#### March 8, 2002

Mr. J. Alan Price, Site Vice President -Millstone % Mr. D. A. Smith, Manager - Licensing Dominion Nuclear Connecticut, Inc. Rope Ferry Road Waterford, Connecticut 06385

SUBJECT: MILLSTONE UNITS 2 AND 3 - NRC INSPECTION REPORTS 50-336/01-14

AND 50-423/01-14

Dear Mr. Price:

On February 9, 2002, the NRC completed inspections at your Millstone Units 2 & 3 reactor facilities. The enclosed reports document the inspection findings which were discussed on March 1, 2002 with Mr. C. Schwarz and members of your staff.

These inspections examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of these inspections, the inspectors identified one Unit 3 issue of very low safety significance (Green). This issue was determined to involve a violation of NRC requirements. However, because of its very low safety significance and because it has been entered into your corrective action program, the NRC is treating this issue as a Non-Cited Violation, in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you deny this Non-Cited Violation, you should provide a response with the basis for your denial, within 30 days of the date of these inspection reports, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region I; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Millstone facility.

Immediately following the terrorist attacks on the World Trade Center and the Pentagon, the NRC issued an advisory recommending that nuclear power plant licensees go to the highest level of security, and all promptly did so. With continued uncertainty about the possibility of additional terrorist activities, the Nation's nuclear power plants remain at the highest level of security and the NRC continues to monitor the situation. This advisory was followed by additional advisories, and although the specific actions are not releasable to the public, they generally include increased patrols, augmented security forces and capabilities, additional security posts, heightened coordination with law enforcement and military authorities, and more limited access of personnel and vehicles to the sites. The NRC has conducted various audits of your response to these advisories and your ability to respond to terrorist attacks with the capabilities of the current design basis threat (DBT). On February 25, 2002, the NRC issued an Order to all nuclear power plant licensees, requiring them to take certain additional interim

compensatory measures to address the generalized high-level threat environment. With the issuance of the Order, we will evaluate Dominion Nuclear Connecticut, Inc.'s compliance with these interim requirements.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm.html (the Public Electronic Reading Room).

Sincerely,

#### /RA/

Curtis J. Cowgill, Chief Projects Branch 6 Division of Reactor Projects

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

#### Enclosures:

(1) NRC Inspection Report 50-336/01-14 Attachment 1: Supplemental Information

(2) NRC Inspection Report 50-423/01-14 Attachment 1: Supplemental Information

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## **ENCLOSURE 1**

# U.S. NUCLEAR REGULATORY COMMISSION REGION I

Docket No.: 50-336

License No.: DPR-65

Report No.: 50-336/01-14

Licensee: Dominion Nuclear Connecticut, Inc.

Facility: Millstone Power Station, Unit 2

Location: P. O. Box 128

Waterford, CT 06385

Dates: December 30, 2001 - February 9, 2002

Inspectors: P. C. Cataldo, Acting Senior Resident Inspector, Unit 2

B. E. Sienel, Acting Senior Resident Inspector, Unit 2

K. M. Jenison, Senior Project Engineer, Division of Reactor Projects

(DRP)

T. A. Moslak, Health Physicist, Division of Reactor Safety (DRS)

Approved by: Curtis J. Cowgill, Chief

Projects Branch 6

Division of Reactor Projects

## SUMMARY OF FINDINGS

IR 05000336-01-14; on 12/30/01-02/09/02; Dominion Nuclear Connecticut, Inc., Millstone Power Station; Unit 2; Resident Inspection.

The inspection was conducted by resident and regional inspectors. No findings of significance were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at <a href="http://www.nrc.gov/NRR/OVERSIGHT/index.html">http://www.nrc.gov/NRR/OVERSIGHT/index.html</a>.

# A. <u>Inspector Identified Findings</u>

No findings of significance were identified.

## B. <u>Licensee Identified Violations</u>

No licensee violations were identified.

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### **Report Details**

## **SUMMARY OF UNIT 2 STATUS**

The plant operated at or near 99 percent power throughout the first half of the inspection period. The plant progressed from 99 percent power into coastdown operations on January 13, 2002, in preparation for a refueling outage. At the conclusion of the inspection period on February 9, the plant was operating at approximately 80 percent power.

## 1. REACTOR SAFETY

(Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity)

## 1R11 <u>Licensed Operator Requalification</u>

## a. <u>Inspection Scope</u>

The inspector observed a simulator session conducted as part of licensed operator requalification training. The inspector observed operator use of emergency and abnormal operating procedures in response to losses of shutdown cooling and AC power. The inspector noted that the scenarios incorporated simulated Unit 3 conditions to add realism and enhance training. The inspector discussed the scenario and training objectives with training personnel and attended the trainees' critique following the scenario.

# b. <u>Findings</u>

No findings of significance were identified.

## 1R12 Maintenance Rule Implementation

## a. <u>Inspection Scope</u>

The inspector reviewed licensee actions taken in response to the following condition reports (CRs) with respect to the maintenance rule.

•	CR-01-11731	Mode 4 Risk Analysis Support for the Maintenance Rule
•	CR-02-00873	Emergency Diesel Generator Day Tank Volume
•	CR-02-02330	Blackout Diesel in Manual

For each CR identified, the inspector reviewed the applicable system's maintenance rule scoping document, applicable quarterly system health report, corrective actions taken in response to the equipment problem, and maintenance rule functional failure determination. The inspector confirmed that the licensee appropriately tracked the occurrences against the systems' performance criteria, both for functional failures and unavailability time.

## b. Findings

No findings of significance were identified.

# 1R14 Personnel Performance During Non-routine Plant Evolutions

## Reactor Plant End of Cycle Coastdown Operations

## a. Inspection Scope

The inspector reviewed the infrequently performed coastdown operating procedure OP 2216, "End of Cycle Operation (Coastdown)." The inspector also performed the following:

- · Observed various coastdown operations;
- Verified control room operator training was provided for coastdown operations;
- Verified that the procedure adequately addressed control room operator responses to reactor plant trips should they occur during coastdown; and
- Verified significant reactor plant parameters and overall integrated plant responses were consistent with expected trends detailed in the procedure.

## b. <u>Findings</u>

No findings of significance were identified.

## 1R15 Operability Evaluations

## a. <u>Inspection Scope</u>

The inspector evaluated the adequacy of operability determination (OD) MP2-001-02, which the licensee initiated following its decision to operate with a secondary side steam pressure of less than 800 psig. The inspector reviewed the OD to determine the acceptability of the licensee's conclusion that the turbine driven auxiliary feedwater (TDAFW) pump was operable at the lower steam pressure. The inspector reviewed the adequacy of the licensee's immediate corrective actions which included an examination of the TDAFW pump performance curve and the generation of a Technical Specifications (TS) interpretation. Both the examination of the pump performance curve and the TS interpretation were documented in the licensee's corrective action program in CR-02-00718.

## b. <u>Findings</u>

No findings of significance were identified.

#### 1R19 Post Maintenance Testing

## a. <u>Inspection Scope</u>

The inspector reviewed the completed documentation for post-maintenance testing (PMT) performed under the following automated work orders (AWOs).

- M2-01-15151 Overhaul "B" Emergency Diesel Generator (EDG)
- M2-01-13836 Overhaul "B" EDG Valve 2-DG-112B

•	M2-01-06125	Replace Starting Air Solenoid Valve Filter
	M2-01-05601	Replace "B" EDG Thermostat Elements
•	M2-00-15679	Replace Fuel Oil System Relief Valve 2-FO-72
•	M2-01-08749	Repair Service Water (SW) Inlet Valve to the "B" EDG
•	M2-01-11817	Calibrate "B" EDG Relays
•	M2-00-12999	Clean and Inspect "B" EDG SW Heat Exchangers (HX)
•	M2-00-10307	Calibrate "B" EDG Woodward Governor
•	M2-01-03981	Upgrade "B" EDG Bearing Temperature Indication
•	M2-00-14288	Inspect and Replace "B" EDG J Tube Lines
•	M2-01-10872	Repair "B" EDG Slip Ring

The inspector reviewed the scope of the work activities and verified that the PMTs were appropriate to restore the operability of the associated systems.

## b. Findings

No findings of significance were identified.

## 1R20 Refueling and Outage Activities

## a. <u>Inspection Scope</u>

The inspector reviewed the following areas related to the 2R14 refueling outage for conformance to TS requirements and approved procedures. Selected activities were verified for each evolution.

- Receipt and inspection of the new fuel assemblies, including implementation of special nuclear material accountability and double verification controls
- Shutdown risk evaluations and implementation of recommendations

#### a. Findings

No findings of significance were identified.

## 1R22 Surveillance Testing

## .1 <u>Turbine-Driven Auxiliary Feedwater (TDAFW) Pump Surveillances</u>

## a. <u>Inspection Scope</u>

The inspector observed operability testing of the TDAFW pump and inservice testing (IST) of the TDAFW pump's trip throttle valve, 2-MS-464, conducted on February 6, 2002. The inspector also reviewed the test results documented in OPS Form 2610B-001, "TDAFW Operability Test and 2-MS-464 (SV-4188) Stroke and Timing IST." The inspector verified that test results for the operability surveillance were in accordance with the TS and surveillance procedure acceptance criteria, and that performance of the test adequately demonstrated equipment operability and the capability of the TDAFW pump to perform its intended safety function.

## b. <u>Findings</u>

No findings of significance were identified.

## .2 Emergency Diesel Generator Surveillances

#### a. Inspection Scope

The inspector reviewed licensee performance related to the following surveillance tests.

- SP 2660 Auxiliary Feedwater Pump Turbine Periodic Testing
- SP 26613L Diesel Generator Slow Start Operability Test
- SP 2346B Diesel Fuel System
- EN 21228 Thermal Performance Test for the "B" EDG HX
- SP 2661 Emergency Diesel Overspeed Trip Test

Portions of the pre-job briefing and conduct of the EDG testing were observed in the control room to confirm performance of the tests in accordance with approved procedures. The completed data sheets were reviewed for all tests to verify the equipment met procedural acceptance criteria and was operable, consistent with TS requirements.

## b. <u>Findings</u>

No findings of significance were identified.

# 2. RADIATION SAFETY Occupational Radiation Safety [OS]

## 2OS1 Access Control to Radiologically Significant Areas

#### a. Inspection Scope

During the period January 28 - 31, 2002, the inspector conducted the following activities to verify that the licensee was properly implementing physical and administrative controls for access to locked high radiation areas, and other radiologically controlled areas, and that workers were adhering to these controls when working in these areas. Implementation of these controls was reviewed against the criteria contained in 10CFR20, applicable industry standards, and the licensee's procedures.

Independent radiation surveys were performed in the radiologically controlled areas in Unit 2 and Unit 3 to confirm the accuracy of posted survey results, and assess the adequacy of radiation work permits, associated controls, and area postings. Keys to Technical Specification Locked High Radiation Areas (TSLHRA) were inventoried for both units and these areas were verified to be properly secured and posted during plant tours.

The inspector attended the pre-job briefings, and reviewed the work order packages and associated Radiation Work Permits (RWPs) for the following jobs performed during the inspection period.

Unit 2 Helium leak testing of a thermal barrier heat exchanger on a spare reactor coolant pump stored in a TSLHRA (RWP No.7)
Unit 2 Radiography examinations of turbine components (RWP No. 25)
Unit 3 Transfer of high activity spent clean-up resins (RWP No. 20)
Unit 3 Adjustment of a reed switch on valve SOV-67, located in the Boronometer room (RWP No. 30)

For these tasks, the inspector observed selected aspects of the work activities, and interviewed workers on their knowledge of the relevant RWP, electronic dosimetry set points, and job site radiological conditions.

The inspector reviewed selected CRs relating to the control of personnel exposure and work activities in radiologically controlled areas to evaluate the licensee's threshold for identifying problems regarding implementation of the radiation protection program, and the promptness and effectiveness of the resulting corrective actions. Additionally, the CRs were reviewed against the criteria contained in 10 CFR 20, Technical Specifications, and site procedures to determine the regulatory significance of the identified problem. Included in this review were CRs CR-02-00812, CR-02-00516, -02-00441, -02-00168, -02-00042, -01-12127, -01-12010, -01-11800, -01-11685, and -01-11652.

In evaluating the effectiveness of the licensee's radiation protection program, the inspector attended daily Health Physics Department meetings and a Unit 2 outage planning meeting, reviewed shift (Health Physics) logs, and reviewed the exposure control plan for conducting reactor head penetration inspections during the Unit 2 refueling outage.

#### b. Findings

No findings of significance were identified.

## 4. OTHER ACTIVITIES [OA]

## 4OA1 Performance Indicator Verification

## .1 Occupational Exposure Control Effectiveness

#### a. Inspection Scope

The inspector reviewed implementation of the licensee's Occupational Exposure Control Effectiveness Performance Indicator (PI) Program. Specifically, the inspector reviewed condition reports, and associated documents, for occurrences involving locked high radiation areas, very high radiation areas, and unplanned personnel exposures since the last inspection against the criteria specified in Nuclear Energy Institute (NEI) 99-02, Regulatory Assessment Performance Indicator Guideline, Revision 1, to verify that all occurrences that met the NEI criteria were identified and reported in the PI.

## b. Findings

No findings of significance were identified.

## .2 Barrier Integrity

#### a. Inspection Scope

The purpose of this inspection was to confirm the information presented in the following licensee December 2001 PIs was complete and accurate.

- Reactor Coolant System (RCS) Activity
- Reactor Coolant System Leakage

To verify the RCS activity PI, the inspector reviewed the results of daily reactor coolant system dose equivalent lodine-131 measurements, as logged in the licensee's chemistry data management system. To verify the RCS leakage PI, the inspector reviewed the results of daily reactor coolant system identified leakage measurements. The inspector reviewed the data for the period of October 2000 through December 2001. This time frame was selected as the last confirmation of these PIs was performed for data through September 2000.

Reported plant information for the PIs was compared against the industry guidance provided by NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 1.

## a. Findings

No findings of significance were identified.

# 4OA6 Meetings, including Exit

# .1 <u>Exit Meeting Summary</u>

The inspectors presented the inspection results to Mr. C. Schwarz and other members of licensee management at the conclusion of the inspection. The licensee acknowledged the findings presented.

The inspectors asked the licensee whether any material examined during this inspection should be considered proprietary. No proprietary information was identified.

## **ATTACHMENT 1**

## **SUPPLEMENTAL INFORMATION**

# a. <u>List of Items Opened, Closed and Discussed</u>

None

# b. Partial List of Documents Reviewed

RPM 1.1.1	Health Physics Organization and Responsibilities of Key
	Radiological Personnel
RPM 1.3.8	Criteria for Dosimetry Issue
RPM 1.3.14	Personnel Dose Calculations and Assessments
RPM 1.4.1	ALARA Reviews and Reports
RPM 1.4.2	ALARA Engineering Controls
RPM 1.5.1	Routine Survey Frequency
RPM 1.5.2	High Radiation Area Key Control
RPM 1.5.5	Guidelines for Performance of Radiological Surveys
RPM 1.5.6	Survey Documentation and Disposition
RPM 2.1.1	Issuance and Control of RWPs
RPM 2.1.2	ALARA Interface with the RWP Process
RPM 5.2.2	Basic Radiation Worker Responsibilities
RPM 5.2.3	ALARA Program and Policy
RPM 5.2.6	Guidelines for Radiological Controls of Radiography

Oversight Audit Report (MP-01-A17) - Radiation Protection Program Quality Assurance Report (MP-02-NO-GDL103) - Radiological Protection Unit 2 Reactor Head Penetration Inspection Exposure Plan

# c. <u>List of Acronyms Used</u>

TS

ALARA	as low as reasonably achievable
AWOs	automated work orders
CRs	condition reports
EDG	emergency diesel generator
HX	heat exchangers
IST	inservice testing
NEI	Nuclear Energy Institute
OD	operability determination
OP	operating procedure
PI	performance indicator
PMT	post-maintenance testing
RCS	reactor coolant system
RWPs	radiation work permits
SW	service water
TDAFW	turbine-driven auxiliary feedwater

technical specification

TSLHRA technical specification locked high radiation areas

## **ENCLOSURE 2**

# U.S. NUCLEAR REGULATORY COMMISSION REGION I

Docket No.: 50-423

License No.: NPF-49

Report No.: 50-423/01-14

Licensee: Dominion Nuclear Connecticut, Inc.

Facility: Millstone Power Station, Unit 3

Location: P. O. Box 128

Waterford, CT 06385

Dates: December 30, 2001 - February 9, 2002

Inspectors: A. C. Cerne, Senior Resident Inspector, Unit 3

B. E. Sienel, Resident Inspector, Unit 3

T. A. Moslak, Health Physicist, Division of Reactor Safety (DRS)

Approved by: Curtis J. Cowgill, Chief

Projects Branch 6

Division of Reactor Projects

## SUMMARY OF FINDINGS

IR 05000423-01-14; on 12/30/01-02/09/02; Dominion Nuclear Connecticut, Inc., Millstone Power Station; Unit 3. Maintenance Rule Implementation.

The inspection was conducted by resident and regional inspectors. The inspection identified one green issue, which was a Non-Cited Violation. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at http://www.nrc.gov/NRR/OVERSIGHT/index.html.

## A. <u>Inspector Identified Findings</u>

**Cornerstone: Mitigating Systems** 

**Green.** The inspector determined that following the conduct of testing activities (i.e., SP 3646A.2) that discharged the "B" EDG breaker closing springs, no documented requirement existed to verify that the springs were recharged. This resulted in a delay in the discovery of "B" EDG system inoperability and therefore, also in an extended period of time for the subject EDG unavailability. While the total unavailability time period (approximately 37 hours) was within the TS allowed outage time (AOT) for one inoperable EDG, the inspector identified that TS 3.8.1.1, action b. requires certain verification activities of redundant electrical power supply availability within 1hour, 8 hour, and 24 hour time periods. These actions were not performed, as required in the times allotted, because of the noted delays associated with the discovery of the inoperable "B" EDG condition. This is considered a violation of TS 3.8.1.1.

The inspector evaluated this condition using the NRC Significance Determination Process and concluded that the condition was of very low significance (Green) because the plant TS provided for an AOT of 72 hours, because the AC electrical offsite sources and redundant onsite sources remained operable during the period of "B" EDG unavailability, and because no plant work was done to compromise the Unit 3 risk configuration during the time that the EDG inoperability was not recognized. As a result of the licensee's review activities and corrective actions developed with respect to CR-01-12394, this violation is being treated as a Non-Cited Violation (NCV 50-423/01-14-01) consistent with Section VI.A of the NRC Enforcement Policy, NUREG-1600. (Section 1R12)

## B. Licensee Identified Violations

No licensee violations were identified.

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2.	RADIATION SAFETY
4.	OTHER ACTIVITIES [OA]
SUPPL	List of Items Opened, Closed and Discussed

### **Report Details**

## **SUMMARY OF UNIT 3 STATUS**

The plant operated at approximately 100 percent power throughout the inspection period.

#### 1. REACTOR SAFETY

(Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity)

## 1R05 Fire Protection

## d. Inspection Scope

The inspector performed walkdowns of two areas (Zones A and B of Fire Area AB-1) at elevation 4'-6" in the Auxiliary Building. The inspector verified that the fire detection and suppression equipment located in these zones was as specified in the Millstone Unit 3 Fire Protection Evaluation Report (FPER). The inspector also checked all the fire protection water (FPW) hose stations and spot-checked some FPW valve alignments to confirm the plant configuration matched the design details delineated in the applicable piping and instrumentation diagram, EM-146C-17.

During the walkdowns, the inspector examined equipment (e.g., emergency lighting units, fire extinguishers) for evidence of degraded or inoperable conditions and assessed the transient combustible materials stored in the Fire Area. Discussions regarding equipment maintenance, storage controls, and the fire brigade response capability were held with the cognizant station managers, and licensee corrective actions (e.g., CR-02-01214) to address any applicable fire protection issues were evaluated. With respect to equipment availability, the inspector also reviewed the Unit 3 Technical Requirements Manual (TRM) to determine if the fire protection system configuration and component conditions observed during the field walkdowns were consistent with the system requirements delineated in the TRM.

## e. <u>Findings</u>

No findings of significance were identified.

## 1R11 Licensed Operator Requalification

## a. <u>Inspection Scope</u>

The inspector observed a simulator session conducted as part of licensed operator requalification training. The inspector observed operator use of emergency and abnormal operating procedures in response to a loss of coolant accident outside of containment. Use of emergency preparedness personnel during the session was noted. The inspector discussed the scenario with training personnel and attended the trainees' critique following the scenario.

## b. Findings

No findings of significance were identified.

## 1R12 Maintenance Rule Implementation

#### a. Inspection Scope

The inspector reviewed the licensee's corrective actions and maintenance activities for an emergent work item, documented in condition report (CR) 01-12394, associated with the inoperability of the "B" emergency diesel generator (EDG). The inoperable condition of the "B" EDG related to the discovery that the output breaker closing springs had not charged subsequent to the conduct of a monthly surveillance run. Upon discovery, immediate corrective measures were taken to restore the EDG to an "available" status by recharging the closing springs. Subsequently, the subject 4.16 KV breaker was replaced and full "B" EDG system operability was restored. While onsite component analysis pointed to a problem with a contact switch in the DC circuit for the breaker's charging pump motor, the entire breaker assembly was shipped to the vendor for further testing and analysis.

The inspector reviewed the operator logs, examined the condition and status of the replacement EDG breaker, and interviewed operations and engineering personnel regarding the evaluations and corrective actions implemented for this event. The inspector also confirmed proper entry into Technical Specification (TS) action statements for an inoperable EDG and verified that the correct time interval for EDG unavailability was tracked for maintenance rule accountability. It was noted that the surveillance procedure (SP 3646A.2) used for monthly load testing of the EDGs does not specify a final restoration check for charged EDG closing springs, but that plant equipment operators (PEOs) routinely check this attribute for all the breakers on their shiftly rounds. In fact, the inoperable breaker had been identified by a PEO on rounds the day after the completion of the "B" EDG surveillance test.

However, because over a day had elapsed from the time the EDG surveillance activity was accepted as satisfactory until the discovery of the breaker inoperability, the inspector further questioned the rigor of either the requirements for PEO rounds or the EDG post-test restoration provisions. The inspector confirmed that the licensee corrective action activities for CR-01-12394 appear to be focused upon addressing this concern.

### b. Findings

The inspector determined that following the conduct of testing activities (i.e., SP 3646A.2) that discharged the "B" EDG breaker closing springs, no documented requirement existed to verify that the springs were recharged. This resulted in a delay in the discovery of "B" EDG system inoperability and therefore, also in an extended period of time for the subject EDG unavailability. While the total unavailability time period (approximately 37 hours) was within the TS allowed outage time (AOT) for one inoperable EDG, the inspector identified that TS 3.8.1.1, action b. requires certain verification activities of redundant electrical power supply availability within 1hour,

8 hour, and 24 hour time periods. These actions were not performed, as required in the times allotted, because of the noted delays associated with the discovery of the inoperable "B" EDG condition. This is considered a violation of TS 3.8.1.1.

The inspector evaluated this condition using the NRC Significance Determination Process and concluded that the condition was of very low significance (Green) because the plant TS provided for an AOT of 72 hours, because the AC electrical offsite sources and redundant onsite sources remained operable during the period of "B" EDG unavailability, and because no plant work was done to compromise the Unit 3 risk configuration during the time that the EDG inoperability was not recognized. As a result of the licensee's review activities and corrective actions developed with respect to CR-01-12394, this violation is being treated as a Non-Cited Violation (NCV 50-423/01-14-01) consistent with Section VI.A of the NRC Enforcement Policy, NUREG-1600.

## 1R13 Maintenance Risk Assessments and Emergent Work Evaluation

## a. Inspection Scope

The inspector reviewed the work planning and corrective maintenance activities for three emergent work items documented in the following CRs:

• CR-02-00157	Leak found in the service water piping providing cooling flow to the ventilation equipment in the engineered safety features building
• CR-02-00721	Degrading conditions in the air driven hydraulic pump associated with the containment isolation valve for the "D" feedwater loop
• CR-02-00879	results in hydraulic fluid in the air supply Electro-hydraulic (EHC) fluid found in one accumulator associated with the main turbine valve control and trip system

For each issue, the inspector assessed the impact of the identified component problems on the affected system functionality. For the service water piping leak, the inspector discussed the repair plans with the cognizant maintenance and engineering personnel. The inspector also confirmed that the appropriate TSs were entered and that repairs were completed within the allowed outage times.

For the hydraulic pump leak on the feedwater isolation valve, the inspector noted that a hydraulic pump replacement was planned in parallel with other work on this valve, which required the containment isolation valve to be blocked open. The inspector observed the pre-job briefing involving maintenance and operations personnel, noting cognizance of the applicability of TS 3.6.3 for restoration of the valve to an operable status within four hours or a plant shutdown would be initiated. The scope of the work was evaluated for adequacy, as controlled by Automated Work Order (AWO) M3-01-10797, to include a verification of the proper application of quality assurance hold points. Subsequent to the completion of the repairs, which were implemented within the four hour time frame, the inspector examined the subject feedwater valve, 3FWS\*CTV41D, checking the new component installation details and overall field condition of the valve and its environs.

With regard to EHC fluid leak in one (3TMB-TK3F) of the six accumulators associated with the main turbine valves, the inspector reviewed Technical Evaluation M3-EV-0004, which discussed the failed accumulator impact upon continued plant operation and weekly turbine valve testing activities. It was noted that the licensee concluded, with vendor concurrence, that restoration and operation of the EHC system with five functional accumulators were acceptable and would result in no transient conditions. The inspector reviewed the TRM provision (Section 3.4) relating to the EHC system operability and testing of the Turbine Overspeed Protection System. The inspector also verified that subsequent turbine valve testing was conducted without evidence of any plant or equipment problems.

## b. Findings

No findings of significance were identified.

#### 1R15 Operability Evaluations

#### a. Inspection Scope

The inspector reviewed operability determination (OD) MP3-045-01, which had been placed in a closed status. The inspector verified that the OD closure was appropriately conditioned upon an approved change to the affected TS (3/4.6.3) bases, which differentiated the requirements for containment isolation valve (CIV) operability from those for the valve position indication operability.

During this inspection period, the inspector noted the issuance of CR-02-00760, documenting operational entry into TS 3.6.3 for failure of a reactor plant sample CIV, 3SSR\*CTV19C, to demonstrate full closure during the conduct of a surveillance test for the biennial valve position indication verification. Through operator interviews and reviews of both the operator logs and surveillance test results, the inspector determined how and when the valve was subsequently declared operable. The surveillance test procedure (SP 3611A.1) governing both the SSR valve stroke time testing, as well as the valve remote position indication verification, was reviewed to establish that the proper sequence of surveillance test activities was performed, in consideration of the position indication problem documented in CR-02-00760. The inspector discussed the surveillance conduct and sequence of test activities with the unit operations supervisor; and confirmed, in accordance with the OD and the stroke time test results, that the licensee corrective actions had acceptably restored valve 3SSR\*CTV19C to an operable status.

#### b. Findings

No findings of significance were identified.

#### 1R19 Post Maintenance Testing

### a. Inspection Scope

The inspector reviewed selected activities associated with the conduct of the following post maintenance testing (PMT) surveillances:

SP 3626.4 Service Water Pump 3SWP\*P1A Operational Readiness Test
 SP 3630D.2 Charging Pump Cooling Pump Operational Readiness Test - Train B

The inspector conducted field inspections of both the Train A service water (SWP) pump and the Train B charging pump cooling (CCE) pump after completion of their respective maintenance activities and performance of the surveillance tests required to restore system operability. Since both the SWP and CCE systems have redundant pumps, available to provide system/train cooling flow, the inspector examined not only the operating flow path components, but also the condition of the standby equipment, the cross-connected system configuration, and any supporting equipment status to ensure the proper component alignments. The data collected during the surveillance activities were checked with respect to PMT acceptance criteria.

With regard to the CCE pump performance, the inspector further evaluated the flow data relative to a Westinghouse Electric Company calculation set (CN-SEE-01-91) used to establish the operability of a charging pump, given a loss of heat transfer from the CCE system (reference: CR-01-06186 and CR-01-06971). Licensee engineering personnel were interviewed regarding configuration questions on both the operating and the standby CCE pumps. Also, based upon previous problems identified (e.g., CR-01-10031) with the post maintenance alignment of the CCE pump/motor assembly, the inspector evaluated the licensee corrective measures to address potential vibration concerns and any related design issues.

## b. <u>Findings</u>

No findings of significance were identified.

## 1R22 Surveillance Testing

## a. Inspection Scope

The inspector reviewed licensee performance related to the following surveillance tests:

•	SP 31447VA	Trip Actuating Device Operational Test for 4KV Bus 34C Undervoltage
•	SP 3626.3	Service Water Valve Operability Tests
•	SP 3626.6	Service Water Pump 3SWP*P1C Operational Readiness Test

For all three surveillance tests and related activities, the inspector observed the pre-job briefs and witnessed the testing in the control room to confirm performance of the tests in accordance with approved procedures. The inspector discussed various portions of the surveillance tests with both the licensed operators and the condition-based maintenance personnel performing the test, as applicable to the different procedural tasks, to verify their knowledge of the purpose of the test and consequences of the steps they performed. The completed data sheets were reviewed to verify that the

equipment met procedural acceptance criteria and was operable, consistent with TS requirements.

## b. Findings

No findings of significance were identified.

## 1R23 Temporary Plant Modifications

## a. <u>Inspection Scope</u>

The inspector reviewed Temporary Modification (TM) 3-01-032, which provided justification for the removal of a lit annunciator on the Unit 3 main control board; i.e., panel MB4B, window 2-2A. The inspector discussed the alarmed condition (i.e., high level in one reactor coolant pump standpipe) with the cognizant system engineer. Online repair of the leaking non-safety-related valve that caused the high level was determined to not be practical. The inspector confirmed that the valve repair was scheduled for implementation during the next Unit 3 refueling outage.

The inspector examined the 10 CFR 50.59 screen form associated with the TM and discussed with operations management the perception that the lit annunciator constituted a "nuisance" alarm, since the operators on shift had no operational response to or corrective measures for the identified condition. The inspector also verified that the TM provided an adequate assessment of the complementary alarms and procedural provisions that justified removal of the lit annunciator. Given that operators would be alerted to abnormal reactor coolant pump seal leakage by alarms that remained functional, no concerns with regard to either the Unit 3 design basis or TS compliance were identified. In accordance with the Millstone Station procedural requirements (WC 10) for "Temporary Modifications", the inspector confirmed that TM 3-01-032 was reviewed and approved by the Site Operations Review Committee.

## b. Findings

No findings of significance were identified.

#### 2. RADIATION SAFETY

## Occupational Radiation Safety [OS]

## 2OS1 Access Control to Radiologically Significant Areas

Refer to NRC Inspection Report 50-336/01-14, Section 2OS1 for specific details.

## 4. OTHER ACTIVITIES [OA]

## 4OA1 Performance Indicator Verification

## .1 Occupational Exposure Control Effectiveness

Refer to NRC Inspection Report 50-336/01-14, Section 4OA1.1 for specific details.

# .2 Safety System Functional Failures

## a. <u>Inspection Scope</u>

The purpose of this inspection was to confirm the information presented in the licensee's December 2001 Safety System Functional Failures performance indicator (PI) was complete and accurate. The inspector reviewed licensee event reports submitted between January 1 and December 31, 2001. This time frame was selected as the last confirmation of this PI was performed for data through December 31, 2000. The data was compared against the criteria contained in Nuclear Energy Institute (NEI) 99-02, Revision 1, to verify that all conditions meeting the outlined criteria were reported.

## b. Findings

No findings of significance were identified.

## 4OA6 Meetings, including Exit

## .1 <u>Exit Meeting Summary</u>

The inspectors presented the inspection results to Mr. C. Schwarz and other members of licensee management at the conclusion of the inspection. The licensee acknowledged the findings presented.

The inspectors asked the licensee whether any material examined during this inspection should be considered proprietary. No proprietary information was identified.

#### **ATTACHMENT 1**

#### SUPPLEMENTAL INFORMATION

## a. List of Items Opened, Closed and Discussed

## Opened and Closed

50-423/01-14-01 NCV Delay in the discovery of discharged breaker

closing springs for the "B" EDG resulted in an extended period of EDG inoperability and a

violation of TS 3.8.1.1. (1R12)

## b. List of Acronyms Used

AOT allowed outage time
AWO automated work order
CCE charging pump cooling
CIV containment isolation valve

CR condition report EHC electro-hydraulic

EDG emergency diesel generator

FPER Fire Protection Evaluation Report

FPW fire protection water
NEI Nuclear Energy Institute
OD operability determination
PEOs plant equipment operators
PI performance indicator
PMT post maintenance testing
SP surveillance procedure

SWP service water

TM temporary modification

TRM Technical Requirements Manual

TS technical specification