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

November 6, 2019

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, UNITS 2 AND 3 – INTEGRATED INSPECTION REPORT 05000336/2019003 AND 05000423/2019003

Dear Mr. Stoddard:

On September 30, 2019, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Millstone Power Station, Units 2 and 3. On October 8, 2019, the NRC inspectors discussed the results of this inspection with John Daugherty, Site Vice President and other members of your staff. The results of this inspection are documented in the enclosed report.

One finding of very low safety significance (Green) is documented in this report. This finding involved a violation of NRC requirements. We are treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2 of the Enforcement Policy.

If you contest the violation or significance or severity of the violation documented in this inspection report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region I; the Director, Office of Enforcement; and the NRC Resident Inspector at Millstone.

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 at the NRC Public Document Room in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

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

Docket Nos. 05000336 and 05000423
License Nos. DPR-65 and NPF-49

Enclosure:
As stated

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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Numbers:	05000336 and 05000423
License Numbers:	DPR-65 and NPF-49
Report Numbers:	05000336/2019003 and 05000423/2019003
Enterprise Identifier:	I-2019-003-0048
Licensee:	Dominion Energy Nuclear Connecticut, Inc.
Facility:	Millstone Power Station, Units 2 and 3
Location:	P. O. Box 128 Waterford, CT 06385
Inspection Dates:	July 1, 2019 to September 30, 2019
Inspectors:	E. Allen, Resident Inspector J. Ambrosini, Sr. Emergency Preparedness Inspector J. Brand, Reactor Inspector J. DeBoer, Reactor Inspector J. Fuller, Senior Resident Inspector B. Haagensen, Senior Resident Inspector C. Highley, Resident Inspector L. McKown, Senior Resident Inspector J. Rady, Emergency Preparedness Inspector A. Siwy, Resident Inspector S. Wilson, Senior Health Physicist
Approved By:	Daniel L. Schroeder, Chief Reactor Projects Branch 2 Division of Reactor Projects

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an integrated inspection at Millstone Power Station, Units 2 and 3, 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.

List of Findings and Violations

Failure to establish a preventive maintenance schedule for the Unit 3 emergency diesel generator governor drive components			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000423/2019003-01 Open/Closed	None (NPP)	71111.15
A finding of very low safety significance (Green) and associated non-cited violation (NCV) of Millstone Power Station Unit 3 Technical Specification 6.8.1.a, Procedures and Programs, was self-revealed on July 9, 2019, when the 'A' emergency diesel generator (EDG) automatically stopped during a scheduled operability run. The EDG automatically shut down when the governor drive components seized due to a lack of lubrication. The licensee failed to establish procedures covering the activities referenced in Regulatory Guide 1.33, Revision 2, Appendix A, Section 9 for the preventive maintenance inspection of the governor drive components.			

Additional Tracking Items

None.

PLANT STATUS

Both Units 2 and 3 began the inspection period at rated thermal power (RTP). On July 25, 2019, Unit 2 commenced a planned power reduction to 68 percent RTP to repair a minor steam leak on the feedwater heater system. Unit 2 returned to full RTP on July 26, 2019, and operated at or near full power for the remainder of the cycle.

Unit 3 operated at or near RTP 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 licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

REACTOR SAFETY

71111.04Q - Equipment Alignment

Partial Walkdown Sample (IP Section 03.01) (3 Samples)

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

(1) Unit 2 'B' emergency diesel generator air start system on September 30, 2019
(2) Unit 3 train 'B' auxiliary feed water equipment alignment on August 14, 2019
(3) Unit 3 train 'B' service water equipment alignment on August 20, 2019

71111.04S - Equipment Alignment

Complete Walkdown Sample (IP Section 03.02) (1 Sample)

(1) The inspectors evaluated system configurations during a complete walkdown of the Unit 2 vital 125 volt direct current (DC) electrical bus 201A on August 28, 2019.

71111.05Q - Fire Protection

Quarterly Inspection (IP Section 03.01) (6 Samples)

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

(1) Unit 2 480 volt B61 motor control center (fire area A-13) on July 9, 2019

(2) Unit 2 cable vault (fire area A-24) on July 29, 2019
(3) Unit 2 charging pump room (fire zone A-6A) on August 1, 2019
(4) Unit 3 fuel pool cooling pumps and coolers (fire area FB-2) with focus on fire penetration seals on July 2, 2019
(5) Unit 3 north cable tunnel (fire area SB-2) with penetration seal inoperable and continuous fire watch on July 9, 2019
(6) Unit 3 north emergency generator enclosure (fire area EG-3, zone A) on July 16, 2019

71111.06 - Flood Protection Measures

Inspection Activities - Internal Flooding (IP Section 02.02a.) (1 Sample)

The inspectors evaluated internal flooding mitigation protections in the:

(1) Unit 2 flood zone A-24, cable vault (elevation 25'6") on August 21, 2019

71111.07T - Heat Sink Performance

Triennial Review (IP Section 02.02) (4 Samples)

The inspectors evaluated heat exchanger/sink performance on the following:

(1) Unit 2 DC switchgear cooling, section 02.02.b, heat exchanger, cooled by service water
(2) Unit 2 'A' EDG cooling, section 02.02.b, heat exchanger, cooled by service water
(3) Unit 3 'A', safety injection pump cooler, section 02.02.b, heat exchanger, cooled by service water
(4) Units 2 and 3 ultimate heat sink, section 02.02d, specifically sections 02.02d 5(a), (b), (c), (d) and 02.02d 6(a), (b), (c), (d), (f), and (g) were completed.

71111.11Q - Licensed Operator Requalification Program and Licensed Operator Performance

Licensed Operator Performance in the Actual Plant/Main Control Room (IP Section 03.01) (2 Samples)

(1) The inspectors observed and evaluated licensed operator performance in the Unit 2 control room during OP-2204 Load Changes, Revision 043, which required a reduction of reactor power to 68 percent RTP in support of the repair of a cracked feedwater heater pipe. The inspectors observed the conduct of operations which included three-way communications, senior leadership interaction with the crew, shift manager and unit supervisor management of the crew's conduct, and observation of several alarm response procedures on July 25, 2019.
(2) The inspectors observed and evaluated licensed operator performance in the Unit 3 control room during SP 3643.2 Turbine Overspeed Protection System Test, Revision 013. The test involved a reduction of reactor power to approximately 95 percent RTP and cycling the high pressure turbine control valves, stop valves, and low pressure turbine combined intermediate stop and intercept valves. The inspectors observed the conduct of operations which included three-way communications, senior leadership interaction with the crew, shift manager and unit supervisor management

of the crew's conduct, observation of response to several unexpected annunciators, and prioritization of personnel resources on August 9, 2019.

Licensed Operator Requalification Training/Examinations (IP Section 03.02) (2 Samples)

(1) The inspectors observed and evaluated licensed operator performance on the Unit 2 simulator during a loss of reactor building component cooling water, complete loss of feed water flow, reactor scram, and feeding of steam generators from the condensate pumps. Additionally, the inspectors observed classification of events for unusual event and alert. Instructor interaction with the crew and three-way communication was also observed on September 3, 2019.
(2) The inspectors observed and evaluated licensed operator performance in the Unit 3 simulator during Licensed Operator Requalification Program Cycle 19-5. The licensed operator requalification training included four evaluated scenarios in the Unit 3 simulator. The inspectors observed license operator performance, the ability of the licensee to administer the evaluation, the post-scenario critique, and follow up of the critical task to isolate reactor coolant pump seals within established time limits on September 17, 2019.

71111.12 - Maintenance Effectiveness

Routine Maintenance Effectiveness Inspection (IP Section 02.01) (2 Samples)

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

(1) Unit 2 maintenance rule functional failure evaluation for a fuel oil leak on the 'A' EDG that occurred on March 1, 2019 and was documented in CA7531599
(2) Unit 2 fire protection and deluge system (system 2341) on July 31, 2019

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (4 Samples)

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

(1) Unit 2 elevated risk due to emergent tube leak in the 'C' reactor building component cooling water heat exchanger on August 20, 2019
(2) Unit 2 elevated risk during planned work activities (engineered safeguards actuation signal testing, automatic auxiliary feedwater initiation logic testing, and a 'B' EDG operability test) on September 9, 2019
(3) Unit 3 elevated risk due to emergent failure of Unit 3 'A' EDG on July 9 and 10, 2019
(4) Units 2 and 3 elevated risk due to planned high risk switch-yard work on the 15G-2T-8 breaker from August 13 to August 16, 2019

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 02.02) (5 Samples)

The inspectors evaluated the following operability determinations and functionality assessments:

(1) Unit 2 'B' atmospheric dump valve intermittently opening approximately 5 percent and closing on September 20, 2019 (CR 1131471)
(2) Unit 3 leakage from 3RSS*MOV23D ('D' containment recirculation pump suction isolation valve) documented in CR 1118124
(3) Unit 3 'A' EDG failure to run (CR1126559 and CR1126657) on July 9, 2019
(4) Unit 3 digital rod position indication operability review (CR 1127184 and CR 1123841) on July 31, 2019
(5) Unit 3 nonconservative technical specification value for station battery connection resistance value (CR 1129409) on August 22, 2019

71111.18 - Plant Modifications

Temporary Modifications and/or Permanent Modifications (IP Section 03.01 and/or 03.02) (1 Sample)

The inspectors evaluated the following temporary or permanent modifications:

(1) Unit 3 digital rod position indication for rod H-12 temporary modification to card to jumper out coil #20 on July 25, 2019

71111.19 - Post-Maintenance Testing

Post-Maintenance Test Sample (IP Section 03.01) (7 Samples)

The inspectors evaluated the following post-maintenance tests:

(1) Unit 2 'C' charging pump replacement of oil lip seals on plungers and repack of charging pump outlet isolation valve (M22-CH-336) on August 3, 2019 (WO 53203221297 and 53203164218)
(2) Unit 2 'C' reactor building component cooling water tube leak repair on August 21, 2019
(3) Unit 2 replacement of PY-4224-1, the current to pneumatic converter for 'B' atmospheric dump valve (2-MS-190B), on September 22, 2019
(4) Unit 3 'A' EDG after repair to mechanical governor and governor drive box on July 14 and 17, 2019
(5) Unit 3 clean lubricate and adjust reactor plant ventilation (HVR) air operated damper 33 'B' on August 15, 2019
(6) Unit 3 engineered safety features building ventilation (HVQ) air conditioning unit 2 'B', following the heat exchanger inspection on August 19, 2019
(7) Unit 3 degraded filter capacitor replacement associated with the auxiliary feedwater control valve 3FWA*HV36C controller/positioner on September 26, 2019 (WO 53203255131)

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

Surveillance Tests (other) (IP Section 03.01) (2 Samples)

(1) Unit 3 'B' EDG fast start and run on July 23, 2019
(2) Unit 3 SP 3646A.8 "Containment Spray Actuation S931 Relay K645, Slave Relay" on August 6, 2019

71114.02 - Alert and Notification System Testing

Inspection Review (IP Section 02.01-02.04) (1 Sample)

(1) The inspectors evaluated Dominion's maintenance and testing of the Millstone alert and notification system on August 5–8, 2019, for the period of August 2017 through July 2019.

71114.03 - Emergency Response Organization Staffing and Augmentation System

Inspection Review (IP Section 02.01-02.02) (1 Sample)

(1) The inspectors evaluated the readiness of Dominion's Emergency Preparedness Organization on August 5–8, 2019.

71114.04 - Emergency Action Level and Emergency Plan Changes

Inspection Review (IP Section 02.01-02.03) (1 Sample)

(1) The inspectors evaluated the following submitted Emergency Action Level and Emergency Plan changes onsite on August 5–8, 2019.

- EP-AA-101, 10CFR50.54(q) Change Evaluation, Revision 8
- MP-19-04S, C OP 200.5, Oil, Hazardous Material, Hazardous Waste, and Mixed Contingency Plan, Revision 8
- MP-19-05S, Millstone Power Station Emergency Preparedness Plan, Revision 60
- MP-19-06S, Millstone Procedure Updates from Changes to EPA-400 Guidance
- MP-19-07S, Unit 2 EAL Technical Basis
- MP-19-08S, Unit 3 EAL Technical Basis

This evaluation does not constitute NRC approval.

71114.05 - Maintenance of Emergency Preparedness

Inspection Review (IP Section 02.01 - 02.11) (1 Sample)

(1) The inspectors evaluated the maintenance of the emergency preparedness program on August 5–9, 2019, for the period of August 2017 through July 2019.

71114.06 - Drill Evaluation

Drill/Training Evolution Observation (IP Section 03.02) (1 Sample)

The inspectors evaluated:

(1) Unit 2 emergency planning drill on July 9, 2019

RADIATION SAFETY

71124.05 - Radiation Monitoring Instrumentation

Walk Downs and Observations (IP Section 02.01) (1 Sample)

The inspectors evaluated radiation monitoring instrumentation during plant walkdowns.

(1) The inspectors reviewed the following:

Portable Survey Instruments

- Eberline RO-20
- MGP AMP-100
- MGP Telepole
- RADEYE GX
- Far West Technology REM 500

Source Check Demonstration

- Thermo ED
- Canberra HPGe
- Eberline RO-20
- MGP Telepole

Area Radiation Monitors and Continuous Air Monitors

- U2 Radwaste Exhaust Monitor 8999
- U2 Aerated Liquid Radwaste Monitor RM-9116
- U2 Refuel Area Radiation Monitor RM-7891
- U2 Stack Monitor RM-8132A and 8132B
- U3 Waste Neutralizer Sump Discharge Rad Monitor 3CNDRE07
- U3 Containment Radiation Monitor RMS*RE0-5A

Personnel Contamination Monitors, Portal Monitors and Small Article Monitors

- U2 RCA Exit TEM
- U2 RCA Exit PCM
- U3 RCA Exit TEM

Calibration and Testing Program (IP Section 02.02) (1 Sample)

The inspectors evaluated the calibration and testing program implementation.

(1) The inspectors reviewed the following:

Alarm Setpoint and Calibration Method Check of Personnel Contamination Monitors, Portal Monitors and Small Article Monitors

- Whole Body Counters - Fastscan and Accuscan onsite
- PM-12 at Dosimetry office

Failure to Meet Calibration or Source Check Acceptance Criteria

- RO-20,
- MGP Telepole
- RADEYE GX

71124.07 - Radiological Environmental Monitoring Program

Site Inspection (IP Section 02.01) (1 Sample)

The inspectors evaluated the radiological environmental monitoring program implementation.

(1) The inspectors reviewed the following:

Walkdowns, Calibrations, and Maintenance Record Review

- NAP Parking Lot North air monitoring station and TLD location
- Weather Shack air monitoring station and TLD location
- Bird Sanctuary air monitoring station,TLD and Soil sample location

Environmental Sample Collections and Preparation Observation

- REMP DIscharge location continuous liquid sampler
- NAP Parking Lot North vegetation sample location. Vegetation sample demonstrated/observed
- Niantic Shoals bottom sediment sample observed
- Niantic Bay lobster and fish samples observed

Licensee Actions in Response to Missed Sample, Inoperable Sampler, Lost TLD or Anomalous Measurement

- Increased tritium activity in discharge sample location 32 (CR1124525)
- Goshen Fire Department air sampling station vegetation encroachment (CR1085353)

Sampling Program for the Potential of Licensed Material Entering Groundwater

- Underground piping testing and maintenance program
- Storage tank monitoring

Groundwater Protection Initiative (GPI) Implementation (IP Section 02.02) (2 Samples)

(1) The inspectors verified that the licensee is continuing to implement the voluntary Nuclear Energy Institute/ Industry Ground Water Protection Initiative.
(2) The inspectors observed groundwater sampling from monitoring well S1-MW-1.

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

EP01: Drill/Exercise Performance (IP Section 02.12) (1 Sample)

(1) January 1, 2018 - June 30, 2019

EP02: ERO Drill Participation (IP Section 02.13) (1 Sample)

(1) January 1, 2018 - June 30, 2019

IE03: Unplanned Power Changes per 7000 Critical Hours Sample (IP Section 02.02) (1 Sample)

(1) Unit 2 (April 1, 2019 - June 30, 2019)

EP03: Alert & Notification System Reliability (IP Section 02.14) (1 Sample)

(1) January 1, 2018 - June 30, 2019

MS05: Safety System Functional Failures (SSFFs) Sample (IP Section 02.04) (2 Samples)

(1) Unit 2 (October 1, 2018 - June 30, 2019)
(2) Unit 3 (October 1, 2018 - June 30, 2019)

MS06: Emergency AC Power Systems (IP Section 02.05) (2 Samples)

(1) Unit 2 (October 1, 2018 - June 30, 2019)
(2) Unit 3 (October 1, 2018 - June 30, 2019)

MS07: High Pressure Injection Systems (IP Section 02.06) (2 Samples)

(1) Unit 2 (October 1, 2018 - June 30, 2019)
(2) Unit 3 (October 1, 2018 - June 30, 2019)

MS08: Heat Removal Systems (IP Section 02.07) (2 Samples)

(1) Unit 2 (October 1, 2018 - June 30, 2019)
(2) Unit 3 (October 1, 2018 - June 30, 2019)

MS09: Residual Heat Removal Systems (IP Section 02.08) (2 Samples)

(1) Unit 2 (October 1, 2018 - June 30, 2019)
(2) Unit 3 (October 1, 2018 - June 30, 2019)

MS10: Cooling Water Support Systems (IP Section 02.09) (2 Samples)

(1) Unit 2 (October 1, 2018 - June 30, 2019)
(2) Unit 3 (October 1, 2018 - June 30, 2019)

OR01: Occupational Exposure Control Effectiveness Sample (IP Section 02.15) (1 Sample)

The inspectors reviewed the following criteria and verified the licensee's reporting of the performance indicator for the previous four quarters.

(1)
- Technical specification high radiation area (>1 rem per hour) occurrences
- Very high radiation area occurrences
- Unintended exposure occurrences

For the previous four calendar quarters no occurrences were identified. The licensee accurately reported the results of this indicator.

PR01: Radiological Effluent Technical Specifications/Offsite Dose Calculation Manual Radiological Effluent Occurrences (RETS/ODCM) Radiological Effluent Occurrences Sample. (IP Section 02.16) (1 Sample)

The inspectors reviewed the number of RETS/ODCM Radiological Effluent Occurrences each quarter for the previous year involving assessed dose in excess of the indicator effluent values.

(1) For the previous four calendar quarters no occurrences were identified. The licensee accurately reported the results of this indicator.

71152 - Problem Identification and Resolution

Annual Follow-up of Selected Issues (IP Section 02.03) (3 Samples)

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

(1) Long-term challenges with Unit 3 service water radiation monitors SWP*RE60A and SWP*RE60B
(2) Corrective actions for Unit 2 125Vdc vital buses 201A and 201B permanent and intermittent ground issues over the last three years
(3) Corrective actions and extent of condition associated with the failure of an underground stainless steel pipe to the condensate surge tank that leaked greater than 100 gallons of water to the ground on August 2, 2018 at Millstone Unit 3 (EN 53533)

INSPECTION RESULTS

<table>
<tr><td colspan="4">Failure to establish a preventive maintenance schedule for the Unit 3 emergency diesel generator governor drive components</td></tr>
<tr><td>Cornerstone</td><td>Significance</td><td>Cross-Cutting Aspect</td><td>Report Section</td></tr>
<tr><td>Mitigating Systems</td><td>Green
NCV 05000423/2019003-01
Open/Closed</td><td>None (NPP)</td><td>71111.15</td></tr>
<tr><td colspan="4">A finding of very low safety significance (Green) and associated non-cited violation (NCV) of Millstone Power Station Unit 3 Technical Specification 6.8.1.a, Procedures and Programs, was self-revealed on July 9, 2019, when the 'A' emergency diesel generator (EDG) automatically stopped during a scheduled operability run. The EDG automatically shut down when the governor drive components seized due to a lack of lubrication. The licensee failed to establish procedures covering the activities referenced in Regulatory Guide 1.33, Revision 2, Appendix A, Section 9 for the preventive maintenance inspection of the governor drive components.</td></tr>
<tr><td colspan="4">Description: Millstone Unit 3 has two EDGs that provide emergency AC power if off-site power is lost. On July 9, 2019, the unit 3 ‘A’ EDG unexpectedly stopped when the governor drive components seized due to a lack of lubrication. The governor drive is connected to the engine shaft by a pinion gear. The tachometer drive is driven by the vertical governor drive unit.

Examination of the damaged governor drive components revealed excessive wear on the tachometer drive shaft bushings. Specifically, the wear on the tachometer drive unit bushings caused an oil drain port on the bushing to be worn to the point where lubrication through the oil port was blocked. Blockage of the oil flow through the bushings caused them to overheat and seize. This damage to the governor/tachometer drive unit caused the tachometer relay to lose its speed input from the signal generator and loss of driving force to the governor actuator, which resulted in the EDG unloading and subsequently tripping.

The licensee promptly entered this issue in their corrective action program, performed an operability run of the 'B' EDG on July 10, 2019, and began repairs to the 'A' EDG. The 'A' EDG was restored on July 17, 2019, within the allowed outage time. On September 10, 2019, the 'B' EDG governor drive components were inspected and found to be in acceptable condition.

The licensee identified that they had not established maintenance procedures that included an inspection of the governor drive for wear, as recommended by the Fairbanks Morse Owners' Group (FMOG). The licensee found that there is a recommendation by the FMOG to inspect the governor drive unit for wear every one to two years. The inspectors noted that this recommendation has existed at least since January 15, 2008, when revision 1 of the FMOG governor maintenance recommendations was issued. In addition, it is recommended that the tachometer drive should be inspected when the mechanical actuator is replaced. The current preventive maintenance frequency for the Millstone Unit 3 EDG mechanical actuator replacement is on a 4R (6 year) frequency. The licensee's review of the EDG maintenance history revealed that no maintenance had been performed on any piece or part of the governor drive unit. The licensee's causal evaluation stated that "the inspection of the governor/tachometer drive unit most likely would have detected the worn bushings and allowed Millstone to take preventive action prior to this failure."</td></tr>
</table>

Corrective Actions: The licensee entered the unexpected shutdown of 'A' EDG into the corrective action program. The licensee completed a level of effort evaluation (LEE 7641061) to identify the causes, evaluate the extent of condition, and identify appropriate corrective actions. The licensee created corrective actions to establish a preventive maintenance schedule for the 3A and 3B EDG governor/tachometer drive unit internals based on the FMOG recommendations. They also created a corrective action to compare the current EDG preventive maintenance procedures to the FMOG recommendations.

Corrective Action References: CR1126559, CR1126657, CR1126720, CA7641061

Performance Assessment:

Performance Deficiency: Dominion's failure to establish written procedures covering the activities referenced in Section 9.b of Appendix A to Regulatory Guide 1.33, Revision 2, February 1978, as required by Technical Specification 6.8.1.a, was determined to be a performance deficiency.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Procedure Quality attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The failure to establish adequate preventive maintenance procedures adversely affected the reliability and availability of the Unit 3 EDGs.

Significance: The inspectors assessed the significance of the finding using Appendix A, “The Significance Determination Process (SDP) for Findings At-Power.” The inspectors determined the finding to be of very low safety significance (Green) because the finding did not: 1) affect the design or qualification of a mitigating SSC, 2) represent the loss of a system or function, 3) represent an actual loss of function of a single train for greater than its technical specification allowed outage time, and 4) did not represent an actual loss of function of one or more non technical specification trains of equipment designated as high safety-significant in accordance with the licensee's maintenance rule program for greater than 24 hours.

Cross-Cutting Aspect: Not Present Performance. No cross-cutting aspect was assigned to this finding because the inspectors determined the finding did not reflect present licensee performance.

Enforcement:

Violation: Millstone Unit 3 Technical Specification 6.8.1, “Procedures and Programs,” states that written procedures shall be established, implemented, and maintained covering the activities referenced in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978.

Section 9.b of Regulatory Guide 1.33, Appendix A, Revision 2, February 1978, states in part that “Preventive maintenance schedules should be developed to specify lubrication schedules, inspections of equipment, replacement of such items as filters and strainers, and inspection or replacement of parts that have a specific lifetime such as wear rings.”

Contrary to the above, since January 15, 2008, the licensee had failed to establish and implement written procedures covering the preventive maintenance schedules described in Section 9.b of Regulatory Guide 1.33, Appendix A. Specifically, the licensee failed to establish preventive maintenance schedules to inspect the Unit 3 ‘A’ EDG governor drive

components for wear as recommended by the FMOG, which led to the failure of the governor drive unit and inoperability of the 3A EDG on July 9, 2019.

Enforcement Action: This violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy.

EXIT MEETINGS AND DEBRIEFS

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

- On October 8, 2019, the inspectors presented the integrated inspection results to John Daugherty, Site Vice President and other members of the licensee staff.
- On July 11, 2019, the inspectors presented the radiation monitoring instrumentation inspection debrief, IP 71124.05 inspection results to John Daugherty, Site Vice President and other members of the licensee staff.
- On August 1, 2019, the inspectors presented the radiological environmental monitoring program inspection and performance indicators OR01 and PR01 verification; inspection procedures 71124.07 and 71151 inspection results to John Daugherty, Site Vice President and other members of the licensee staff.
- On August 8, 2019, the inspectors presented the emergency preparedness program inspection results to Lori Armstrong, Director of Safety and Licensing and other members of the licensee staff.
- On September 19, 2019, the inspectors presented the triennial heat sink inspection results to John Daugherty, Site Vice President and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.04Q	Procedures	OP-2346C-005	'B' EDG Starting Air Valve Alignment	Revision 1
71111.05Q	Procedures	SFP 17	Fire Penetration Seal and Barrier Inspections	Revision 003-03
		SFP 17-016	Unit 3 Fire Penetration Seal and Barrier Inspection - Group 7	Revision 001
71111.06	Calculations	NOTEBK-PRA-MPS2-IF.2	Millstone Power Station Unit 2 PRA Model Notebook - Internal Flooding	Revision 6
	Corrective Action Documents	CR447663		
	Procedures	ARP 2590I	Alarm Response for Fire Panel C-26	Revision 012
71111.11Q	Procedures	OP 2318	Extraction Steam	Revision 016
71111.12	Corrective Action Documents	CA7531599		
71111.13	Miscellaneous		High Risk Plan for 15G-2T-8 Disconnect Switch	07/24/2019
71111.15	Corrective Action Documents	1123841		
		1127184		
		CA7641061		
		CA7641063		
		CR 1118124		
		CR1126559		
		CR1126657		
		CR1126720		
		CR1131471		
	Drawings	25212-22187		Revision 12
	Miscellaneous		Fairbanks Morse Owners' Group Pielstick Engine Maintenance Guidelines and Good Practices	Revision 2
	Work Orders	53203242035		Revision 0
		53203250557		
71111.18	Engineering Changes	MP3-19-01096	Temp Bypass Digital Rod Position Indicator (DRPI) Coil 20	Revision 1
71111.19	Miscellaneous	Troubleshooting Sheet for	'B' ADV	09/20/2019

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		CR1131471		
	Procedures	MP 3720CD	Emergency Diesel Generator Slow Speed Start and Run-in	Revision 18
		SP 3646A.1	Emergency Diesel Generator A Operability Test	Revision 030
	Work Orders	53102900181		Revision 0
		53203164218		
		53203221297		
		53203255131		Revision 0
71114.02	Miscellaneous		Dominion Millstone Alert and Notification System Upgrade Project FEMA REP-10 Design Report Addendum	Revision 0
71114.03	Miscellaneous		Millstone Unit 2 and 3 On-Shift Staffing Analysis	Revision 0
71114.05	Miscellaneous		Millstone Power Station Emergency Preparedness Plan	Revision 60
71124.05	Procedures	RPM 4.3.6 Health Physics Support Procedure	RO-2, RO-2A, and RO-20 Dose Rate Meter Calibration	Revision 6
		RPM 4.6.6, Health Physics Support Procedure	Electronic Dosimeter Calibration Verification	Revision 9
71124.07	Corrective Action Documents	CR1124525		
	Miscellaneous	2018 Radiological Environmental Operating Report	Millstone Power Station 2018 Radiological Environmental Operating Report	Under cover letter dated April 28, 2019
71152	Corrective Action Documents	CA7350347		
		CA7360618		
		CA7626118		
		CR1063323		
		CR1063896		
		CR1064161		
		CR1066292		
		CR1070752		
		CR1082139		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		CR1087481		
		CR1100975		
		CR1101178		
		CR1102540		
		CR1106042		
		CR1106609		
		CR1106855		
		CR1110717		
		CR1125092		
	Procedures	ARP 2590F-085	Alarm Response Procedure for 125 Vdc Bus 201A Ground	Revision 0
		ARP 2590F-086	Alarm Response Procedure for 125 Vdc Bus 201B Ground	Revision 0
		OP 2388A	Unit 2 Ground Isolation and Electrical Distribution	Revision 8
	Work Orders	53103014767		
		53103030361		
		53103134760		
		53203223718		
		53203224072		
		53203227181		11/14/2018