



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION I
2100 RENAISSANCE BLVD., SUITE 100
KING OF PRUSSIA, PA 19406-2713

September 12, 2014

Mr. David Heacock
President and Chief Nuclear Officer
Dominion Resources
5000 Dominion Boulevard
Glen Allen, VA 23060-6711

**SUBJECT: MILLSTONE POWER STATION – NRC PROBLEM IDENTIFICATION AND
RESOLUTION INSPECTION REPORT 05000336/2014009 AND
05000423/2014009**

Dear Mr. Heacock:

On July 31, 2014, the United States Nuclear Regulatory Commission (NRC) completed an inspection at your Millstone Power Station, Units 2 and 3. The enclosed report documents the inspection results, which were discussed on July 31, 2014 with Mr. Stephen E. Scace, Site Vice President, and other members of your staff.

This inspection examined activities conducted under your license as they relate to identification and resolution of problems and compliance with the Commission's rules and regulations and conditions of your license. Within these areas, the inspection involved examination of selected procedures and representative records, observations of activities, and interviews with personnel.

No findings were identified.

Based on the samples selected for review, the inspectors concluded that Dominion was generally effective in identifying, evaluating, and resolving problems. Dominion personnel identified problems and entered them into the corrective action program at a low threshold. Dominion prioritized and evaluated issues commensurate with the safety significance of the problems and corrective actions were generally implemented in a timely manner.

In accordance with Title 10 of the *Code of Federal Regulations* (CFR) 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

D. Heacock

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Sincerely,

/RA/

Raymond R. McKinley, Chief
Reactor Projects Branch 5
Division of Reactor Projects

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

Enclosure: Inspection Report 05000336/2014009 and 05000423/2014009
w/Attachment: Supplementary Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket Nos. 50-336 and 50-423

License Nos. DPR-65 and NPF-49

Report Nos. 05000336/2014009 and 05000423/2014009

Licensee: Dominion Nuclear Connecticut, Inc.

Facility: Millstone Power Station, Units 2 and 3

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

Dates: July 14, 2014 through July 31, 2014

Team Leader: S. Barber, Senior Project Engineer

Inspectors: B. Haagensen, Resident Inspector
A Bolger, Emergency Response Coordinator
M. Fannon, Reactor Engineer

Approved by: Raymond R. McKinley, Chief
Reactor Projects Branch 5
Division of Reactor Projects

SUMMARY

IR 05000336/2014009, 05000423/2014009; 07/14/2014 – 07/31/2014; Millstone Power Station, Units 2 and 3; Biennial Baseline Inspection of Problem Identification and Resolution.

This NRC team inspection was performed by three regional inspectors and one resident inspector. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 5.

Problem Identification and Resolution

The inspectors concluded that Dominion was generally effective in identifying, evaluating, and resolving problems. Dominion personnel identified problems, entered them into the corrective action program at a low threshold, and prioritized issues commensurate with their safety significance. In most cases, Dominion appropriately screened issues for operability and reportability, and performed causal analyses that appropriately considered extent of condition, generic issues, and previous occurrences. The inspectors also determined that Dominion typically implemented corrective actions to address the problems identified in the corrective action program in a timely manner.

The inspectors concluded that, in general, Dominion adequately identified, reviewed, and applied relevant industry operating experience to Millstone Power Station, Units 2 and 3 operations. In addition, based on those items selected for review, the inspectors determined that Dominion's self-assessments and audits were thorough.

Based on the interviews the inspectors conducted over the course of the inspection, observations of plant activities, and reviews of individual corrective action program and employee concerns program issues, the inspectors did not identify any indications that site personnel were unwilling to raise safety issues nor did they identify any conditions that could have had a negative impact on the site's safety conscious work environment.

No findings were identified.

REPORT DETAILS

4. OTHER ACTIVITIES (OA)

4OA2 Problem Identification and Resolution (71152B)

This inspection constitutes one biennial sample of problem identification and resolution as defined by Inspection Procedure 71152. All documents reviewed during this inspection are listed in the Attachment to this report.

.1 Assessment of Corrective Action Program Effectiveness

a. Inspection Scope

The inspectors reviewed the procedures that described Dominion's corrective action program (CAP) at Millstone Power Station, Units 2 and 3. To assess the effectiveness of the corrective action program, the inspectors reviewed performance in three primary areas: problem identification, prioritization and evaluation of issues, and corrective action implementation. The inspectors compared performance in these areas to the requirements and standards contained in 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," and Dominion procedure PI-AA-200, "Corrective Action." For each of these areas, the inspectors considered risk insights from the station's risk analysis and reviewed condition reports selected across the seven cornerstones of safety in the NRCs Reactor Oversight Process. Additionally, the inspectors attended multiple Condition Review Team (CRT), Corrective Action Assignment Review Team (CAART) and Corrective Action Review Board (CARB) meetings. The inspectors selected items from the following functional areas for review: engineering, operations, maintenance, emergency preparedness, radiation protection, chemistry, physical security, and oversight programs.

(1) Effectiveness of Problem Identification

In addition to the items described above, the inspectors reviewed system health reports, a sample of completed corrective and preventative maintenance work orders, completed surveillance test procedures, operator logs, and periodic trend reports. The inspectors also completed field walkdowns of various systems on site, such as the electrical distribution and safety injection systems. Additionally, the inspectors reviewed a sample of condition reports written to document issues identified through internal self-assessments, audits, emergency preparedness drills, and the operating experience program. The inspectors completed this review to verify that Dominion entered conditions adverse to quality into their corrective action program as appropriate.

(2) Effectiveness of Prioritization and Evaluation of Issues

The inspectors reviewed the evaluation and prioritization of a sample of condition reports issued since the last NRC Biennial Problem Identification and Resolution inspection completed in June 2012. The inspectors also reviewed condition reports that were assigned lower levels of significance that did not include formal cause evaluations to ensure that they were properly classified. The inspectors' review included the appropriateness of the assigned significance, the scope and depth of the causal

analysis, and the timeliness of resolution. The inspectors assessed whether the evaluations identified likely causes for the issues and developed appropriate corrective actions to address the identified causes. Further, the inspectors reviewed equipment operability determinations, reportability assessments, and extent-of-condition reviews for selected problems to verify these processes adequately addressed equipment operability, reporting of issues to the NRC, and the extent of the issues.

(3) Effectiveness of Corrective Actions

The inspectors reviewed Dominion's completed corrective actions through documentation review and, in some cases, field walkdowns to determine whether the actions addressed the identified causes of the problems. The inspectors also reviewed condition reports for adverse trends and repetitive problems to determine whether corrective actions were effective in addressing the broader issues. The inspectors reviewed Dominion's timeliness in implementing corrective actions and effectiveness in precluding recurrence for significant conditions adverse to quality. The inspectors also reviewed a sample of condition reports associated with selected non-cited violations and findings to verify that Dominion personnel properly evaluated and resolved these issues. In addition, the inspectors expanded the corrective action review to five years to evaluate Dominion actions related the Unit 2 Emergency Diesel Generators (EDGs).

b. Assessment

(1) Effectiveness of Problem Identification

Based on the selected samples, plant walkdowns, and interviews of site personnel in multiple functional areas, the inspectors determined that Dominion identified problems and entered them into the corrective action program at a low threshold. Dominion staff at Millstone Power Station, Units 2 and 3 initiated approximately 28,000 condition reports between June 2012 and June 2014. The inspectors observed supervisors at the CRT, CAART and CARB meetings appropriately questioning and challenging condition reports to ensure clarification of the issues. Based on the samples reviewed, the inspectors determined that Dominion trended equipment and programmatic issues, and appropriately identified problems in condition reports. The inspectors verified that conditions adverse to quality identified through this review were entered into the corrective action program as appropriate. Additionally, inspectors concluded that personnel were identifying trends at low levels. In general, inspectors did not identify any issues or concerns that had not been appropriately entered into the corrective action program for evaluation and resolution. In response to several questions and minor equipment observations identified by the inspectors during plant walkdowns, Dominion personnel promptly initiated condition reports and/or took immediate action to address the issues.

(2) Effectiveness of Prioritization and Evaluation of Issues

The inspectors determined that, in general, Dominion appropriately prioritized and evaluated issues commensurate with the safety significance of the identified problem. Dominion screened condition reports for operability and reportability, categorized the condition reports by significance, and assigned actions to the appropriate department

for evaluation and resolution. The condition report screening process considered human performance issues, radiological safety concerns, repetitiveness, adverse trends, and potential impact on the safety conscious work environment.

Based on the sample of condition reports reviewed, the inspectors noted that the guidance provided by Dominion corrective action program implementing procedures appeared sufficient to ensure consistency in the categorization of issues. Operability and reportability determinations were generally performed when conditions warranted and in most cases, the evaluations supported the conclusion. Causal analyses appropriately considered the extent of condition or problem, generic issues, and previous occurrences of the issue. However, the inspectors did observe some weaknesses in Dominion's prioritization and evaluation of the following issues:

Missed Common Cause Evaluation for the Unit 2 'B' Emergency Diesel Generator

During a planned five year review of a selected safety-related system, the inspectors identified a potential technical specification (TS) noncompliance with the Unit 2 'B' EDG. Specifically, CR354040 documented the need to do a common cause failure evaluation within 24 hours per TS 3.8.1.1. Action b.2 for a failed time delay relay and one was not performed in a timely manner.

On August 19, 2009, the TC065 time delay relay for the 'B' EDG was declared inoperable because it would not change state during a routine calibration. On September 1, 2009, the TC057 time delay relay for the 'A' EDG was declared inoperable because it also would not change state. Each of these time delay relays, also designated as the TD6 relay, blocks nonessential EDG trips just prior to and shortly after an emergency start. Both of these defective relays were replaced prior to restoring the affected EDG to an operable status from their preplanned system outage windows. In CR354040, the system engineer indicated that these relays may have a safety function and the failure of the TC065 relay may have caused a historical inoperability of the 'B' EDG. This condition should have required a common cause failure evaluation per TS 3.8.1.1. Action b.2. The inspectors reviewed the operator logs to determine if an evaluation had been completed. On August 20, 2009, at 10:06 a.m., the control logs did evaluate the functions of the TD1, TD2, and TD3 time delay relay for the 'B' EDG and adequately described why these degraded relays did not impact the EDG's ability to start and load. However, there was no discussion or evaluation of the TD6 relay. When questioned by the inspectors, Operations was unable to produce any other records from that time period that showed that the common cause evaluation was performed within 24 hour per TS 3.8.1.1. Action b.2.

The inspectors reviewed engineering evaluation 25203-ER-09-0036 dated October 27, 2009, which documented Dominion's historical operability review of the TC057 and TC065 time delay relay failures. In this evaluation, Dominion identified that a different relay, the ESS relay, also blocks nonessential EDG trips during and following a valid emergency start per the original plant design. This evaluation also stated that the functions of the TC057 and TC065 time delay relays were added by a 1976 plant design change to ensure that any pre-existing nonessential EDG trips would not impact EDG emergency start capability. Their function was noted as redundant and was not essential in assuring EDG operability. The inspectors reviewed this evaluation and had no basis to disagree with this conclusion. However, the inspectors noted that this evaluation took more than two months to complete from the date of the original relay

failure. Thus, the EDG could have been susceptible to a common cause failure during this time frame because this condition was not evaluated in a timely manner.

The inspectors independently evaluated the deficiencies noted above for significance in accordance with the guidance in IMC 0612, Appendix B, "Issue Screening," and Appendix E, "Examples of Minor Issues." The inspectors noted that: 1) engineering evaluation 25203-ER-09-0036 concluded that safety-related function of blocking of nonessential trips was performed by a different relay, the ESS relay, which made the function of the TD6 relays redundant, and 2) the need to do the TS related common cause failure evaluation became moot once the relays were determined to be non-essential with respect to EDG operability. Thus, the inspectors determined that this deficiency was of minor significance and, therefore, was not subject to enforcement action in accordance with the NRC's Enforcement Policy. Dominion documented this issue in CR555383.

10 CFR 21 Reportability for Degraded Unit 2 Reactor Protection System Relays

On April 20, 2014, Dominion determined that nine of 22 Unit 2 reactor protection system (RPS) matrix relays received from Westinghouse failed bench testing. These relays were being procured to replace the original equipment relays no longer available from Combustion Engineering. Dominion had originally requested 30 relays but only received 22 relays after eight of them failed factory testing. As documented in CR545784, CR548749, and CA281788, Dominion initiated a corrective action to notify the vendor, Westinghouse, of the need to evaluate these failures in accordance with 10 CFR 21. The relays were subsequently shipped to Westinghouse on April 25, 2014 for further evaluation and the vendor was also notified of the need for a Part 21 evaluation. When Dominion followed up with Westinghouse on May 28, 2014 to check on the status of their evaluation, Westinghouse informed them that the relays were sent to a sub-vendor for further evaluation. Dominion attempted to contact Westinghouse again on June 28, 2014 but did not receive any response. During this inspection, on July 31, 2014, the inspectors questioned Dominion on whether an interim report should have been submitted within 60 days of discovery of a defect in accordance with 10 CFR 21.21 (a)(2). The inspectors also questioned Dominion regarding why there was no additional follow up after the June 28, 2014 attempt. Later that same day, Dominion was able to retrieve a Westinghouse supplied evaluation of the relays that had been previously completed on June 14, 2014. This evaluation determined that the failures did not constitute a substantial safety hazard and, therefore, were not to be reportable under 10 CFR 21. The inspectors reviewed the evaluation and had no basis to disagree with the vendor's conclusion. The inspector's noted that this evaluation was not conveyed to Dominion until contact was made at the inspector's behest on July 31, 2014.

The inspectors independently evaluated the deficiencies noted above for significance in accordance with the guidance in IMC 0612, Appendix B, "Issue Screening," and Appendix E, "Examples of Minor Issues." The inspectors noted that: 1) none of the new style RPS matrix relays were ever installed in the plant, 2) Dominion never took possession of the 22 RPS matrix relays because all of them were returned to the vendor after nine of them failed pre-installation testing in the warehouse, and 3) although Dominion was unaware of the evaluation, the vendor had completed the evaluation within the 60 days prescribed in 10 CFR 21.21 (a)(2). Thus, the inspectors determined

this issue was a deficiency of minor significance, and therefore, was not subject to enforcement action in accordance with the NRC's Enforcement Policy. Dominion documented this issue in CR555384.

Multiple Unit 3 'A' Control Building Chiller Delayed Starts

The inspectors identified that Dominion failed to initially categorize numerous condition reports, generated for the delayed start of the Unit 3 'A' Control Building Chiller, as "potential repeat" events as described in procedure PI-AA-200, "Corrective Action." Since September 2013, there have been multiple instances where the 'A' Chiller did not start as expected when the 'B' Chiller was placed in a standby condition. The 'A' Chiller typically failed to start on the first attempt when the 'B' chiller was placed in standby (the normal method for shifting chillers) but would consistently start after a 15 minute timer recycled and repeated the start sequence. After the initial CR (CR525109), three additional CRs (CR526349, CR534558, and CR540488) were generated to document the deficiency with the 'A' Chiller start logic. Each CR described that the deficiency had occurred previously and cited the basis for operability verbatim from the original CR. PI-AA-200 defines a "potential repeat" as "An identified condition (failure, problem or deficiency) that has had a previous occurrence documented within the Corrective Action Program. When determining if a Significance Level 3 event is a Potential Repeat, review events for the previous three years." Contrary to the above, none of those CRs were flagged as a potential repeat issue and they were either closed to a work order (WO) or closed to trend in the case of CR534558.

On March 27, 2014, CR543558 documented another instance of the 'A' Chiller failing to start on the initial start sequence. The CR described the deficiency as a repeat issue and was flagged as a potential repeat event. PI-AA-200, Attachment 5, "Condition Report Screening Matrix" states, "If an event is determined to be a potential repeat...with no previous cause evaluation, then CRT should consider assigning a cause evaluation of a level appropriate to the significance of the failure." CR543558 was closed to another WO and no additional corrective actions were taken which was contrary to this guidance. On June 17, 2014, CR551853 documented the 'A' Chiller again failing to start on the initial start sequence. CR551835 documented another instance of this recurring problem and also noted that past WOs have not resolved the issue. A corrective action was assigned to design engineering to complete a design change to include a replacement of the relay circuit board that contains the chiller's start logic. The inspectors discussed this issue with design engineering and noted that they were scheduled to begin modification activity in September 2014. They have a circuit board on site which needs only minimal modification before replacing the existing circuit board. Based on Dominion's activities to date, it appears likely that this potential repeat issue will be corrected before the end of the year.

The inspectors independently evaluated the deficiencies noted above for significance in accordance with the guidance in IMC 0612, Appendix B, "Issue Screening," and Appendix E, "Examples of Minor Issues." The inspectors noted that 1) the safety related start function is actuated from a different portion of the relay circuit board for the chiller's start logic that remained unaffected by the normal start function problems, 2) although Dominion acknowledged that it was undesirable to rely on a backup start function, there were no instances identified in which the 15 minute recycle timer failed to start the Unit 3 'A' Control Building Chiller after the normal start switch did not work properly, and 3) the purpose of a "potential repeat" event per PI-AA-200 is to allow CRT

to determine if the significance of an underlying issue should be elevated to ensure timely corrective action which was done in the corrective action for CR551853 in this case because it implemented a design change to replace the relay circuit board for the chiller's start logic. The inspectors determined through discussions with the system and design engineering that the design change was underway and should be installed by September 2014. Thus, the inspectors determined this issue was a deficiency of minor significance, and therefore, was not subject to enforcement action in accordance with the NRC's Enforcement Policy. Dominion documented this issue in CR555384.

(3) Effectiveness of Corrective Actions

The inspectors concluded that corrective actions for identified deficiencies were generally timely and adequately implemented. For significant conditions adverse to quality, Dominion identified actions to prevent recurrence. The inspectors concluded that corrective actions to address the sample of NRC non-cited violations and findings since the last problem identification and resolution inspection were timely and effective. The inspectors did observe some weaknesses in Dominion's resolution of degraded conditions.

Circuit Breaker Testing

The inspectors identified circumstances in which Dominion did not consistently implement timely corrective actions to fully address conditions that had been identified in condition reports related to circuit breaker testing. Specifically, the inspectors reviewed the implementation of corrective actions for two breaker testing issues.

In June 2012, CR479475 documented that a replacement breaker for the starter on control room supply fan (3HCV*FN1B) had failed to start the fan when required due to an improper configuration in a newly installed breaker. The inspectors reviewed this CR and determined that Dominion did not adequately specify post maintenance testing (PMT) requirements for this circuit breaker installation. This noncompliance was documented as an NCV in 05000423/2012002-01, Inadequate Post Maintenance Testing of Breakers and CR493172 was initiated to for this NCV. Dominion concluded in Apparent Cause Evaluation (ACE) 019309 that reviewed this condition report there may have been a lack of specificity in the procedure for the post maintenance testing of breakers as described in MP-20-WP-GDL40, "Pre and Post Maintenance Testing Guideline" that contributed to this event. Subsequently, CA285045 assigned a formal self-assessment to design engineering to update this procedure to ensure system operability and functional capabilities were adequately evaluated during PMT activities. The due date for this corrective action was extended to October 2015 and no significant changes have been made to the GDL40 breaker testing procedure which is over three years since the original test failure occurred.

In June 2014, Dominion Maintenance identified in CR551831 that Engineering did not adequately specify the PMT requirements for breaker replacements in PT 21424B, "MP2 Type AK Breakers with EC Trip Devices Test." CR551831 stated that the test criteria in the procedure were difficult to interpret in the field by maintenance technicians because they had to determine breaker trip settings by interpolation of breaker curves. Dominion acknowledged that the interpolation was difficult, but could be done. However, they issued CA285045 to lessen the likelihood of errors while interpreting these breaker

curves. However, this corrective action was subsequently closed to a procedure change request (PCR) which is a process outside of the CAP. The PCR could not be tracked to completion. To date, this procedure change has not been implemented.

For the two issues discussed above, the inspectors independently evaluated the deficiencies noted above for significance in accordance with the guidance in IMC 0612, Appendix B, "Issue Screening," and Appendix E, "Examples of Minor Issues." The inspectors noted that: 1) the NRC documented an NCV for the first issue in 05000423/2012002-01, Inadequate Post Maintenance Testing of Breakers, 2) for this issue, although Dominion acknowledged that the guidance in GDL40 breaker testing procedure could be enhanced, they attributed the actual cause of the NCV to poor work planning, and plan to update the procedure based on its safety significance, and 3) Dominion also considers changes to PT 21424B, "MP2 Type AK Breakers with EC Trip Devices Test," to also be enhancements that will be implemented based on their safety significance. The inspectors noted that although Dominion is following its existing CAP processes and procedures for implementing these procedure changes, the likelihood of errors is increased until these changes are fully implemented. The inspectors determined that the two issues described above constituted deficiencies of minor significance and, therefore, were not subject to enforcement action in accordance with the NRC's Enforcement Policy. Dominion created a procedure change request which is due to be completed by October 28, 2014.

.2 Assessment of the Use of Operating Experience

a. Inspection Scope

The inspectors reviewed a sample of condition reports associated with review of industry operating experience to determine whether Dominion appropriately evaluated the operating experience information for applicability to Millstone Power Station, Units 2 and 3 and had taken appropriate actions, when warranted. The inspectors also reviewed evaluations of operating experience documents associated with a sample of NRC generic communications to ensure that Dominion adequately considered the underlying problems associated with the issues for resolution via their corrective action program. In addition, the inspectors observed various plant activities to determine if the station considered industry operating experience during the performance of routine and infrequently performed activities.

b. Assessment

The inspectors determined that Dominion appropriately considered industry operating experience information for applicability, and used the information for corrective and preventive actions to identify and prevent similar issues when appropriate. The inspectors determined that operating experience was appropriately applied and lessons learned were communicated and incorporated into plant operations and procedures when applicable. The inspectors also observed that industry operating experience was routinely discussed and considered during the conduct of CRT meetings and pre-job briefs.

c. Findings

No findings were identified.

.3 Assessment of Self-Assessments and Audits

a. Inspection Scope

The inspectors reviewed a sample of audits, including the most recent audit of the corrective action program, departmental self-assessments, and assessments performed by independent organizations. Inspectors performed these reviews to determine if Dominion entered problems identified through these assessments into the corrective action program, when appropriate, and whether Dominion initiated corrective actions to address identified deficiencies. The inspectors evaluated the effectiveness of the audits and assessments by comparing audit and assessment results against self-revealing and NRC-identified observations made during the inspection.

b. Assessment

The inspectors concluded that self-assessments, audits, and other internal Dominion assessments were generally critical, thorough, and effective in identifying issues. The inspectors observed that Dominion personnel knowledgeable in the subject completed these audits and self-assessments in a methodical manner. Dominion completed these audits and self-assessments to a sufficient depth to identify issues which were then entered into the corrective action program for evaluation. In general, the station implemented corrective actions associated with the identified issues commensurate with their safety significance.

c. Findings

No findings were identified.

.4 Assessment of Safety Conscious Work Environment

a. Inspection Scope

During interviews with station personnel, the inspectors assessed the safety conscious work environment at Millstone Power Station, Units 2 and 3. Specifically, the inspectors interviewed personnel to determine whether they were hesitant to raise safety concerns to their management and/or the NRC. The inspectors also interviewed the station Employee Concerns Program coordinator to determine what actions are implemented to ensure employees were aware of the program and its availability with regards to raising safety concerns. The inspectors reviewed the Employee Concerns Program files to ensure that Dominion entered issues into the corrective action program when appropriate.

b. Assessment

During interviews, Millstone Power Station, Units 2 and 3 staff expressed a willingness to use the corrective action program to identify plant issues and deficiencies and stated that they were willing to raise safety issues. The inspectors noted that no one interviewed stated that they personally experienced or were aware of a situation in which an individual had been retaliated against for raising a safety issue. All persons interviewed demonstrated an adequate knowledge of the corrective action program and

the Employee Concerns Program. Based on these limited interviews, the inspectors concluded that there was no evidence of an unacceptable safety conscious work environment and no significant challenges to the free flow of information.

c. Findings

No findings were identified.

4OA6 Meetings, Including Exit

On July 31, 2014, the inspectors presented the inspection results to with Stephen Scace, Site Vice President, and other members of the Millstone Power Station, Units 2 and 3 staff. The inspectors verified that no proprietary information was retained by the inspectors or documented in this report.

ATTACHMENT: SUPPLEMENTARY INFORMATION

SUPPLEMENTARY INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

C. Acuna, Unit 2 Shift Manager
A. Bassham, Organizational Effectiveness Manager
H. Beeman, Engineering Supervisor
T. Berger, Unit 3 Shift Manager
D. Delcore, Health Physics Shift Supervisor
K. Deveau, Engineering Specialist, Engineering Coordination
T. Fecteau, Electrical Engineer, I&C
G. Gardner, Consulting Engineer
D. Guarneri, Nuclear Technical Specialist III
S. Hanerfeld, Supervisor Corrective Action Program, Organizational Effectiveness
T. Horner, Supervisor Nuclear Station Procedures
G. Johnson, Employee Concerns Program Coordinator
D. Lowell, Reactor Protection System Engineer
P. Ludington, Unit 3 Control Operator
C. Maxson, Manager Nuclear Engineering
G. McGovern, Nuclear Maintenance Supervisor
R. McGuinness, Nuclear Engineer III
J. Rigatti, Nuclear Site Engineering Manager
D. Rowe, Unit 3 Shift Manager
P. Russell, Unit 3 Shift Manager
M. Sanders, Emergency Preparedness Specialist
L. Salyards, Licensing Specialist
P. Sikorski, Unit 3 Shift Manager
D. Smith, Manager Emergency Preparedness
E. Smith, Electrical and IC Systems Engineer
S. Smith, Nuclear Operations Manager
A. Vomastek, Fleet Employee Concerns Program Manager

Audits and Self-Assessments

Control of Chemicals (SAR002498)
Emergency Preparedness Audit (14-02)
Formal Self-Assessment of Procedure Use and Verification Practices (SAR002223)
Insufficient Work Instruction (Work Order Quality) (SAR002541)
ISI, IST, and Appendix J Audit (13-07)
Maintenance Audit (12-11)
MPS Operation Crews Effectively Using Trending Tools (SAR000402)
MPS Operation Crews Effectively Using Trending Tools (SAR002765)
NRC Pre-Baseline Self-Assessment of Emergency Preparedness (SAR002468)
Radioactive Material Control (SAR002275)
Radiological Protection/Process Control Program/ Chemistry Audit (12-06)
Security Training and HU DLA Reinforcement (SAR002765)
Self-Assessment of the Dominion Environmental Qualification Programs at North Anna, Surry,
and Millstone (SAR002395),
Validation of Progress and Sustainability of the OPs Section of the MEP (SAR002874)

Condition Reports (* indicates that condition report was generated as a result of this inspection)

CR349782	CR498542	CR523582	CR540448	CR548749
CR354906	CR508143	CR525109	CR540693	CR548912
CR364480	CR508785	CR526349	CR540795	CR549517
CR369274	CR511559	CR527739	CR541080	CR549614
CR372504	CR511560	CR529097	CR541415	CR549905
CR373278	CR511856	CR531109	CR541456	CR550765
CR374466	CR512007	CR532453	CR541507	CR550789
CR380975	CR512896	CR533986	CR541601	CR551544
CR381029	CR512905	CR534421	CR541982	CR551831
CR386544	CR515154	CR534558	CR541992	CR551853
CR438054	CR516428	CR534734	CR542278	CR552097
CR438193	CR516432	CR536674	CR542396	CR552213
CR461316	CR516508	CR537067	CR543256	CR552475
CR465654	CR516764	CR537106	CR544149	CR552477
CR474513	CR516799	CR537117	CR545183	CR552843
CR476942	CR517451	CR538720	CR545784	CR552863
CR485044	CR518604	CR538925	CR545893	CR552956
CR485651	CR520476	CR539413	CR547086	CR553102
CR486562	CR520672	CR539463	CR547411	CR553401
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Drawings

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Operating Experience

CR520627, Crane Nuclear Part 21 Notification for Unit 3 Service Water Valves
IN 2013-01, Emergency Action Level Thresholds Outside the Range of Radiation Monitors
Part 21 2012-47-00, Fairbanks Morse Opposed Piston EDG Oil Pump Leak, 9/28/2012
Part 21 2012-48-00, Fairbanks Morse Opposed Piston EDG Oil Pump Leak
Part 21 2013-60-00, Deficiency Related to the Primary Close Latch in K-Line Circuit Breakers,
11/25/2013
Part 21 2014-06-00, Interim Report Regarding TRICENTRIC Triple Offset Butterfly Valves,
2/07/2014
OE35296, D23 EDG Inoperable due to Blown Fuse in Voltage Regulator Motor Operated
Controller (MOC-2) Assembly, 1/15/2012
OE35837, Inadequate Design Change Implementation Processes Result in Appendix R
Shutdown Instructions and Related Training Deficiencies (Browns Ferry Station)
OEE001682, Non-conservative Operator Manual Actions Identified in Appendix R Analysis

Non-Cited Violations and Findings

05000336/2012004-02, Corrective Action to Prevent Recurrence Ineffective to Preclude Repetition of a Significant Condition Adverse to Quality
 05000336/2013002-01, Inadequate Post Maintenance Testing Following PORV Maintenance
 05000336/423/2014403-01, Failure to Monitor UAO
 05000423/2012002-01, Inadequate Post Maintenance Testing of Breakers
 05000423/2012503-01, Failure to Adequately Implement Fuel Clad Barrier EALs
 05000423/2013003-01, Failure to Implement Annunciator Response Procedure for a Loss of Ventilation during a Battery Charge
 05000423/2013003-03, Failure to Make a 10 CFR 50.72(b)(3)(v) Report for a Major Loss of Emergency Assessment Capability for the Stack Radiation Monitor
 05000423/2013004-01, Inadequate Corrective Actions to Restore Degraded Unit 3 Main Feedwater Isolation Valves

Procedures

C EN 104I, Condition Monitoring of Structures, Revision 007-01
 C SP 750, Battery Weekly and Quarterly Surveillance, Revision 002-03
 C SP 750-002, Unit 2 Battery Quarterly Inspection, Revision 001-05
 CP 2802N, Primary Systems Sampling and Analysis, Revision 001-06
 CM-AA-REA-1001, Request for Engineering Assistance, Revision 3
 CM-AA-400, 10 CFR 50.59 and 72.48 Changes Tests and Experiments, Revision 3
 D-NOCP-2012, Internal Audit Program, Revision 9
 DNAP-1801, Internal Auditing and Oversight, Revision 5
 EC-AA-110, Identifying and Addressing Nuclear Safety and Quality Concerns, Revision 0
 ECP-GL-1, Nuclear Employee Concerns Program, Revision 11
 MA-AA-102, Foreign Material Exclusion, Revision 15
 MP-26-EPI-FAP07, Notifications and Communications, Revision 019
 MP-26-EPA-FAP01, Management Program for Maintaining Emergency Preparedness, Rev 012
 OP-AA-102, Operability Determination, Revision 11
 OPS-OP 2346A, "A" Emergency Diesel Generator, Revision 028-5
 PT 21424B, MP2 Type AK Breakers with EC Trip Devices Test, Revision 002-08
 PI-AA-100-1004, Self-Assessments, Revision 11
 PI-AA-100-1007, Operating Experience Program, Revision 11
 PI-AA-200, Corrective Action, Revision 22
 PI-AA-200-2001, Trending, Revision 5
 PI-AA-200-2002, Effectiveness Reviews, Revision 6
 PI-AA-300, Cause Evaluation, Revision 7
 PI-AA-300-3000, Emergent Issue Response, Revision 4
 PI-AA-300-3001, Root Cause Evaluation, Revision 4
 PI-AA-300-3002, Apparent Cause Evaluation, Revision 6
 PI-AA-300-3003, Common Cause Evaluation, Revision 0
 PI-AA-300-3004, Cause Evaluation Methods, Revision 3
 RAC 14, Non-Emergency Station Events, Revision 003-09
 SP 3673.6, Accident Monitoring Instrumentation, Revision 04-07
 SP 3673.6-001, Accident Monitoring Instrumentation, Revision 009-08
 WM-AA-100, Work Management, Revision 24
 WM-AA-101, Work Order Planning, Revision 2

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Miscellaneous

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Basler Electric Instruction Manual for Exciter Diode Monitor for Brushless Exciters, Model EDM 200
DCN MP3-14-01107, "MP3 TDAFW Pump Overspeed Margin Change, Revision 0
DCN MP3-10-01116, Station Blackout Diesel Generator Annunciator Modification, Revision 0
Design Change MP3-14-01101, "3HVK*CHL1A Relay Module Replacement", Revision 000
Email from R. Sturgis to C. Maxson Subj: MP3 TDAFW OD000590 dated July 30, 2014
Equipment/System Reliability Summary dated January 7, 2014 NEI 96-07, Revision 1,
Guidelines for 10 CFR 50.59 Implementation, November 2000
Memorandum from Clark Maxson to CAART, Subj: Request ACE 19696 "SBO Computer Failure – Emergency Shutdown" be downgraded, Dated March 27, 2014
Millstone Power Station Unit 2 Outage Report 2R20
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Millstone Power Station Unit 3 Outage Report 3R14
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MRE016638, Frequent SBO Computer Trouble Alarms in and clear, Dated July 30, 2013
MRE017309, SBO Computer Failure – Emergency Shutdown, March 11, 2013
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MP-REA-861
MP-REA-639 LOE #39, SBO Diesel Annunciator Exciter Diode Failure
Nuclear Oversight – 2R22 Snapshot, May 2, 2014
RMS073C, Radiation Monitoring System, Revision 3 Change 3
Millstone Power Station Employee Concerns Record from 2012 through 2014 (various)

LIST OF ACRONYMS

ACE	Apparent Cause Evaluation
ADAMS	Agency-wide Documents Access and Management System
CA	Corrective Action
CAART	Corrective Action Assignment Review Team
CAP	Corrective Action Program
CFR	Code of Federal Regulations
CR	Condition Report
CRT	Condition Report Review Team
EDG	Emergency Diesel Generator
IMC	Inspection Manual Chapter
NRC	Nuclear Regulatory Commission
PARS	Publicly Available Records System
RCE	Root Cause Evaluation
SDP	Significance Determination Process