  
OP 2204, Load Changes, Revision 038  
ER-AA-RXE- Attachment 4, Reactivity Plan, Dated January 19, 2018  
SP 2651L-002, Quarterly Main Stop Valve Operability Test, Revision 002  
SP 2651M-002, Combined Intermediate Valves Operability Test, Revision 002  
SP 2651N-001, Main Control Operability Test, Revision 003-01  
CM-M2-STI-101, Millstone Unit 2 Technical Specification Surveillance Test Interval (STI0 List,  
Revision 7  
SP 3622.3, Auxiliary Feedwater Pump 3FWA\*P2 Operational Readiness Test, Revision 027  
SP 3622.3-001 Surveillance Form – TDAFW Pump Operational Readiness and Quarterly IST  
Group B Pump Tests, dated January 10, 2018  
SP 2619G, AC Electrical Sources Inoperability, Revision 005  
SP 2613K, Diesel Generator Slow Start Operability Test Facility 1, Revision 007  
SP 2670, Saltwater Cooled HX D/P Determination, Revision 016

OP 2346A, 'A' Emergency Diesel Generator, Revision 034  
 OP 2346A-002, 'A' DG Pre-start Checklist, Revision 021  
 OP 2346A-004, 'A' DG Data Sheet, Revision 024-03  
 SP 2613K-001, Periodic DG Slow Start Operability Test, Facility 1 (Loaded Run), Revision 005  
 SP 2670-004, Diesel Generator 'A' HX D/P Determination, Revision 001-05  
 OP 2346A-009, 'A' DG Air Roll, Revision 000-04  
 SP 2619G-002, TS 3.8.1.1.b – One EDG Inoperable, Revision 002-01  
 SP 2610CO, AFW System Lineup, Valve Operability and Operational Readiness Tests,  
 Operating, Revision 001  
 SP 2610CO-002, 2-FW-43A and 2-FW-43B Failure Mode and Stroke Time IST, Revision 001  
 SP 2610CO-001, Auxiliary Feedwater Flow Path Lineup Verification, Revision 001  
 SP 2402M, Functional Test of Steam Generator Level and Auto-Aux. Feedwater Initiation Logic,  
 Revision 011  
 SP 3646A.2, Emergency Diesel Generator 'B' Operability Test, Revision 025  
 SP 3604A.1, Charging Pump 'A' Operational Readiness Test, Revision 017

#### Work Orders

53102961788	53103053362	53103079863	53103084426
53103096824	53103104435	53103104903	53103104933
53103104942	53103108717	53103112699	53203157223

#### Condition Reports

1068440	1088243	1088260	1088261
1088557	1088897	1090369	1090404
1090469	1090717	1090807	

#### Miscellaneous

ER-AA-RXE- Attachment 4, Reactivity Plan, Dated January 19, 2018  
 25212-26933, Sheet 2, PID Service Water System, Revision 90  
 25212-26933, Sheet 4, PID Service Water System, Revision 54

### **71114.06 - Drill Evaluation**

#### Miscellaneous

EP-AA-103 Attachment 3, Classification Opportunity, for LORTSE55 on January 9, 2018  
 SERO Log Sheet, dated February 28, 2018  
 Drill Incident Response Forms  
 EOF Protective Action Recommendations for Drill dated February 28, 2018  
 Unit 3 Rehearsal Drill Objectives and Critique dated February 28, 2018

### **71151 - Performance Indicator Verification**

#### Procedures

SP 3601F.6, Reactor Coolant System Water Inventory Measurement, Revision 008-00  
 SP 3855, Reactor Coolant Analysis for Dose Equivalent, Rev. 8  
 SP3670.1, Mode 1-4 Daily and Shiftly Control Room Rounds  
 SP 2602A, Reactor Coolant Leakage, Revision 10  
 C OP 200.15, RCS Leakage Trending and Investigation, Revision 3  
 SP 2619A, Control Room Daily Surveillance, Mode 1 & 2, Revision 56

Surveillance Test Reports

SP3855-001, Reactor Coolant Analysis for Dose Equivalent I-131, dated December 4, 2017

SP3855-001, Reactor Coolant Analysis for Dose Equivalent I-131, dated October 9, 2017

SP3855-001, Reactor Coolant Analysis for Dose Equivalent I-131, dated September 11, 2017

Miscellaneous

2017 Monthly Leakage Spreadsheet for Units 2 and 3

2017 RCS Activity Spreadsheet for Units 2 and 3

**71152 - Problem Identification and Resolution**Condition Reports

570737	571897	578532	1001480
1005259	1044700	1054758	1057865
1057896	1073086	1076228	1083510

Miscellaneous

ACE 019884, Green NCV Finding 3HVK\*CHL1A Chiller Trips, September 26, 2014 –  
December 13, 2014, Revision 0

CA3004488, Root Cause Evaluation, CR1005259, Significant Level 2 Multiple Unit 3 'A' Control  
Building Chiller Trips, dated September 11, 2015

ETE-MP-2017-1009, Classification of MPS Systems Using the Tiered Approach to System  
Selection, Revision 0

Modification

MP3-15-01158, Chiller M33HVK\*CHL 1B Bearing and Motor Module Time Delay, January 13,  
2016

Work Orders

53102695494                      53102906138

**71153 - Follow-up of Events and Notices of Enforcement Discretion**Procedures

OP 2356, Doors, Revision 004

Condition Reports

CR1035792

Apparent Cause Evaluation #3030473 (2016)

Apparent Cause Evaluation #019415 (2013)