STATE OF CONNECTICUT

THE NUCLEAR ENERGY ADVISORY COUNCIL REPORT

2009

Established Pursuant to Public Act 96-245

John W. Sheehan, Chairperson
Pearl Rathbun, Vice Chairperson

December 10, 2009

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CHARGE TO THE COUNCIL

Section 17 of Public Act 96-245 created the Nuclear Energy Advisory Council (NEAC) and requires it to:

1. Hold regular public meetings to discuss issues relating to the safety and operations of nuclear power plants and to advise the governor, legislature, and municipalities within a five-mile radius of the plants on these issues;

2. Work with federal, state, and local agencies and the companies operating such plants to ensure public health and safety;

3. Discuss proposed changes in, or problems arising from, the operation of the plants;

4. Communicate, through reports and presentations, with the plants' operators about safety or operational concerns at the plants, and

5. Review the current status of the plants with the Nuclear Regulatory Commission.

COUNCIL MEMBERS

The Council consisted of twelve (12) members appointed by the Governor, legislative leadership, and the executive bodies in the towns in or near which the state's nuclear power plants are located (Appendix 1).

EXECUTIVE SUMMARY

This is the fourteenth annual report presented by the Nuclear Energy Advisory Council (NEAC). During calendar year (CY) 2009, the NEAC met four times and received reports from representatives of the Nuclear Regulatory Commission (NRC), a representative of the Council of State Eastern Regional Conference's Northeast High-Level Radioactive Waste Transportation Project, and Dominion Nuclear Connecticut. Routine NRC Millstone Power Station inspection and performance assessment reports were also received and reviewed. During the fourth quarter of 2008, Millstone Units 2 and 3 plant performance (Action Matrix) was classified as "GREEN", meaning that all inspection findings for CY 2008 were classified as having no or low safety significance, In the first quarter of 2009 there was one finding of very low safety significance and both Millstone 2 and Millstone 3 remained in the GREEN classification. During the second quarter, there was one NRC- finding of very low safety significance. In the third quarter there were two licensee revealed findings of very low safety significance. Results for the fourth quarter were not available at the time of this report. Because of the "GREEN" status, only routine baseline inspections plus an independent spent fuel storage installation inspection and a power uprate inspection were scheduled by the NRC of Millstone 2 and 3 in CY 2009. Included in those baseline inspections were the NRC Special Inspection in response to the discovery of an air void in the 24 inch diameter pipe connecting the refueling water storage tank to the suction of the emergency core cooling system (ECCS) pumps, NRC Physical Security Baseline Inspection, a NRC Component Design Bases Inspection, a NRC Safety Inspection of Millstone Unit 1, and a NRC Inspection of Licensing Examinations. There was one GREEN finding identified as a noncited violation (NCV) for the Special Inspection of the ECCS system, one GREEN finding in the Physical Security Baseline Inspection, four NRC-identified GREEN findings of very low safety significance for the Design Bases Inspection, no violations for the Unit 1 Safety Inspection, and no findings of significance during the Licensing Examination Inspection. The NRC also issued a non-cited violation to Millstone Power Station because a contract security officer failed to complete a required security surveillance and deliberately falsified the written completion of the required security surveillance in a security log.

Scheduled decommissioning activities of the industrial areas at Connecticut Yankee Atomic Power Company (CYAPC) are complete. The Connecticut Yankee Site with the exception of the Spent Fuel Dry Cask Storage Area was released for unrestricted use on November 26, 2007. Final decommissioning and license termination of the entire site will be completed after removal of spent nuclear fuel and greater than Class C radioactive waste that is in dry cast storage.

COUNCIL ACTIVITIES IN 2009

MEETINGS:

As required by PA 96-245, the NEAC held four public meetings as follows: (1) April 23, 2009, (2) July 22, 2009, (3) October 29, 2009 and (4) December 10, 2009 at Waterford Town Hall, Waterford Connecticut. The purpose of these meetings was to provide a venue for discussion of issues relating to the safe operation of the state's nuclear power plants. Meeting minutes are included in Appendix 2. A summary of the meetings follows:

April 23, 2009: This was a joint meeting with the NRC Region I and focused on the Annual Assessment Report of Millstone Power Station Units 2 and 3 for the four quarters of CY2008. It was reported that overall these two units were operated in a manner that preserved public health and safety and fully met NRC cornerstone objectives. Accordingly, the NRC planned to conduct only baseline inspections at the facility through September 30, 2009.

July 22, 2009: This meeting was conducted at Waterford Town Hall in Waterford, Connecticut. It followed a tour of the Millstone Power Station. Information received from Dominion personnel during the tour was discussed and Dominion Nuclear Connecticut representatives provided a station update. Recent inspection results correspondence received from the NRC was also discussed.

October 29, 2009: This meeting was held at the Waterford Town Hall in Waterford, Connecticut. A briefing on the status of Yucca Mountain and other Spent Nuclear Fuel Issues was provided by a representative of the Council of State Governments Eastern Regional Conference's Northeast High-Level Radioactive Waste Transportation Project. Recent inspection results correspondence received from the NRC was also discussed.

December 10, 2009: This meeting was held at the Waterford Town Hall. The CY2009 Annual Report was discussed, reviewed, and approved for promulgation. NRC Correspondence and Inspection Results received since the last meeting were discussed. The meeting schedule for CY2010 was approved and possible topics for the meetings were discussed.

Millstone 1 Decommissioning Advisory Committee (M1DAC): Since Millstone 1 remains in Safe Storage (SAFSTORE) and no significant activities were conducted at the Unit during the past calendar year, M1DAC did not meet in CY2009. M1DAC committee membership is included in Appendix 3.

REPORT ON ISSUES

MILLSTONE OPERATIONS

As reported by the Nuclear Regulatory Commission (NRC) in regular inspection reports and at a Joint Public Meeting (Appendix 2), Millstone Units 2 and 3 have continued to be operated in a manner that preserves public health and safety. No findings of significance were documented on routine baseline inspections conducted through September 30, 2009. Routine inspections conducted between October 1, 2008 and September 30, 2009 resulted

in the identification of one Site issue, two Unit 2 issues, and one Unit 3 issue, all of very low safety significance (GREEN). An additional NRC Inspection was completed on December 5, 2008 that examined activities relating to Fire Protection. Two NRC-identified violations, which were determined to be of very low safety significance, were listed in the January 14, 2009 report of the inspection. On February 6, 2009 the NRC completed a special inspection in response to the discovery of an air void in the 24-inch diameter emergency core cooling system (ECCS) piping of Millstone 3. One finding of very low safety significance (Green) was cited in the March 23, 2009 report.. In February 2009 the NRC also completed a security baseline inspection. Although the exact findings are not reported due to security concerns, one finding of very low safety significance that was immediately corrected was reported in March 2009 when the cover letter of the inspection report was released. In February 6, 2009 the NRC also completed a Component Design Bases Inspection. Four NRC findings which were of very low safety significance were reported in the March 31, 2009 report. No findings of significance were found during the February 24, 2009 license exam investigation reported out on May 18, 2009. There was a special investigation regarding a May 8, 2008 failure of a security guard to make appointed rounds that was reported in a September 10, 2009 letter with one NCV requiring no reports back. NRC had not released the results of the fourth quarter 2009 inspections at the close out time of this report.

DECOMMISSIONING

MILLSTONE 1

In July of 1998, it was announced that Millstone Unit 1 would undergo decommissioning. A modified Safe Storage (SAFSTOR) decommissioning option was selected and remains in effect. This involved some decontamination and dismantlement early in the process. After these initial activities completed, the unit was then placed in safe storage until the other two units at the Millstone site undergo decommissioning. After reviewing Unit 1 requirements, in conjunction with the operational and outage requirements of Millstone Units 2 and 3, it was strategically decided to place Unit 1 in 'Cold and Dark' storage in April 2001. This allowed the safe and efficient separation (from Units 2 and 3) projects as well as the decommissioning projects. All separation projects were completed by April 1, 2001.

A safety Inspection of Millstone Unit 1 was conducted between March 9-11, 2009 . No findings or violations were reported in the April 7, 2009 letter reporting the results of this inspection.

CONNECTICUT YANKEE

Approximately 5 acres remain under the NRC license for fuel storage activities at the Independent Spent Fuel Storage Installation (ISFSI). An administration building located near the ISFSI supports long-term fuel storage operations.

The ISFSI site has had no lost time accidents. Staffing levels at the ISFSI are stable.

No indications of plant activity have been seen in the offsite monitoring wells at the Haddam Meadows State Park or in DEP samples of neighboring wells from residents living along the Connecticut River near the former plant site. Low levels of tritium and strontium-90 are detected in groundwater in some of the monitoring wells at the former plant area and are trending down. The levels are well below the EPA drinking water standard for tritium and strontium-90 except one monitoring well located down gradient of the former spent fuel pool area.

The DEP issued a Stewardship Permit in October 2007 certifying that site remediation for soil was complete with all areas meeting the Connecticut Remediation Standard Regulations. The permit will continue in place until the long-term groundwater monitoring program is completed and all monitoring well samples meet the EPA and Connecticut Remediation Standard Regulations criteria for groundwater.

DEP oversight continues with periodic site inspections and briefings on the groundwater monitoring program sample results. Two NRC inspections were completed in 2009 with no issues identified. One was a Security inspection, the other an Operations inspection.

CY continues to retain Vita Nuova to complete a confidential Expression of Interest process to determine who might be interested in acquiring the site. Expressions of interest were received from several organizations. CY is in dialog with those organizations as well as the Connecticut Yankee Land Conservation Project and there is no timetable for completing the process.

The Connecticut Yankee Fuel Storage Advisory Committee held two meetings this year on April 28, 2009 and on October 24, 2009. The committee plans to meet in the spring of 2010. The FSAC has decided to hold an annual meeting only, with the ability to call a special meeting if the need arises. The next meeting will be held at the CY ISFSI.

HIGH LEVEL NUCLEAR WASTE

- NEAC continued to monitor activity to establish a permanent solution for spent nuclear fuel rods disposal. In view of the fact that there are now two nuclear plants currently decommissioned in Connecticut, failure to establish a permanent repository or otherwise dispose of the high level waste could adversely affect the State's economy and homeland security. It is noted that temporary storage of spent fuel in dry cask storage containers has been implemented at both Millstone and Connecticut Yankee.

The U.S. Department of Energy's latest program for Yucca Mountain from the DOE web site is:

- *License Application submitted to U. S. Nuclear Regulatory Commission (NRC) on June 3, 2008*

The current administration has indicated that it will zero the budget for licensing and, according to some sources, the Energy Department will seek $46.2 million to close out the project in FY2011.

The recent briefing of NEAC by the Northeast High-Level Radioactive Waste Transportation Project Director also showed the difficulties with recycling spent nuclear fuel.

NEAC will continue to monitor the progress toward a solution to the problem of High Level Nuclear Waste.

RECOMMENDATIONS

STATE

1. Department of Environmental Protection should continue to address any emergency preparedness issues at Connecticut's nuclear sites.
2. Department of Environmental Protection should continue to address any security issues at Connecticut's nuclear sites.
3. The Governor, General Assembly, Department of Environmental Protection, and NEAC should continue to insist that the NRC continue vigilant oversight of Connecticut Yankee and Millstone Power Station sites for as long as high-level nuclear waste remains on site.

NEAC

1. Continue to monitor the stability of the Employee Concern Program and Safety Conscious Work Environment and Corrective Action Program at Millstone Power Station.
2. Continue to monitor operations and activities at Millstone Power Station and Connecticut Yankee Site, including the dry cask storage programs.
3. Continue to encourage the development of a solution to the problem of High Level Waste and Greater Than Class C Low-Level Radioactive Waste and the safe transfer of this nuclear waste from Connecticut.

NUCLEAR ENERGY ADVISORY COUNCIL MEMBERSHIP

John W. (Bill) Sheehan (**Chair)** Waterford: MBA, Rensselaer Polytechnic. Consultant, former Captain, Nuclear powered submarine.

Pearl Rathbun (Vice Chair) Niantic: BA Economics. Eastern Connecticut State University. Director of Emergency Management, East Lyme.

Gerald D. Hicks Waterford: BS Mechanical Engineering University of Colorado. MS Operations Research/Systems Analysis US Naval Postgraduate School. Retired Navy Captain, former Commanding Officer, Nuclear Powered Submarine, represents Dominion Nuclear Connecticut.

Marjorie W. DeBold Haddam: BA Psychology and Child Development, UC Berkeley. Retired teacher, former First Selectman of Haddam.

Gregg W. Dixon Niantic: PhD Mechanical Engineering (Nuclear) Stanford University. Retired Professor, Mechanical Engineering, US Coast Guard Academy.

Thomas A. Nebel Niantic: BS Industrial Engineering New York Polytechnic University; Retired Monsanto/Solutia – Former First Responder and NE HAZMAT Coordinator for company; CERT Member Missouri & Connecticut.

Robert J. Klancko Woodbridge: BSE Chemical Engineering, UCONN. PE, CSP,Engineering Consultant, member State Emergency Response Commission.

John Markowicz Waterford: BS Engineering, US Naval Academy. Economic development director, former chief engineer nuclear powered submarine.

Rep. Kevin Ryan Oakdale: OD, Pennsylvania College of Optometry. Legislator, Adjunct Faculty, University of New Haven.

James Sherrard Mystic: PhD Nuc. & Mech Eng. MIT/UCONN. Chairman, Nuclear Engineering Technology Department, TRCTC.

Edward L. Wilds, Jr. Griswold: PhD Physics, UCONN. Director, Radiation Division, Department of Environmental Protection.

NUCLEAR ENERGY ADVISORY COUNCIL
7:00 PM
April 23, 2009
WATERFORD TOWN HALL AUDITORIUM
WATERFORD, CT
SPECIAL MEETING
MINUTES

Members Present

Mr. Bill Sheehan, Chair
Mr. Denny Hicks
Ms. Marge DeBold
Rep. Kevin Ryan
Dr. Gregg Dixon
Mr. Tom Nebel
Dr. Edward Wilds, representing DEP, Commissioner Gina McCarthy

1. Call to Order of Meeting Co-Chaired by NEAC and NRC Region 1

NEAC Chair Sheehan called the meeting to order at 7:00 PM at Waterford Town Hall Auditorium in Waterford, Connecticut.

2. Introduction of NEAC Members Present and NRC Staff

a. NEAC Member Present see above
b. NRC Staff
   i. Ron Bellamy, Chief, Projects Branch 6, Region 1
   ii. Steve W. Shaffer, Millstone Senior Resident Inspector
   iii. James A. Krafty, Millstone Resident Inspector
   iv. Brian Haagensen, Millstone Resident Inspector
   v. Carleen Sanders, Project Manager, NRR, NRC HQ

3. NRC Presentation

a. 7:05 PM NRC provided presentation on Millstone Station Performance for 2008 Reactor Oversight Process/Millstone End of Cycle Report. All NRC Staff present participated in presentation.
b. NEAC question period. NEAC comments/questions and NRC response given below:
   i. NEAC requested additional information on Green - Inadequate maintenance procedures result in Unusual Event being declared at Unit 2 because of reactor coolant system leakage exceeding technical specification limits.
   ii. NEAC asked if NRC had an issue with Millstone not committing to implement NFPA 805 at this time.
   NRC responded that they did not have an issue with this. NFPA 805 implementation is in a pilot study at this time at 2 reactor sites. They indicated that Dominion's Kewanee plant was participating in the pilot

study and Dominion was probably ahead of the curve in understanding the issues with implementation of NFPA 805.

iii. NEAC asked the NRC if they had any additional information related to Spent Nuclear Fuel Storage since this was a continuing topic on the National level.
NRC responded that they do not know how Congress will handle this issue.

c. No members of the public had any questions for the NRC after the presentation.

d. Meeting recessed at 7:25 PM

4. NEAC Business Meeting

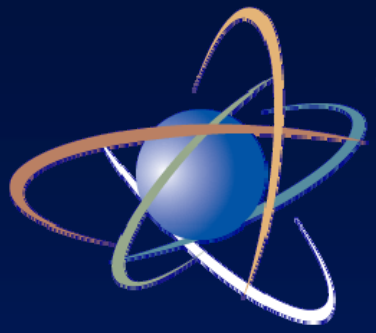
At 7:31 PM the Chair called the meeting to order to continue NEAC business.

a. Correspondence received by Chairman Sheehan were reviewed. See attached.

b. Next meeting is July 23, 2009 – Tour of Millstone Power Station with Dominion Update.

5. Adjournment

Motion was made and seconded to adjourn; no objections; unanimous vote in favor; meeting adjourned at 7:35 PM.



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UNITED STATES NUCLEAR REGULATORY COMMISSION

Protecting People and the Environment

NRC & NEAC Meeting Concerning Millstone Annual Assessment

2008 Reactor Oversight Process

Nuclear Regulatory Commission – Region I

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Purpose of Today's Meeting

- Discuss Millstone performance for 2008
- NRC will address Millstone's performance as discussed in NRC's Annual Assessment Letter to Dominion Nuclear Connecticut, Inc.
- NEAC will be given the opportunity to respond to the information, request clarifications, and ask additional questions, as needed

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Agenda

- Introduction
- NRC Organization and Performance Goals
- Reactor Oversight Process (ROP)
- National Summary of Plant Performance
- Millstone Plant Performance Assessment
- NEAC Response and Remarks
- NRC and NEAC Closing Remarks
- Break
- NRC available to address public questions

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Region I Organization

Samuel J. Collins
Regional Administrator

Marc L. Dapas
Deputy Regional Administrator

Division of Reactor Safety

Darrell J. Roberts, Director
Peter Wilson, Deputy Director

Division of Reactor Projects

David C. Lew, Director
James W. Clifford, Deputy Director

Division of Nuclear Materials Safety

John D. Kinneman, Director
Daniel S. Collins, Deputy Director

Regional Specialists

Ronald Bellamy
Branch 6 Chief

Regional Specialists

Millstone Resident Inspection Staff

Steve Shaffer, Senior Resident Inspector
James Krafty, Resident Inspector
Brian Haagensen, Resident Inspector

Project Engineers

Scott Barber, Senior Project Engineer
Christopher Newport, Project Engineer

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NRC Strategic Plan Goals

- **Safety**: Ensure adequate protection of public health and safety and the environment

- **Security**: Ensure adequate protection in the secure use and management of radioactive materials

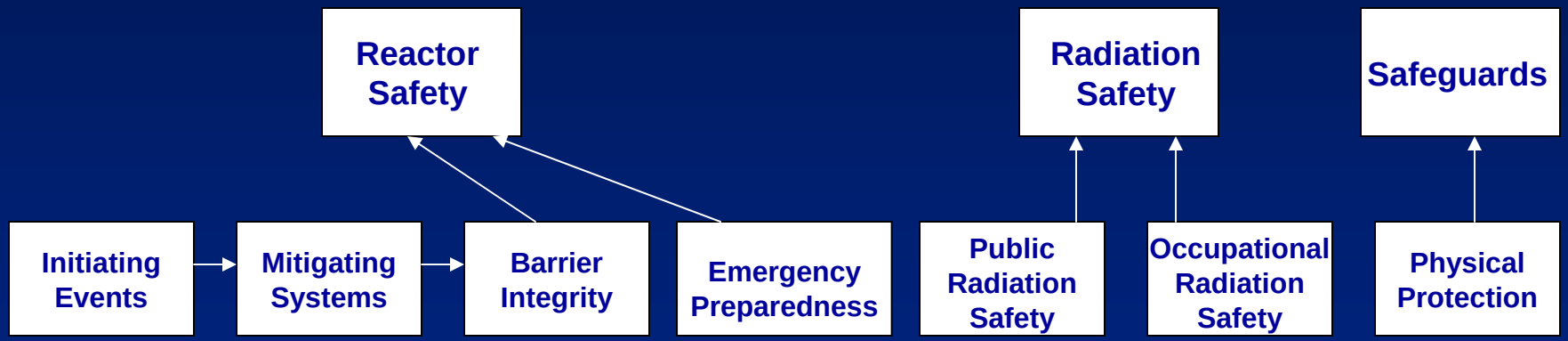
NRC Regulatory Functions

What We Regulate

- Nuclear Reactors
  - Commercial power, research, test, and new reactor designs
- Nuclear Material
  - Reactor fuel, radioactive material for medical, industrial, and academic uses
- Nuclear Waste
  - Transportation, storage, disposal, and facility decommissioning
- Nuclear Security
  - Facility physical security

Reactor Oversight Process

3 Strategic Areas & 7 Cornerstones



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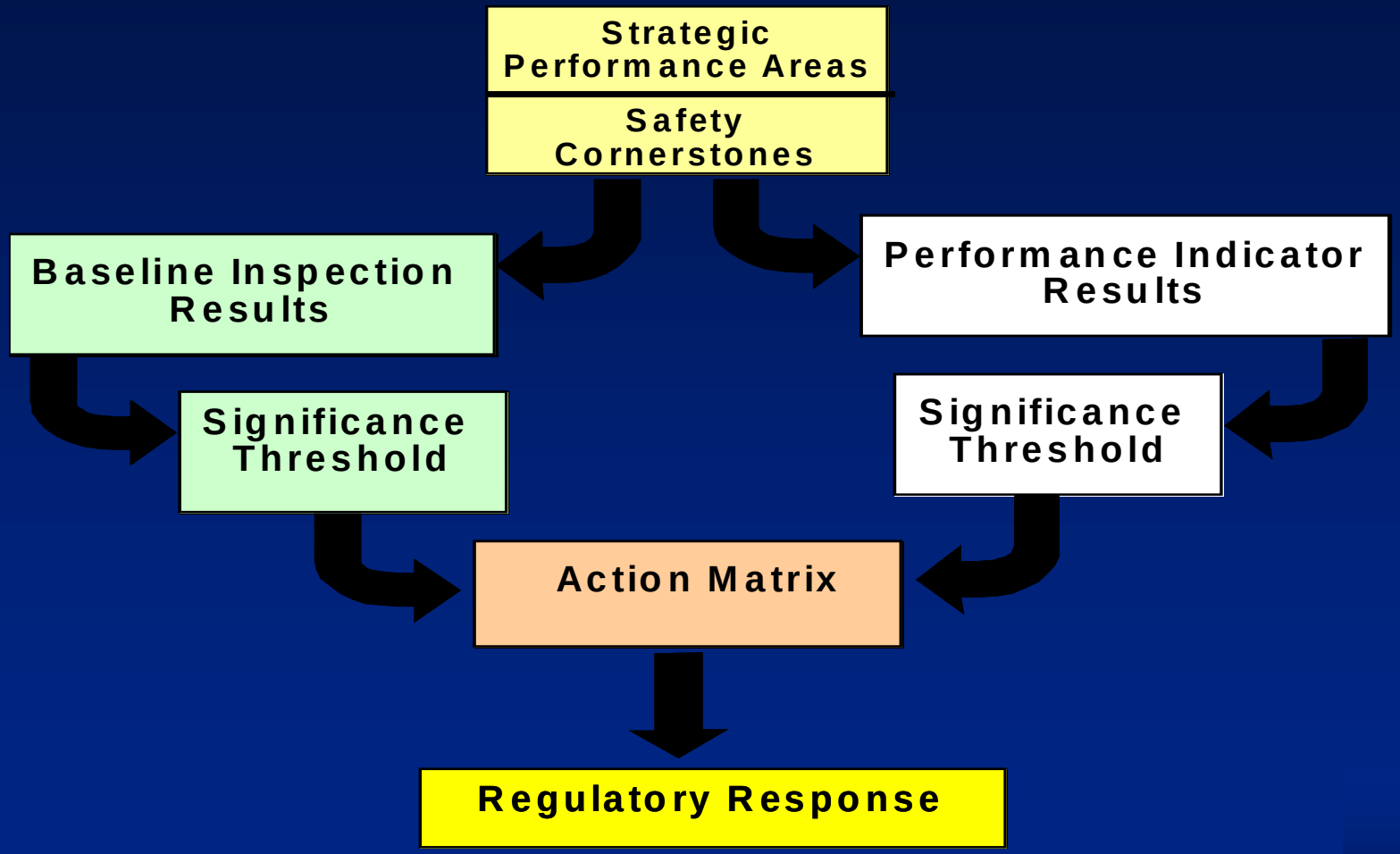
Reactor Oversight Process



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Baseline Inspection Areas

- Maintenance Effectiveness
- Operability Evaluations
- Post-Maintenance Testing
- Refueling & Outage Activities
- Surveillance Testing
- Emergency Preparedness Assessment

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Baseline Inspection Areas

- Occupational Radiation Safety
- Public Radiation Safety
- Performance Indicator Verification
- Fire Protection
- Identification & Resolution of Problems
- Follow-up of Events

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NRC Performance Indicators

- **Initiating Events PIs**
- **Mitigating Systems PIs**
- **Barrier Integrity PIs**
- **Emergency Planning PIs**
- **Radiation Protection PIs**
- **Security PIs are not Publicly Available**

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Significance Threshold

Performance Indicators

- **Green** — Baseline Inspection
- **White** — Requires additional NRC oversight
- **Yellow** — Requires more NRC oversight
- **Red** — Requires most NRC oversight

Inspection Findings

- **Green** — Very low safety issue
- **White** — Low to moderate safety issue
- **Yellow** — Substantial safety issue
- **Red** — High safety issue

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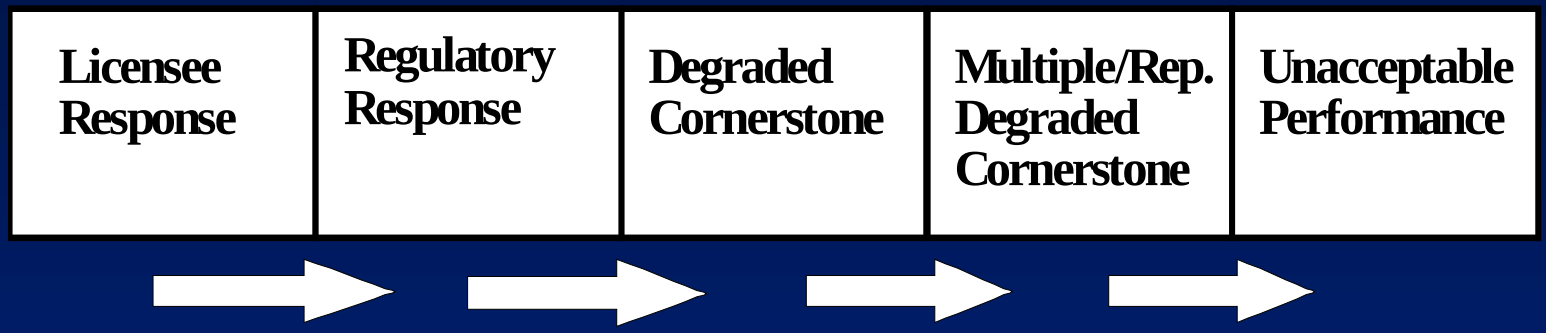
Action Matrix Concept



- Increasing Safety Significance
- Increasing NRC Inspection Efforts
- Increasing NRC/Licensee Management Involvement
- Increasing Regulatory Actions

National Summary of Plant Performance
(at end of 2008)

Licensee Response	86
Regulatory Response	14
Degraded Cornerstone	3
Multiple/Repetitive Degraded Cornerstone	1
Unacceptable	0
Total	104

National Summary of Plant Performance

(at end of 2008)

Performance Indicator Results

- Green 1762
- White 6
- Yellow 0
- Red 0

Total Inspection Findings

- Green 776
- White 17
- Yellow 0
- Red 0

NRC Inspection Activities at Millstone (for 2008)

- 7845 hours of inspection and related activities
- 3 resident inspectors on-site
- 19 regional inspections
- 4 major team inspections:
  - Emergency Preparedness Exercise
  - U3 Air Void SIT
  - Problem Identification & Resolution
  - Triennial Fire Protection

Millstone PIs / Findings
(January 1 – December 31, 2008)

- All Green Performance Indicators
- 14 Green / Severity Level - IV inspection findings

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NRC Inspection Findings Millstone

- Green - Inadequate maintenance procedures result in Unusual Event being declared at Unit 2 because of reactor coolant system leakage exceeding technical specification limits.
- Green – Installation of the incorrect internal valve trim package in valve 2-HD-103A resulted in a Unit 2 reactor trip.
- Green – Failure to correct safety valve lifting following uncomplicated reactor trips from full power at Unit 2.

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NRC Annual Assessment Summary Millstone

- **Dominion operated the plant safely and in a manner that preserved public health and safety and protected the environment**

- **Millstone was in the Licensee Response column of the NRC's Action Matrix for the last quarter of 2008**

NRC Annual Assessment Summary Millstone

- NRC plans baseline inspections at Millstone for the remainder of 2009

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NEAC Response and Remarks

Millstone Nuclear Power Station
Units 2 & Unit 3

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Contacting the NRC

- **Report a safety concern:**
  - **(800) 695-7403**
  - **Allegation@nrc.gov**
- **General information or questions:**
  - **www.nrc.gov**
  - **Public Affairs Officers:**
    - **Diane Screnci 610-337-5330**
    - **Neil Sheehan 610-337-5331**

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NRC Representatives

- David C. Lew, Division Director, DRP
  - 610-337-5229
- James W. Clifford, Deputy Division Director, DRP
  - 610-337-5080
- Ronald Bellamy, Branch Chief
  - 610-337-5200
- Steve Shaffer, Senior Resident Inspector
  - 816-447-3170
- James Krafty, Resident Inspector
  - 816-447-3170
- Brian Haagensen, Resident Inspector
  - 816-447-3170
- Scott Barber, Senior Project Engineer
  - 610-337-5232

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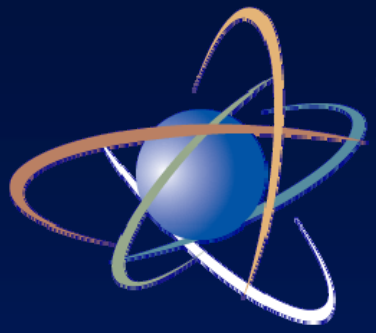
Reference Sources

- **Reactor Oversight Process**
- **http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/index.html**

- **Public Electronic Reading Room**
  http://www.nrc.gov/reading-rm.html

- **Public Document Room**
  1-800-397-4209 (Toll Free)



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End of the Presentation

Nuclear Regulatory Commission

Region I

King of Prussia, Pennsylvania

April 23, 2009

MN No. 09-016

U.S. NUCLEAR REGULATORY COMMISSION
REGION I
NOTICE OF PUBLIC MEETING

April 15, 2009

Licensee:	Dominion Nuclear Connecticut, Inc.
Facility:	Millstone Power Station
Docket No.	50-336 and 50-423
Date and Time:	April 23, 2009 at 7:00 p.m.
Location:	Waterford Town Hall 15 Rope Ferry Road Waterford, CT 06385

Purpose: To discuss NRC's assessment of the safety performance of the Millstone Power Station for calendar year 2008 with the Nuclear Energy Advisory Council (NEAC).

Attendees:

NRC:
R. Bellamy, Chief, Projects Branch 6, Region I
S. Shaffer, Senior Resident Inspector
B. Haagensen, Resident Inspector
J. Krafty, Resident Inspector
C. Sanders, Project Manager, NRR

NEAC :
W. Sheehan, Chairman
P. Rathbun, Vice-Chairman
And other members of NEAC

Public Participation*: This is a Category 1 Meeting. The public is invited to observe the Meeting. After the business portion, but before the meeting adjourns, the public will have an opportunity to communicate with the NRC regarding Dominion's performance at Millstone and the role of the agency in ensuring safe plant operations.

The NRC's Annual Assessment letter for the Millstone Power Station can be located in ADAMS with Accession Number ML090630229. This meeting notice with the enclosed agenda can be located in ADAMS with Accession Number ML091050660. The NRC slides for the meeting can be located in ADAMS with Accession Number ML091050623. ADAMS is accessible from the NRC Web Site at http://www.nrc.gov/reading-rm/adams.html.

Additional information relative to the NRC's Annual Assessment process and the safety performance of the Millstone Power Station can be found on the NRC's web site at: http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/index.html. The NRC's Policy Statement, "Enhancing Public Participation in NRC Meetings," effective May 28, 2002, applies to this meeting. The policy statement may be found on the NRC Web site, http://www.nrc.gov/reading-rm/doc-collections/commission/policy/67fr36920.html and contains information regarding visitors and security.

Meeting Contact: Ronald R. Bellamy, Ph.D., Chief, Projects Branch 6
(610) 337-5200
E-mail: Ronald.Bellamy@nrc.gov

Handicapped persons requiring assistance to attend the meeting shall make their requests known to the NRC meeting contact no later than two business days prior to the meeting. Attendance by NRC personnel at this meeting should be made known by April 20, 2009, via telephone to the NRC meeting contact.

Approved by: Ronald R. Bellamy
Ronald R. Bellamy, Ph.D., Chief
Projects Branch 6
Division of Reactor Projects

cc w/encl:
J. Price, Vice President, Engineering, Dominion Fleet
A. Jordan, Site Vice President, Millstone Station
C. Funderburk, Director, Nuclear Licensing and Operations Support
L. Morris, Plant Manager, Millstone Station
W. Barton, Supervisor, Station Licensing
J. Spence, Manager Nuclear Training
L. Cuoco, Senior Counsel
C. Brinkman, Manager, Washington Nuclear Operations
J. Roy, Director of Operations, Massachusetts Municipal Wholesale Electric Company
First Selectmen, Town of Waterford
B. Sheehan, Chair, NEAC
P. Rathbun, Vice-Chair, NEAC
E. Wilds, Jr., Ph.D, Director, State of Connecticut SLO Designee
J. Buckingham, Department of Public Utility Control
C. Meek-Gallagher, Commissioner, Suffolk County, Department of Environment and Energy
V. Minei, P.E., Director, Suffolk County Health Department, Division of Environmental Quality
R. Shadis, New England Coalition Staff
S. Comley, We The People
D. Katz, Citizens Awareness Network (CAN)
R. Bassilakis, Citizens Awareness Network (CAN)
P. Eddy, Electric Division, Department of Public Service, State of New York
F. Murray, President and CEO, New York State Energy Research and Development Authority
A. Peterson, SLO Designee, New York State Energy Research and Development Authority
N. Burton, Esq.
R. Rubinstein, Waterford Library

Agenda

NRC & NEAC Meeting Concerning

Millstone Power Station Performance

Millstone Power Station

April 23, 2009
7:00 – 9:00 p.m.

Introduction	NRC (3 minutes)
Review of Reactor Oversight Process	NRC (5 minutes)
National Summary of Plant Performance	NRC (7 minutes)
Discussion of Millstone Station Performance	NRC (15 minutes)
NEAC's Response and Questions	NEAC (20 minutes)
Closing Remarks	NRC (5 minutes)
Short Break	(5 minutes)
NRC to address public questions	NRC/Members of the Public (as needed)

NUCLEAR ENERGY ADVISORY COUNCIL
7:00 PM
April 23, 2009
WATERFORD TOWN HALL AUDITORIUM
WATERFORD, CT
SPECIAL MEETING
AGENDA

AT 3:00 PM A MEETING BETWEEN THE NUCLEAR REGULATORY COMMISSION AND DOMINION NUCLEAR CONNECTICUT, INC. WILL BE HELD AT THE WATERFORD TOWN HALL. MEMBERS OF THE NUCLEAR ENERGY ADVISORY COUNCIL AND THE PUBLIC ARE INVITED TO ATTEND AND OBSERVE THIS MEETING

1. Call to order of Meeting Co-chaired by NEAC and NRC Region 1.
2. NRC Reactor Oversight Program/Millstone End of Cycle Report:
    a. NRC presentation. – R. Bellamy, Chief Projects Branch 6, Region I
    b. NEAC question period.
    c. Closing remarks. - NRC
    d. Meeting break
    e. Public question period.- NRC
4. NEAC Business Meeting:
    a. NRC Correspondence of note received since last meeting
    b. Future Meeting topics and dates
5. Adjournment

Possible NEAC Meeting Topics

Joint NRC/NEAC Meeting
Brief by NRC on new reactor plant approval process
Tour of Millstone Power Station followed by Dominion Update Brief
Update on Dominion Operator Training Requirements
Update on Employee Concerns and Safety Conscious Work Environment
Spent Fuel Storage and Recycling Procedures Update
Annual Report Preparation

2009 Meeting Schedule
Thursday April 16, 2009 – NRC 2008 Performance Evaluation
Thursday July 23, 2009 – Tour of Millstone Power Station/Dominion Update
Thursday October 22, 2009 – Briefing of Latest in Spent Fuel Storage and Recycling
Thursday December 10, 2009 – Annual Report Preparation

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

December 17, 2008

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

SUBJECT: MILLSTONE POWER STATION - SECURITY INSPECTION
05000336/2008201, 05000423/2008201

Dear Mr. Christian:

On March 28, 2008, the U.S. Nuclear Regulatory Commission (NRC) completed a security baseline inspection at the Millstone Power Station. The inspection covered one or more of the key attributes of the security cornerstone of the NRC's Reactor Oversight Process. The enclosed inspection report documents the inspection results, which were discussed on March 27, 2008, with Mr. Jeffery Campbell, Manager Nuclear Protection Services, and other members of your staff.

The inspection examined activities conducted under your license as they relate to security 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. No findings of significance were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter 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 Website at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room). However, because of the security-related concerns contained in the enclosure, and in accordance with 10 CFR 2.390, a copy of this letter's enclosure will not be available for public inspection.

Enclosure contains **Safeguards Information**. Upon removal, this letter is decontrolled.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

January 28, 2009

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

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

Dear Mr. Christian:

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

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

Based on the results of this inspection, no findings of significance were identified.

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

Sincerely,

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

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

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

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

January 14, 2009

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

SUBJECT: MILLSTONE POWER STATION, UNIT 2 - NRC TRIENNIAL FIRE PROTECTION INSPECTION REPORT 05000336/2008008

Dear Mr. Christian:

On December 5, 2008, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Millstone Power Station, Unit 2. The enclosed inspection report documents the inspection results, which were discussed on December 5, 2008, with Mr. Skip Jordan and other members of your staff.

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

Based on the results of this inspection, the NRC identified two findings of very low safety significance (Green) that were violations of NRC requirements. However, because of their very low safety significance and because they are entered into your corrective action program, the NRC is treating these findings as a non-cited violations (NCVs) consistent with Section VI.A.1 of the NRC Enforcement Policy. If you contest any NCV in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, 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 Power Station.

In accordance with Title 10 of the Code of Federal Regulations Part 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of the NRC's document system (ADAMS).

ADAMS is accessible from the NRC Web Site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

John F. Rogge, Chief
Engineering Branch 3
Division of Reactor Safety

Docket No. 50-336
License No. DPR-65

Enclosure: Inspection Report No. 05000336/2008008
w/Attachment: Supplemental Information

SUMMARY OF FINDINGS

IR 05000336/2008008; 11/17/2008 - 12/05/2008; Dominion Nuclear Connecticut, Inc.; Millstone Power Station, Unit 2; Triennial Fire Protection Team Inspection, Fire Protection.

This report covered a two-week triennial fire protection team inspection by specialist inspectors. Two Green NCVs were identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Rev. 4, dated December 2006.

A. NRC-Identified and Self-Revealing Findings

Cornerstone: Mitigating Systems

Green. The team identified that Dominion failed to administratively control and ensure the availability of all necessary fire safe shutdown equipment to perform manual actions in the 4kV upper switchgear room. This finding was determined to be of very low safety significance (Green) and a NCV of the Millstone Nuclear Power Station, Unit 2 Operating License condition 2.C.(3); Fire Protection.

The team determined that this finding was more than minor because it was associated with the external factors attribute (fire) of the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e. core damage). Specifically, Dominion did not ensure that an electrical flash jacket necessary to perform local breaker operations was available in the upper 4kV switchgear room. Actions to restore the A diesel generator would have been delayed for a fire in the lower 4kV switchgear room. The team assessed this finding in accordance with NRC IMC 0609, Appendix F, Fire Protection Significance Determination Process. This finding affected post-fire safe shutdown systems. This finding screened to very low safety significance (Green) in Phase 1 of the SDP because it was assigned a low degradation rating. A low degradation rating was assigned because additional electrical flash jackets were onsite and the local breaker operations would likely have been performed within 3 hours. The safe shutdown analysis most restrictive timeline for a fire in the lower switchgear room required a charging pump restored within 3 hours for reactor coolant system makeup. Local breaker operations in the upper 4kV switchgear room would be needed to support ac power to a charging pump. The team determined that this finding had a cross cutting aspect in the area of human performance because personnel did not return an electrical flash jacket to its proper storage location even though it was clearly labeled for the upper 4kV switchgear room. (H.4(b)) (Section 1R05.01)

Green. The team identified that Dominion failed to ensure that a post-fire manual action to restore auxiliary feedwater (AFW) flow to a steam generator (SG) would be performed within 30 minutes of a plant trip consistent with the Millstone Unit 2 fire safe shutdown analysis. This finding was determined to be of very low safety significance (Green) and a

NCV of the Millstone Nuclear Power Station, Unit 2 Operating License condition 2.C.(3), Fire Protection.

The team determined that this finding was more than minor because it was associated with the external factors attribute (fire) of the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e. core damage). Specifically, a timely manual action to restore AFW to SG 1 within 30 minutes of the plant trip for a fire in Fire Area R-2 was not ensured for all circumstances and was validated by Dominion in 1999 to take at least 40 minutes. This finding was similar to more than minor example 3.i in NRC Inspection Manual Chapter (IMC) 0612, Power Reactor Inspection Reports, Appendix E, Examples of Minor Issues. The team assessed this finding in accordance with NRC IMC 0609, Appendix F, Fire Protection Significance Determination Process. This finding affected post-fire safe shutdown systems. This finding screened to very low safety significance (Green) in Phase 1 of the SDP because it was assigned a low degradation rating. A low degradation rating was assigned because Dominion performed a sensitivity analysis of S-02824-S2, Millstone Unit 2, R-2 Fire, Appendix R Analysis, Rev. 2, and determined that restoring AFW flow to steam generator 1 could be delayed for 50 minutes and result in acceptable plant performance during a safe shutdown event. (Section 1R05.01)

B. Licensee-Identified Violations

None.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

March 4, 2009

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

SUBJECT: ANNUAL ASSESSMENT LETTER – MILLSTONE POWER STATION
(REPORTS 05000336/2009001 and 05000423/2009001)

Dear Mr. Christian:

On February 11, 2009, the NRC staff completed its performance review of the Millstone Power Station (Millstone). Our technical staff reviewed performance indicators (PIs) for the most recent quarter and inspection results for the period from January 1 through December 31, 2008. The purpose of this letter is to inform you of our assessment of your safety performance during this period and our plans for future inspections at your facility.

This performance review and enclosed inspection plan do not include security information. A separate letter designated and marked as "Official Use Only – Security Related Information" will include the security cornerstone review and resultant inspection plan.

Overall, Millstone Units 2 and 3 operated in a manner that preserved public health and safety and fully met all cornerstone objectives. Plant performance for the most recent quarter, as well as for the first three quarters of the assessment cycle, was within the Licensee Response column of the NRC's Action Matrix, based on all inspection findings being classified as having very low safety significance (Green) and all PIs indicating performance at a level requiring no additional NRC oversight (Green). Therefore, we plan to conduct reactor oversight process (ROP) baseline inspections at your facility.

The enclosed inspection plan details the inspections, less those related to physical protection, scheduled through June 30, 2010. In addition to the baseline inspections, an independent spent fuel storage installation inspection and a power uprate inspection will also be performed. The inspection plan is provided to allow for the resolution of any scheduling conflicts and personnel availability issues well in advance of inspector arrival onsite. Routine resident inspections are not listed due to their ongoing and continuous nature. The inspections in the last nine months of the inspection plan are tentative and may be revised at the mid-cycle review.

In accordance with 10CFR2.390 of the NRC's Rules of Practice, a copy of this letter and its enclosure will be made 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/adams.html (the Public Electronic Reading Room).

If circumstances arise which cause us to change this inspection plan, we will contact you to discuss the change as soon as possible. Please contact me at 610-337-5306 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

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

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

Enclosure: Millstone Inspection/ Activity Plan

cc w/encl.
S. Jordan, Site Vice President, Millstone Station
C. L. Funderburk, Director, Nuclear Licensing and Operations Support
W. Bartron, Supervisor, Station Licensing
J. Spence, Manager Nuclear Training
L. M. Cuoco, Senior Counsel
C. Brinkman, Manager, Washington Nuclear Operations
J. Roy, Director of Operations, Massachusetts Municipal Wholesale Electric Company
First Selectmen, Town of Waterford
B. Sheehan, Co-Chair, NEAC
E. Woollacott, Co-Chair, NEAC
E. Wilds, Jr., Ph.D, Director, State of Connecticut SLO Designee
J. Buckingham, Department of Public Utility Control
C. Meek-Gallagher, Commissioner, Suffolk County, Department of Environment and Energy
V. Minei, P.E., Director, Suffolk County Health Department, Division of Environmental Quality
R. Shadis, New England Coalition Staff
S. Comley, We The People
D. Katz, Citizens Awareness Network (CAN)
R. Bassilakis, CAN
P. Eddy, Electric Division, Department of Public Service, State of New York
P. Tonko, President and CEO, New York State Energy Research and Development Authority
J. Spath, SLO Designee, New York State Energy Research and Development Authority
N. Burton, Esq.
Institute of Nuclear Power Operations (INPO)

Mi[illegible]ne
Inspection / Activity Plan
01/01/2009 - 06/30/2010

Unit Number	Planned Dates Start	Planned Dates End	Inspection Activity	Title	No. of Staff on Site
			1/26EXAM	**- U2 INITIAL OPERATOR LICENSING EXAMS**	
2	01/26/2009	02/24/2009	U01634	FY-09 - U2 MILLSTONE INITIAL OL EXAM	4
			SIT	**- UNIT 3 SIT - VOID IN ECCS RWST SUCTION**	
3	12/15/2008	02/06/2009	IP 93812	Special Inspection	4
			7111121	**- CDBI**	
2, 3	01/12/2009	01/16/2009	IP 7111121	Component Design Bases Inspection	9
2, 3	01/26/2009	01/30/2009	IP 7111121	Component Design Bases Inspection	
2, 3	02/02/2009	02/06/2009	IP 7111121	Component Design Bases Inspection	
			71004	**- POWER UPRATE**	
3	01/01/2009	12/31/2009	IP 71004	Power Uprate	2
			71121	**- OCC RAD SAFETY**	
2, 3	02/23/2009	02/27/2009	IP 7112101	Access Control to Radiologically Significant Areas	1
2, 3	02/23/2009	02/27/2009	IP 7112102	ALARA Planning and Controls	
			ISFSI	**- ANNUAL SAMPLE - ISFSI INSPECTION**	
2, 3	04/13/2009	04/17/2009	IP 60855	Operation Of An ISFSI	2
			9/14EXAM	**- U3 INITIAL OPERATOR LICENSING EXAMS**	
3	08/10/2009	08/14/2009	U01758	FY-09 MILLSTONE UNIT 3 INITIAL OPERTOR LICENSING EXAM	5
3	09/14/2009	09/25/2009	U01758	FY-09 MILLSTONE UNIT 3 INITIAL OPERTOR LICENSING EXAM	
			71122.01	**- PUB RAD SAFETY - RETS**	
2, 3	05/18/2009	05/22/2009	IP 2515/173	Review of the Implementation of the Industry Ground Water Protection Voluntary Initiative	1
2, 3	05/18/2009	05/22/2009	IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems	
			7111111B	**- BIENNIAL REQUAL INSP (U3) W/ P/F RESULTS**	
2, 3	08/31/2009	09/04/2009	IP 7111111B	Licensed Operator Requalification Program	3
			EP PROGR	**- EP PROGRAM INSPECTION**	
2, 3	08/23/2009	08/29/2009	IP 7111402	Alert and Notification System Testing	2
2, 3	08/23/2009	08/29/2009	IP 7111403	Emergency Response Organization Augmentation Testing	
2, 3	08/23/2009	08/29/2009	IP 7111404	Emergency Action Level and Emergency Plan Changes	
2, 3	08/23/2009	08/29/2009	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
2, 3	08/23/2009	08/29/2009	IP 71151-EP01	Drill/Exercise Performance	
2, 3	08/23/2009	08/29/2009	IP 71151-EP02	ERO Drill Participation	
2, 3	08/23/2009	08/29/2009	IP 71151-EP03	Alert & Notification System	
			71122.03	**- PUB RAD SAFETY - REMP**	
2, 3	08/31/2009	09/04/2009	IP 2515/173	Review of the Implementation of the Industry Ground Water Protection Voluntary Initiative	1
2, 3	08/31/2009	09/04/2009	IP 7112203	Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control Program	

This report does not include INPO and OUTAGE activities.
This report shows only on-site and announced inspection procedures.

Millstone
Inspection / Activity Plan
01/01/2009 - 06/30/2010

Unit Number	Planned Dates Start	Planned Dates End	Inspection Activity	Title	No. of Staff on Site
			ISFSI - ISFSI INSPECTION - ANNUAL SAMPLE		
2	10/01/2009	12/31/2009	IP 60855	Operation Of An ISFSI	1
			7111108P - U2 INSERVICE INSPECTION		
2	10/13/2009	10/16/2009	IP 7111108P	Inservice Inspection Activities - PWR	1
			TI-172 - U2 RCS DISSIMILAR METAL BUTT WELDS		
2	10/13/2009	10/23/2009	IP 2515/172	Reactor Coolant System Dissimiliar Metal Butt Welds	1
			7111108P - U2 INSERVICE INSPECTION		
2	10/19/2009	10/23/2009	IP 7111108P	Inservice Inspection Activities - PWR	1
			71121 - OCC RAD SAFETY		
2	11/02/2009	11/06/2009	IP 7112102	ALARA Planning and Controls	1
			71152 - P&R		
2,3	02/08/2010	02/12/2010	IP 71152B	Identification and Resolution of Problems	4
2,3	02/22/2010	02/26/2010	IP 71152B	Identification and Resolution of Problems	
			71121 - OCC RAD SAFETY		
2,3	02/08/2010	02/12/2010	IP 7112101	Access Control to Radiologically Significant Areas	1
2,3	02/08/2010	02/12/2010	IP 7112102-7112102R	ALARA - Required	
			7111108P - U3 INSERVICE INSPECTION		
3	04/12/2010	04/23/2010	IP 7111108P	Inservice Inspection Activities - PWR	1
			TI-172 - U3 RCS DISSIMILAR METAL BUTT WELDS		
3	04/12/2010	04/23/2010	IP 7111108P	Inservice Inspection Activities - PWR	1
			71121 - OCC RAD SAEFTY		
2,3	04/19/2010	04/23/2010	IP 7112102-7112102R	ALARA - Required	1
			7111107T - TRIENNIAL HEAT SINK		
2,3	06/14/2010	06/18/2010	IP 7111107T	Heat Sink Performance	1

This report does not include INPO and OUTAGE activities.
This report shows only on-site and announce pection procedures.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

March 23, 2009

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

SUBJECT: MILLSTONE POWER STATION - UNIT 3 - NRC SPECIAL INSPECTION TEAM REPORT 05000423/2008010

Dear Mr. Christian:

On February 6, 2009, the U.S. Nuclear Regulatory Commission (NRC) completed a special inspection at the Millstone Power Station, Unit 3. The enclosed inspection report documents the inspection results, which were discussed on February 6, 2009, with Mr. A. J. Jordan, Site Vice President, and other members of your staff.

The special inspection was conducted in response to the October 20, 2008, discovery of an air void in the 24-inch diameter pipe connecting the refueling water storage tank to the suction of the emergency core cooling system (ECCS) pumps. The NRC's initial evaluation of this condition satisfied the criteria in NRC Inspection Manual Chapter 0309, "Reactive Inspection Decision Basis for Reactors," for conducting a special inspection. The basis for initiating this special inspection team is further discussed in the team's charter that is included as Attachment B to the enclosed report. The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The team reviewed selected procedures and records, technical evaluations, calculations, and construction documentation, and interviewed site personnel.

This report documents one self-revealing finding of very low safety significance (Green), which was determined to involve a violation of NRC requirements. However, because of the very low safety significance of the violation and because it was entered into your correction action program, the NRC is treating it as a non-cited violation (NCV) consistent with Section VI.A.1 of the NRC Enforcement Policy. If you contest the NCV documented in the enclosed report, you should provide a response within 30 days of the date of the inspection report, with the basis for your denial, 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 Inspectors at Millstone Power Station.

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

Sincerely,

Lawrence T. Doerflein, Chief
Engineering Branch 2
Division of Reactor Safety

Docket No: 50-423
License No: NPF-49

Enclosures: Inspection Report 05000423/2008010
w/Attachment A: Supplemental Information
w/Attachment B: Special Inspection Charter

SUMMARY OF FINDINGS

IR 05000423/2008010; 12/15/2008 – 02/06/2009; Dominion Nuclear Connecticut, Inc. (Dominion); Millstone Power Station, Unit 3 (MP3); Special Inspection Team Report

The report covered three on-site inspection visits by a special inspection team consisting of a Senior Reactor Analyst, Senior Reactor Engineer, a Project Engineer, and a Resident Inspector with support from a Region III Senior Reactor Inspector and staff members of the Office of Nuclear Reactor Regulation. One finding of very low safety significance (Green) was identified. The significance of most findings is indicated by their color (Green, White, Yellow, or Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

A. NRC-Identified and Self-Revealing Findings

Cornerstone: Mitigating Systems

- Green. The team identified a noncited violation (NCV) of Technical Specification (TS) 3.5.2.d which requires an operable residual heat removal (RHR) pump for each train of the emergency core cooling system (ECCS). The team found that Dominion did not maintain the 24-inch outside diameter piping connecting the refueling water storage tank (RWST) to the suction of the ECCS pumps sufficiently full of water to ensure operability of the RHR pumps following a large break loss-of-coolant accident (LLOCA). Additionally, the team determined that TS Surveillance 4.5.2.b requires that every 31 days Dominion verify the ECCS piping full of water but this section of piping was not checked. While performing actions to address NRC Generic Letter 2008-001, Dominion identified the air void and determined the piping did not have sufficient slope to allow venting back to the RWST. The team concluded the air void had the potential to air bind and make the RHR pumps inoperable during a LLOCA event. Following identification of the air void during the 2008 refueling outage, Dominion isolated and drained the piping, installed a vent valve, refilled the piping, and confirmed that the piping was full using an ultrasonic testing (UT) measurement.

  The performance deficiency was a failure to maintain the common ECCS suction piping sufficiently full of water, as required by TS surveillance 4.5.2.b, to ensure RHR pump operability in the event of a LLOCA, as required by TS 3.5.2.d. The finding is more than minor because it is associated with the design control attribute of the Mitigating Cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with NRC IMC 0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings," the Phase 1 screening identified that this issue was a design/qualification deficiency which resulted in the loss of the RHR system low pressure injection (LPI) safety function and required a Phase 2 evaluation.

In accordance with IMC 0609, Appendix A, "Determining the Significance of Reactor Inspection Findings for At-Power Situations," a Region I senior reactor analyst determined that the finding was of very low safety significance (Green) using a modified Phase 2 analysis and the MP3 plant-specific Phase 2 Notebook worksheet for a LLOCA. This assessment resulted in an increase in the core damage frequency on the order of low E-8 per year, which was dominated by the LLOCA frequency of E-5 per year and the probability of high pressure injection (HPI) failure, due to some other unrelated cause. The safety injection, charging and recirculation spray systems were still available to prevent core damage following a LLOCA initiating event, by performing the HPI and high pressure recirculation safety functions.

The finding did not have a crosscutting aspect.

B. Licensee-Identified Violations

None.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

~~OFFICIAL USE ONLY – SECURITY RELATED INFORMATION~~

March 30, 2009

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

SUBJECT MILLSTONE POWER PLANT - NRC SECURITY INSPECTION REPORT NOS. 05000336/2009402 AND 05000423/2009402

Dear Mr. Christian:

On February 27, 2009, the U.S. Nuclear Regulatory Commission (NRC) completed a security baseline inspection at your Millstone Power Station. The inspection covered one or more of the key attributes of the security cornerstone of the NRC's Reactor Oversight Process. The enclosed inspection report documents the inspection results, which were discussed on February 27, 2009, with Mr. A.J. Jordan, Site Vice President, and other members of your staff.

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

This report documents one NRC identified finding of very low security significance (i.e. Green as determined by the Physical Protection Significance Determination Process). The deficiency was promptly corrected or compensated for, and the plant was in compliance with applicable physical protection and security requirements within the scope of the inspection before the inspectors left the site. The finding had a cross-cutting aspect in the area of Human Performance, because expectations regarding procedural compliance were not effectively communicated.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter 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 Website at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room). However, because of the security-related information contained in the enclosure, and in accordance with 10 CFR 2.390, a copy of this letter's enclosure will not be available for public inspection.

When separated from its Enclosure, this document is DECONTROLLED.

~~OFFICIAL USE ONLY – SECURITY RELATED INFORMATION~~

In accordance with 10 CFR 2.390(b)(1)(ii), the NRC is waiving the affidavit requirements for your response, if any. This practice will ensure that your response will not be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system, ADAMS. If Safeguards Information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21. Otherwise, mark your entire response "Security-Related Information - Withhold Under 10 CFR 2.390" and follow the instructions for withholding in 10 CFR 2.390(b)(1).

Sincerely,

James M. Trapp, Chief
Plant Support Branch 1
Division of Reactor Safety

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

Enclosure: NRC Inspection Report Nos. 05000336/2009402, 05000423/2009402
w/Attachment: Supplemental Information
CONTAINS OFFICIAL USE ONLY – SECURITY RELATED INFORMATION (OUO-SRI)

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

March 31, 2009

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

SUBJECT: MILLSTONE POWER STATION – NRC COMPONENT DESIGN BASES INSPECTION REPORT 05000336/2009006 AND 05000423/2009006

Dear Mr. Christian:

On February 6, 2009, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at the Millstone Power Station. The enclosed inspection report documents the inspection results. The preliminary inspection results were discussed with Mr. A. J. Jordan, Site Vice President, and other members of your staff on February 6, 2009. Following in-office review of additional information, the final results of the inspection were provided via telephone to Mr. W. Bartron, Licensing Supervisor, and other members of your staff on March 6, 2009.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. In conducting the inspection, the team examined the adequacy of selected components and operator actions to mitigate postulated transients, initiating events, and design basis accidents. The inspection involved field walkdowns, examination of selected procedures, calculations and records, and interviews with station personnel.

This report documents four NRC-identified findings which were of very low safety significance (Green). All of these findings were determined to involve violations of NRC requirements. However, because of the very low safety significance of the violations and because they were entered into your corrective action program, the NRC is treating the violations as non-cited violations (NCV) consistent with Section VI.A.1 of the NRC Enforcement Policy. If you contest any NCV in this 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, D.C. 20555-0001, with copies to the Regional Administrator, Region 1; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001; and the NRC Resident Inspector at Millstone Power Station. In addition, if you disagree with the characterization of the cross-cutting aspect of any finding in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region I and the NRC Resident Inspector at the Millstone Power Station.

SUMMARY OF FINDINGS

IR 05000336/2009006, 05000423/2009006; 01/12/2009 – 02/06/2009; Millstone Power Station; Component Design Bases Inspection.

The report covers the Component Design Bases Inspection conducted by a team of five NRC inspectors and two NRC contractors. Four findings of very low risk significance (Green) were identified, which were also considered to be non-cited violations. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using NRC Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). The cross-cutting aspects were determined using IMC 0305, "Operating Reactor Assessment Program." Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

A. NRC-Identified and Self-Revealing Findings

Cornerstone: Mitigating Systems

- Green. The team identified a finding of very low safety significance involving a non-cited violation of 10 CFR 50, Appendix B, Criterion XI, "Test Control," in that, Unit 2 and Unit 3 written test procedures for battery performance testing were not adequate and did not ensure that test results were properly documented and evaluated to assure that the test requirements were satisfied. Specifically, the battery performance test procedure did not ensure that the correct discharge rate was used, that the test was terminated correctly, and that the battery capacity and subsequent decrease in capacity were correctly calculated and evaluated. In response, Dominion entered the issue into the corrective action program and determined that there was sufficient battery margin to assure operability of the station batteries.

  The finding is more than minor because it is associated with the procedure quality attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The team determined the finding was of very low safety significance (Green) because it was not a design or qualification deficiency, did not represent a loss of system safety function, did not represent an actual loss of safety function of a single train, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding has a cross-cutting aspect in the area of Human Performance, Resources Component, because Dominion did not ensure that complete, accurate, and up-to-date procedures were available and adequate to assure nuclear safety. Specifically, the battery performance test procedure did not ensure that the correct discharge rate was used, that the test was terminated correctly, and that the battery capacity and subsequent decrease in capacity were correctly calculated and evaluated. (IMC 0305, Aspect H.2(c)) (1R21.2.1.1.1)

- Green. The team identified a finding of very low safety significance involving a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," in that, Dominion did not take did not take corrective actions for a degraded cell in a Unit 2 safety related battery. Specifically, although testing of the 'B' battery between 1996 and 2008 indicated a degraded cell, actions were not taken to initiate a condition report or evaluate the impact of the degraded condition. In response, Dominion entered the issue into the corrective action program and determined that there was sufficient battery margin to assure operability of the battery.

  The finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The team determined the finding was of very low safety significance (Green) because it was not a design or qualification deficiency, did not represent a loss of system safety function, did not represent an actual loss of safety function of a single train, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program Component, because Dominion did not thoroughly evaluate the problem such that the resolution addressed the cause. Specifically, although data indicated cell 10 was degraded, no action was taken to evaluate the reduced cell capacity on the overall battery. (IMC 0305, Aspect P.1(c)) (1R21.2.1.1.2)

- Green. The team identified a finding of very low safety significance involving a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," in that, Dominion did not take corrective actions for repeated out-of-calibration test results associated with Unit 2 safety related inverters. Specifically, although testing of the safety related inverters between 2005 and 2008 indicated that the as-found results were frequently out-of-calibration, actions were not always taken to initiate a condition report; and condition reports that were generated, did not evaluate the repetitive failure to remain in calibration. In response, Dominion entered the issue into the corrective action program and determined that the out-of-calibration results did not render the safety related instrument panels inoperable.

  The finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The team determined the finding was of very low safety significance (Green) because it was not a design or qualification deficiency, did not represent a loss of system safety function, did not represent an actual loss of safety function of a single train, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program Component, because Dominion did not thoroughly evaluate the problem such that the resolution addressed the cause. Specifically, although testing of the safety related inverters between 2005 and 2008 indicated regular out-of-calibration as-found results, actions were not always taken to initiate a condition report; and condition reports that were generated, did not evaluate the repetitive failure to remain in calibration. (IMC 0305, Aspect P.1(c)) (1R21.2.1.2)

- Green. The team identified a finding of very low safety significance involving a non-cited violation of 10 CFR 50, Appendix B, Criterion III, "Design Control," in that Dominion did not ensure the adequacy of the recirculation spray system heat exchanger design. Specifically, Dominion had not performed analyses or testing to evaluate the potential of air entrapment in the recirculation spray system heat exchangers under post-accident conditions. In response, Dominion entered this issue into their corrective action program and performed analyses to demonstrate that this condition did not render associated equipment inoperable.

  This finding is more than minor because it is associated with the design control attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The team determined the finding was of very low safety significance (Green) because it was a design or qualification deficiency confirmed not to result in a loss of recirculation spray system operability or functionality. This finding did not have a cross-cutting aspect. (1R21.2.1.24)

B. Licensee-Identified Violations

None

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

April 7, 2009

Docket No. 05000245 License No. DPR-21

David A. Christian
President and Chief Nuclear Officer
Dominion Nuclear Connecticut, Inc.
5000 Dominion Boulevard
Glenn Allen, VA 23060-6711

SUBJECT: NRC INSPECTION REPORT NO. 05000245/2009007, DOMINION NUCLEAR CONNECTICUT, INC., MILLSTONE POWER STATION UNIT 1, WATERFORD, CT

Dear Mr. Christian:

On March 9-11, 2009, Laurie Kauffman of this office conducted a safety inspection of activities authorized by the above listed NRC license. The inspection was an examination of your licensed activities as they relate to radiation safety and to compliance with the Commission's regulations and the license conditions. The inspection consisted of observations by the inspector, interviews with personnel, and a selective examination of representative records. The findings of the inspection were discussed with Mr. L. Morris and other members of your organization on March 11, 2009 at the conclusion of the inspection.

Within the scope of this inspection, no violations were identified.

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

Sincerely,

Randolph C. Ragland Jr., Chief
Decommissioning Branch
Division of Nuclear Materials Safety

cc w/ encl:
see next page

NUCLEAR ENERGY ADVISORY COUNCIL
7:15 PM
July 22, 2009
BOARD OF EDUCATION CONFERENCE ROOM
WATERFORD TOWN HALL
WATERFORD, CT
SPECIAL MEETING
MINUTES

Members Present

Mr. Bill Sheehan, Chair
Mr. Denny Hicks
Ms. Marge DeBold
Rep. Kevin Ryan
Dr. Gregg Dixon
Mr. John Markowicz
Mr. Robert Klancko
Ms. Pearl Rathbun
Dr. Edward Wilds, representing DEP, Commissioner Gina McCarthy

Meeting followed a Tour of the Millstone Power Station that started at 4:00 PM at the Sillian Training Center, Millstone Power Station. (See attached Tour Schedule.) Tour was informative and well accepted by members attending. Mr. Tom Nebel and all members above attended the tour.

1. **Call to Order of Meeting Co-Chaired by NEAC and NRC Region 1**

NEAC Chair Sheehan called the meeting to order at 7:24 PM in the Waterford Town Hall Board of Education Conference Room in Waterford, Connecticut.

2. **Approval of Minutes of April 23, 2009 NEAC meeting.**

Motion to accept made and seconded. All in favor with Ms. Pearl Rathbun, John Markowicz, and Robert Klancko abstaining.

- **PROGRAM**
  1. **Update on Millstone Station Operations by Dominion Nuclear Connecticut Representatives**

     Dominion Staff Present: Daniel Weekley, Nancy Buckley, Richard MacManus, and Tom Cleary. NRC Staff Present: Steve W. Shaffer, Millstone Senior Resident Inspector

     Daniel Weekley provided presentation on Millstone Station Performance covering:

     - 2nd half 08/09 YTD Operational Review

- M2 Status
- NPDES Update
- Challenges/Opportunities 2009 & Beyond
- New England Energy – Dominion View.

Presentation completed at 8:31 PM. See attached presentation.

- **Public Comment**

  No members of the public were present

- **NRC Correspondence Received since past meeting.**

Chairman Sheehan provided each member with a copy of the significant correspondence received from the U.S. Nuclear Regulatory Commission since the last NEAC meeting and reviewed this information with NEAC members (See Attached). Chairman Sheehan also reported that additional correspondence on minor licensing issues was received as a point of information.

- **Next Meeting Date and Time**

The next meeting date has been set for Thursday, October 22, 2009. The tentative agenda for the meeting is a Spent Nuclear Fuel and Recycling briefing.

- **Adjournment**

Motion was made and seconded to adjourn; no objections; unanimous vote in favor; meeting adjourned at 8:39 PM.

Dominion®

CT Nuclear Energy Advisory Council

July 22, 2009

Agenda

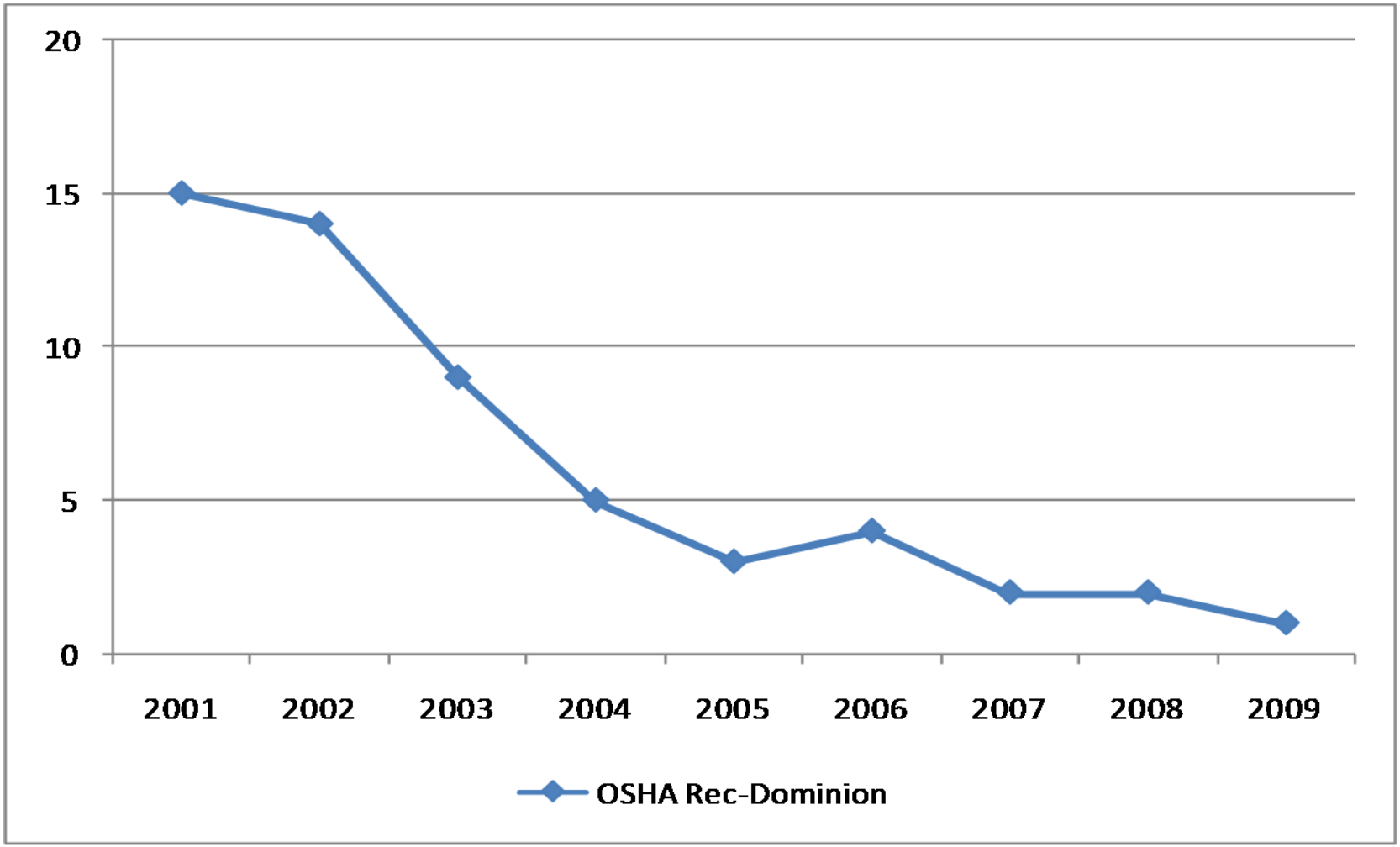
- 2nd half 08/09 YTD Operational Review
  - Challenges
  - Successes
- M2 Status
- NPDES Update
- Challenges/Opportunities 2009 & Beyond
- New England Energy – *Our View*
- Q & A

Dominion

Aerial View of Millstone

Safety is always our top priority

OSHA Recordables



Dominion

Challenges in 2008

- May 23 - An Unusual Event is declared at Unit 2 after an offsite lightning strike trips the unit
- June 30 - Unit 2 is taken off-line after operators discover oscillations in the feedwater heater system
- Oct 11 - Missed Breaker-To-Breaker run at Unit 3 by 1.5 hours; unit was on line 512 days!

Dominion

Accomplishments in 2008

- April - M2 enters 2R18 Refueling Outage with a Breaker-To-Breaker run of 504 days, the best in the unit's 30-year history!
- Transformer upgrades completed on M2
- Technical training re-accreditation received
- Unit 2 and 3 Operators achieve 100 percent pass rate on NRC operator fundamentals exam
- July - Units 2 & 3 complete B5b emergency plan
- M3 uprate of 74 Mw's, 3-year process

Dominion

2009 YTD

- M3 on-line 240 days
- Progress on VFD's
- Completion of NPDES hearings
- Emergency Planning
  - Hostile Action Based Drill
  - Completion of Community Sirens Replacement Project
- Fuel movement to ISFSI
  - Total of 19 modules constructed with 11 containing SNF
- M2 on-line 368 days until July 3rd

Dominion

July 3, 2009

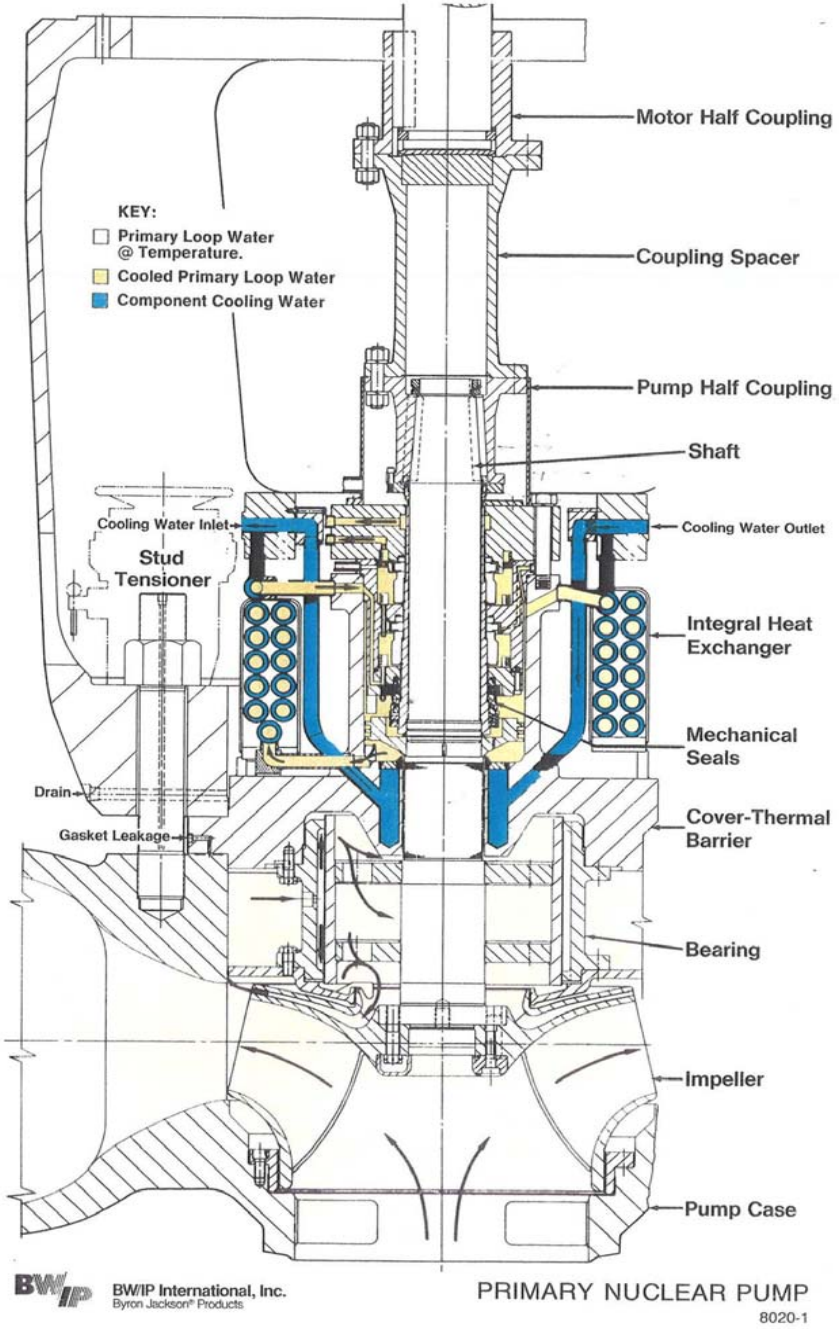
- Both units operating at 100% power
- Significant thunderstorm and associated staccato lightning strikes on Montville line cause “grid disturbance”
  - M2 automatic reactor trip due to disturbance
  - Uncomplicated shutdown
  - Decision to repair “monitored” leakage on RCP seal
  - Cause discussions with ISO-NE and Convex
- M3 - grid disturbance observed but unit remained on-line connected to the grid

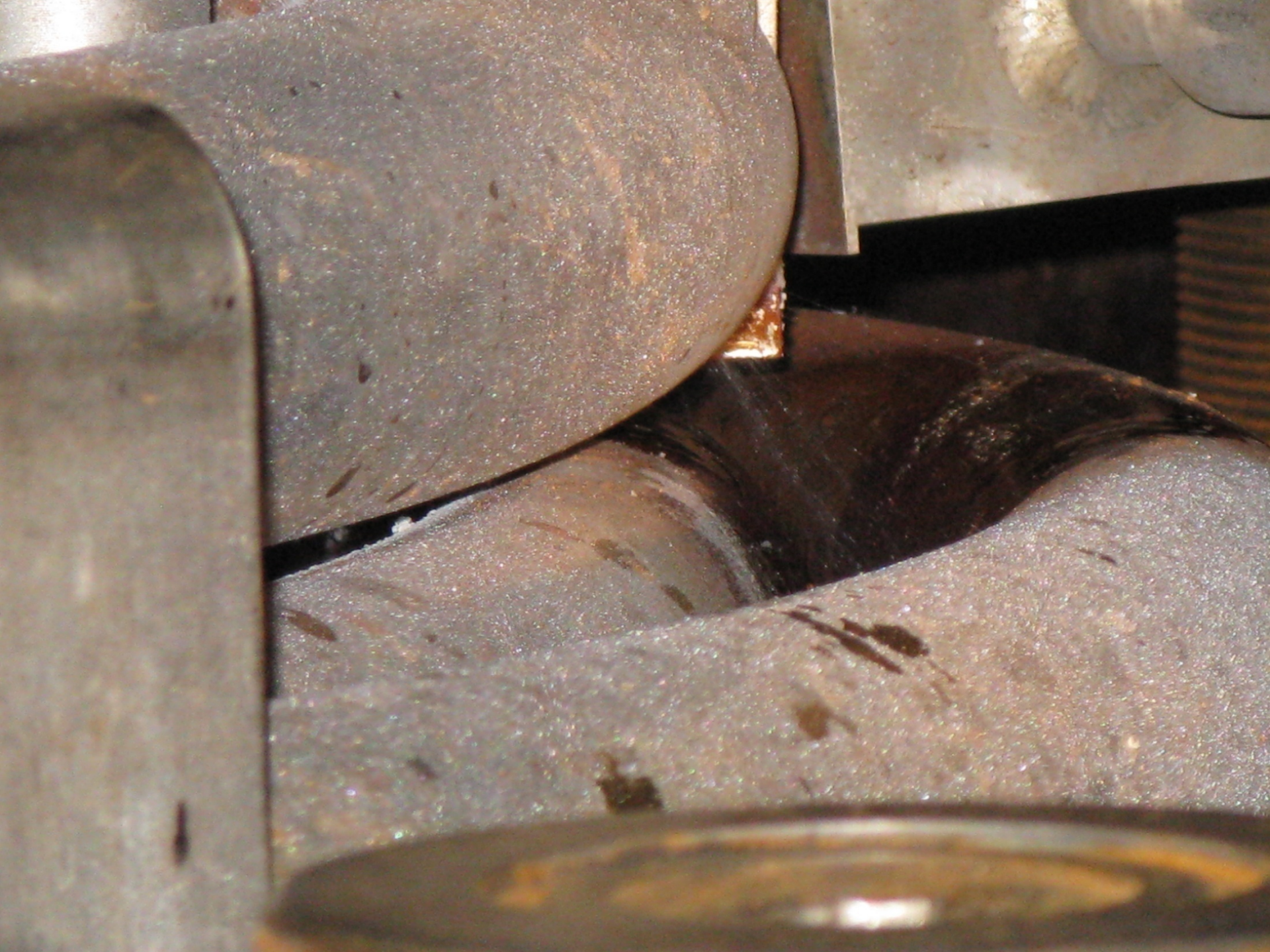
Dominion

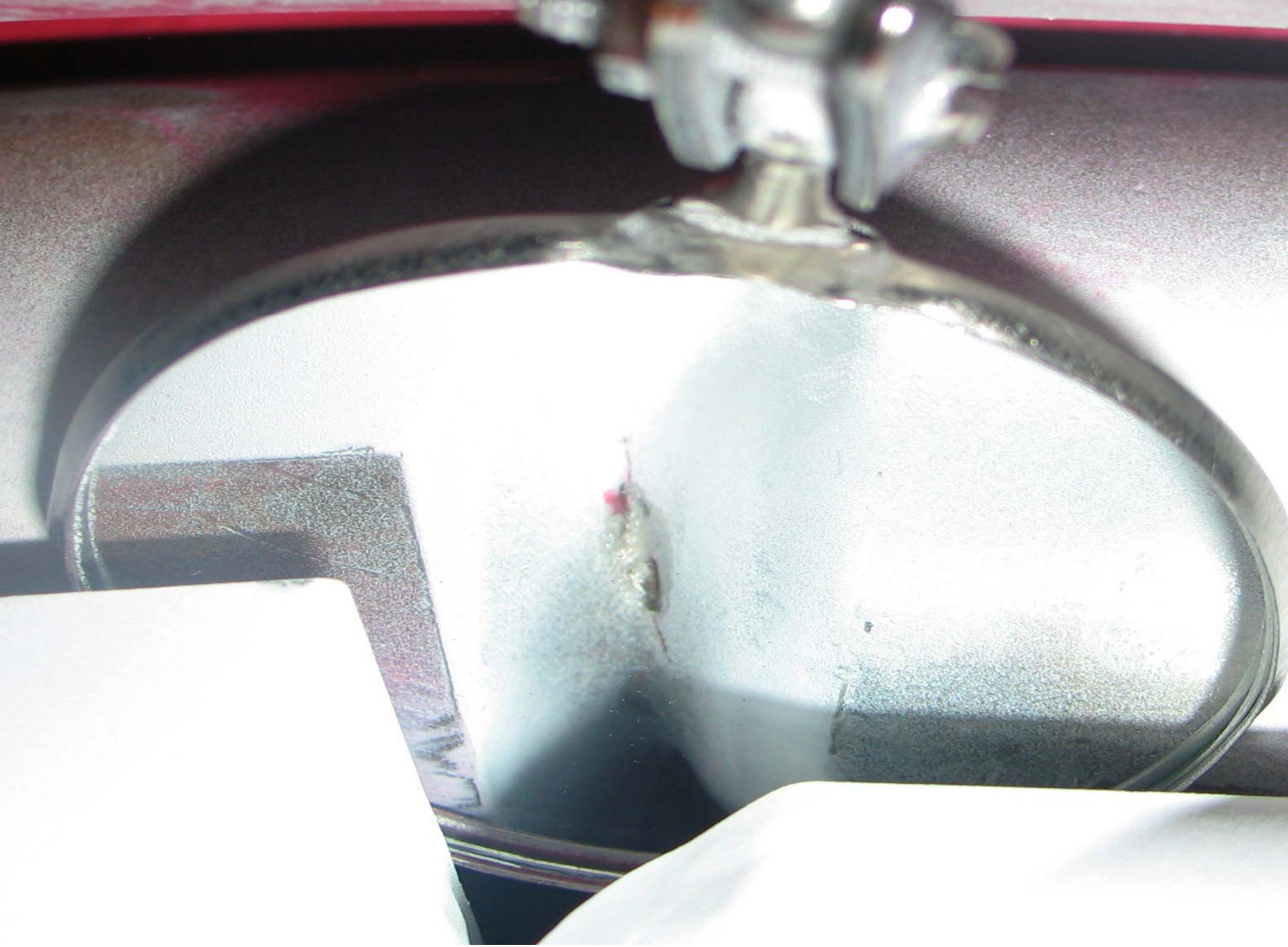
M2 - Challenges to Restart

- RCP Seal Package
  - Repair completed 7/10/09
- RCP Seal Cooler Leak
  - Detected on restart during visual walkdown
  - .01 ± gal/min (very small leak)
  - OEM weld defect
  - Difficulty in performing code repair/inspection
- Enclosure Building Filtration System
  - Demonstrate removal capability prior to release to atmosphere
  - 99% particulates
  - 95% radioactive gases

Dominion

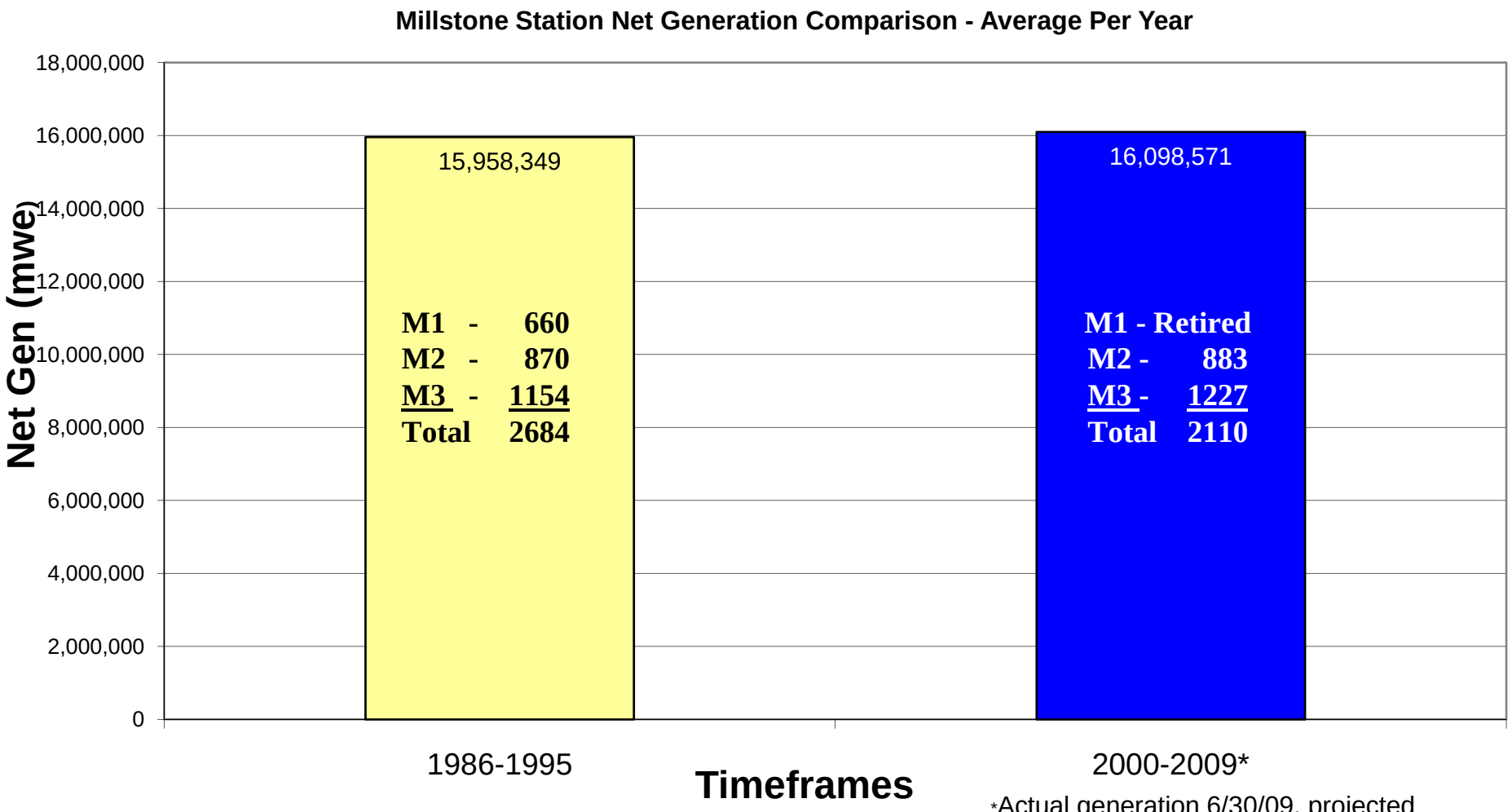

KEY:
Primary Loop Water @ Temperature.
Cooled Primary Loop Water
Component Cooling Water
Motor Half Coupling
Coupling Spacer
Pump Half Coupling
Shaft
Cooling Water Inlet
Cooling Water Outlet
Stud Tensioner
Integral Heat Exchanger
Mechanical Seals
Drain
Gasket Leakage
Cover-Thermal Barrier
Bearing
Impeller
Pump Case
BW/IP International, Inc.
Byron Jackson® Products
PRIMARY NUCLEAR PUMP
8020-1





Millstone Average Net Generation

Reliability Investments are Working



*Actual generation 6/30/09, projected through 12/31/2009

NPDES Permit

- Millstone has been seeking to renew permit since 1997
- The existing permit is still in effect
- MPS has collected biological data for more than 30 years
- More than 70 submittals to DEP totaling approx. 7000 pages
- Draft Permit issued December ‘07

Dominion

NPDES

con't

- Settlement reached with 2 of 3 intervenors (CFE, Long Island Soundkeeper)
- Technology study identified
- Hearing Officer Final Proposed Decision likely by September
- Expect final ruling of Commissioner's designee by 4th qtr/'09 or 1st qtr/'10
- Federal Supreme Court overturns RK II and allows cost impact data

Dominion

Challenges for 2009 and beyond

- Complete construction on variable frequency drives during 2R19 (‘09) and 3R13 (’10)
- Upgrade Fuel Transfer component on M2 (’09)
- In-Core Instrumentation (ICI) thimble repair M2 (‘09)
- Complete new step-up transformers on M3 (’10)
- Replace Plant Process Computer on M3 (’10)

Dominion

New England Energy

Our View…..

- Greater Focus on Fuel Diversity
- Building Generation
  - Siting
  - Capital
- National Climate Initiative
  - Good for New England on cost
- Demand Response
  - Great but won't solve our problems

Dominion

Q & A

Dominion

Points of Contact

- Richard MacManus
  Director – Nuclear Safety and Licensing
  (860) 444-5377 Richard.MacManus@dom.com

- Dan Weekley
  Managing Director - Northeast Government Affairs
  (860) 444-5271 Daniel.A.Weekley@dom.com

Dominion

For additional information, visit us at
www.dom.com

NUCLEAR ENERGY ADVISORY COUNCIL
7:15 PM
July 22, 2009
BOARD OF EDUCATION CONFERENCE ROOM
WATERFORD TOWN HALL
WATERFORD, CT
SPECIAL MEETING
AGENDA

Regular Meeting Scheduled for July 23, 2009 is cancelled

Meeting will follow a Tour of the Millstone Power Station which starts at 4:00 PM at the Sillian Training Center, Millstone Power Station and a brief dinner in the Board of Education Conference Room starting at approximately 6:45 PM.

1. **Call to Order**

2. **Approval of Minutes of April 23, 2009 NEAC meeting**

3. **PROGRAM:**
   a) **Update on Millstone Station Operations by Dominion Nuclear Connecticut Representatives**

4. **Public Comment**

5. **NRC Correspondence Received since past meeting.**

6. **Next Meeting Date and Time**

7. **Adjournment**

CT Nuclear Energy Advisory Council
Plant Tour

Wednesday, July 22, 2009

Guests		Dominion
NEAC:		Skip Jordan
J. W. "Bill" Sheehan	Robert Klancko	Rich MacManus
John Markowicz	Tom Nebel	Dan Weekley
Denny Hicks	Marjorie DeBold	Jeff Semancik
Dr. Ed Wilds	Gregg Dixon	
Dr. Kevin Ryan	Pearl Rathbun	

1600	Guests arrive at Simulator Foyer
1600 - 1615	Safety Brief (Simulator Foyer)
1615 – 1620	Travel down to NAP (shuttle bus)
1620 – 1630	Sign in at NAP & proceed through security to protected area (PPE / cafeteria)
1630 - 1755	Actual Plant Tour ▪ U2 Intake ▪ VSP Inspection ▪ Turbine Deck ▪ U2 Control Room
1755 - 1815	Q&A Session (Bldg. 437, Management Conference Room)
1830	Return trip to Simulator – via discharge canal and ISFSI (time permitting) (shuttle bus)

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

May 14, 2009

EA-09-044

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

SUBJECT: MILLSTONE POWER STATION - NRC INTEGRATED INSPECTION REPORT 05000336/2009002 AND 05000423/2009002 AND EXERCISE OF ENFORCEMENT DISCRETION

Dear Mr. Christian:

On March 31, 2009, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Millstone Power Station Unit 2 and Unit 3. The enclosed inspection report documents the inspection results, which were discussed on April 9, 2009, with Mr. A. J. Jordan and other members of your staff.

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

This report documents one self-revealing finding of very low safety significance (Green). Additionally, a licensee-identified violation determined to be of very low safety significance is listed in the report. However, because of the very low safety significance and because it is entered into your corrective action program, the NRC is treating the licensee identified violation as a non-cited violation (NCV) consistent with Section VI.A.1 of the NRC Enforcement Policy. If you contest any NCV in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN.: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region 1; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at Millstone.

In addition, the inspectors reviewed Licensee Event Report 50-423/2008-005, which described the details associated with the failure to maintain 3FWS*V861, "C" steam generator (SG) drain line isolation valve fully closed. This valve was relied on to meet technical specification (TS) containment penetration requirements during fuel movement in the Unit 3 containment from November 1-3, 2008. This was a violation of TS Section 3.9.4.c., which requires each penetration providing direct access from the containment atmosphere to the environment be

closed by an isolation valve, blind flange, or manual valve or be capable of being closed under administrative control during movement of fuel within the containment building. A risk evaluation was performed and the issue was determined to be of very low safety significance. Although this issue constitutes a violation of NRC requirements, the NRC determined that the failure to completely close the valve was not within Dominion's ability to reasonably foresee and correct, and as a result, the NRC did not identify a performance deficiency associated with this condition. The NRC's assessment considered that the valve does not have position indication to provide an alternate means to verify valve position, there were no past condition reports (CR) documenting difficulty in closing the valve, the work order (WO) documenting "like for like" valve replacement in 2007 did not indicate difficulty in operating the valve, and Dominion took corrective action to close the valve and enter the issue into their corrective action process. Based on the results of the NRC's inspection and assessment, I have been authorized, after consultation with the Director, Office of Enforcement, and the Regional Administrator, to exercise enforcement discretion in accordance with Section VII.B.6 of the Enforcement Policy and refrain from issuing enforcement for this violation.

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

Sincerely,

David C. Lew, Director
Division of Reactor Projects

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

Enclosure: Inspection Report No. 05000336/2009002 and 05000423/2009002
w/Attachment: Supplemental Information

cc w/encl:
J. Price, Vice President, Engineering, Dominion Fleet
A. Jordan, Site Vice President, Millstone Station
C. Funderburk, Director, Nuclear Licensing and Operations Support
L. Morris, Plant Manager, Millstone Station
W. Bartron, Supervisor, Station Licensing
J. Spence, Manager Nuclear Training
L. Cuoco, Senior Counsel
C. Brinkman, Manager, Washington Nuclear Operations
J. Roy, Director of Operations, Massachusetts Municipal Wholesale Electric Company
First Selectmen, Town of Waterford
B. Sheehan, Chair, NEAC
P. Rathbun, Vice-Chair, NEAC

SUMMARY OF FINDINGS

IR 05000336/2009-002, 05000423/2009-002; January 1, 2009 – March 31, 2009; Millstone Power Station Unit 2 and Unit 3.

The report covered a three-month period of inspection by resident and region-based inspectors. Two Green findings were identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process." Findings for which the significance determination process (SDP) does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

A. NRC-Identified and Self-Revealing Findings

Cornerstone: Initiating Events

- Green. A self-revealing finding of very low safety significance (Green) was identified for Dominion's failure to control Unit 3 Steam Generator (SG) levels while operating at power. Specifically, Dominion's failure to control SG levels resulted in a reactor trip while reducing power for a plant shutdown. Dominion entered this issue into their corrective action program (CR113512), and corrective actions included conducting just-in-time (JIT) training on low power feed station operation for licensed operators prior to reactor start up.

  This finding is more than minor because it was associated with the Human Performance Attribute of the Initiating Events cornerstone and affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The inspectors conducted a Phase 1 screening, in accordance with IMC 0609, "Significance Determination Process," and determined that the finding is of very low safety significance (Green) because it did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. The inspectors determined that this finding had a cross cutting aspect in the area of Human Performance, Work Control, because Dominion did not coordinate work activities, consistent with nuclear safety, by incorporating actions to address the operational impact on control room personnel [H.3.(b)]. (Section 4OA3.1).

B. Licensee-Identified Violations

One violation of very low safety significance, which was identified by the licensee has been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. This violation and corrective actions are listed in Section 4OA7 of this report.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

May 18, 2009

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

SUBJECT: MILLSTONE POWER STATION, UNIT 2 – NRC EXAMINATION REPORT NO. 05000336/2009301

Dear Mr. Christian:

On February 24, 2009, the U.S. Nuclear Regulatory Commission (NRC) completed an examination at Millstone Unit 2. The enclosed report documents the examination findings, which were discussed on April 17, 2009, with Mr. Michael Cote.

The examination included the evaluation of two applicants for reactor operator licenses, two applicants for instant senior operator licenses and six applicants for upgrade senior operator licenses. The written and operating examinations were developed using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9, Supplement 1. The license examiners determined that four of the ten applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses have been issued. Four of the six applicants for upgrade senior operator licenses passed their exams but their licenses are being held until you certify in writing that they have acquired all of the training and experience for which they were previously granted a waiver. The remaining two applicants for upgrade senior operator licenses failed the written portion of their exams and were denied a license.

No findings of significance were identified during this examination. However, the NRC determined that the written portion of the initial examination submittal was outside the acceptable quality range expected by the NRC and future examination submittals should incorporate any lessons learned from this effort.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure 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/adams.html (the Public Electronic Reading Room).

Sincerely,

Samuel L. Hansell, Jr., Chief
Operations Branch
Division of Reactor Safety

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

July 21, 2009

Mr. David A. Heacock
President and Chief Nuclear Officer
Dominion Nuclear Connecticut, Inc.
Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, VA 23060-6711

SUBJECT: MILLSTONE POWER STATION, UNIT NO. 2 – NUCLEAR REGULATORY COMMISSION (NRC) STAFF REVIEW OF THE 2008 STEAM GENERATOR TUBE INSPECTIONS (TAC NO. ME0094)

Dear Mr. Heacock:

By letters dated October 24, 2008, and May 20, 2009 (Agencywide Document Access and Management System Accession Nos. ML083090396 and ML091540203, respectively), Dominion Nuclear Connecticut, Inc., (DNC or the licensee) submitted information pertaining to the 2008 steam generator tube inspections performed at Millstone Power Station, Unit 2 (MPS2) during the cycle 18 refueling outage.

The NRC staff has reviewed the information DNC provided and concludes that DNC has provided the information required by the MPS2 Technical Specifications and that no additional follow-up is required at this time. The NRC staff's review is enclosed. This closes TAC No. ME0094.

If you have any questions, please contact me at 301-415-1603.

Sincerely,

Carleen J. Sanders, Project Manager
Plant Licensing Branch 1-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-336

Enclosure:
As stated

cc w/encl: Distribution via Listserv

REVIEW OF 2008 STEAM GENERATOR TUBE INSPECTIONS

MILLSTONE POWER STATION, UNIT NO. 2

DOCKET NO. 50-336

By letters dated October 24, 2008, and May 20, 2009 (Agencywide Document Access and Management System Accession Nos. ML083090396 and ML091540203, respectively), Dominion Nuclear Connecticut, Inc., (DNC or the licensee) submitted information pertaining to the 2008 steam generator (SG) tube inspections performed at Millstone Power Station, Unit No. 2 (MPS2) during the cycle 18 refueling outage.

MPS2, has two SGs, each one contains approximately 8,523 thermally treated Alloy 690 tubes. Each tube has a nominal outside diameter of 0.75 inches and a nominal wall thickness of 0.0445 inches. The tubes were hydraulically expanded at both ends for the full depth of the tubesheet. The tubes are supported by type 410 stainless steel lattice grids.

DNC provided the scope, extent, methods, and results of their SG tube inspections in the October 24, 2008, and May 20, 2009, letters. In addition, the licensee described corrective actions (e.g., tube plugging) taken in response to the inspection findings.

Based on its review of DNC's submittals, the U.S. Nuclear Regulatory Commission (NRC) staff has the following observations and comments:

- As of the 2008 refueling outage, the SGs had operated for approximately 117 effective full-power months (EFPM). The SGs have operated for approximately 101 EFPM in their 144 EFPM sequential period.

- There are no tubes in close proximity to each other.

- There is one tube in SG 1 that was only partially expanded into the tubesheet. The tube is not expanded for approximately 10 inches near the top of the tubesheet.

Based on a review of the information provided, the NRC staff concludes that DNC provided the information required by the MPS2 Technical Specifications. In addition, the NRC staff concludes that there are no technical issues that warrant follow-up action at this time since the inspections appear to be consistent with the objective of detecting potential tube degradation and the inspection results appear to be consistent with industry operating experience at similarly designed and operated units.

Enclosure

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

July 21, 2009

Mr. David A. Heacock
President and Chief Nuclear Officer
Dominion Nuclear Connecticut, Inc.
Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, VA 23060-6711

SUBJECT: MILLSTONE POWER STATION, UNIT NO. 2 – WELD OVERLAY RELIEF REQUEST

Dear Mr. Heacock:

By letter dated May 8, 2008 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML081150692), the U.S. Nuclear Regulatory Commission (NRC) authorized Dominion Nuclear Connecticut, Inc. (DNC) use of Request for Alternative RR-89-61, Revision 1, for the installation of full structural weld overlays on the dissimilar metal welds and adjacent similar metal welds identified in the safety evaluation enclosed in the May 8, 2008, letter for Millstone Power Station, Unit No. 2. On March 12, 2009, a phone call was held between NRC staff and DNC staff to discuss the use of RR-89-61, Revision 1, during the fall 2009 outage. RR-89-61, Revision 1, does not encompass certain weld overlays DNC would like to use during the fall 2009 outage; as a result a separate relief request will be needed. Mr. William Barton, of your staff, informed the NRC that a relief request would not be submitted to the NRC for review until July 2009 for the fall 2009 outage. While the NRC staff will attempt to complete its review of this submittal as soon as practical, it is possible that this review will not be able to be completed in the time frame that has been discussed.

When applications for licensing actions are received, the NRC staff schedules the review activity. Implicit in this scheduling is an expectation that adequate time will be available to allow the NRC staff to complete a thorough review of the application. This includes time needed to request information not included in the original application, as well as, time for the licensee to respond to the request.

The NRC staff endeavors to complete routine licensing actions within 12 months of the application. This supports the NRC's goals of efficiency and reliability. In achieving these goals, it is incumbent for licensees to plan activities and submittals ensuring a sufficient period for NRC staff to complete their review activities.

If you have any questions regarding this letter, please contact me at 301-415-1603.

Sincerely,

Carleen J. Sanders, Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-336

cc: Distribution via Listserv

Possible NEAC Meeting Topics

Joint NRC/NEAC Meeting
Brief by NRC on new reactor plant approval process
Tour of Millstone Power Station followed by Dominion Update Brief
Update on Dominion Operator Training Requirements
Update on Employee Concerns and Safety Conscious Work Environment
Spent Fuel Storage and Recycling Procedures Update
Annual Report Preparation

2009 Meeting Schedule
Thursday April 16, 2009 – NRC 2008 Performance Evaluation
Thursday July 23, 2009 – Tour of Millstone Power Station/Dominion Update
Thursday October 22, 2009 – Briefing of Latest in Spent Fuel Storage and Recycling
Thursday December 10, 2009 – Annual Report Preparation

NUCLEAR ENERGY ADVISORY COUNCIL
7:00 PM
October 29, 2009
BOARD OF EDUCATION CONFERENCE ROOM
WATERFORD TOWN HALL
15 ROPE FERRY ROAD
WATERFORD, CT
SPECIAL MEETING
MINUTES

Members Present

Mr. Bill Sheehan, Chair
Ms. Marge DeBold
Dr. Gregg Dixon
Mr. Denny Hicks
Mr. John Markowicz
Mr. Thomas Nebel
Ms. Pearl Rathbun
Rep. Kevin Ryan
Mr. James Sherrard
Dr. Edward Wilds, representing DEP, Commissioner Amey Marrella

- **Call to Order of Meeting**

NEAC Chair Sheehan called the meeting to order at 7:01 PM in the Waterford Town Hall Board of Education Conference Room in Waterford, Connecticut.

- **Approval of Minutes of July 22, 2009 NEAC meeting.**
  Motion to accept made and seconded. All in favor with Mr. James Sherrard abstaining.

- **PROGRAM**
  1. **Briefing on Yucca Mountain and Spent Nuclear Fuel Issues by Northeast High-Level Radioactive Waste Transportation Project.**
     Project Director – Cort Richardson.

     Presentation completed at 8:54 PM. See attached presentation.

- **Public Comment**
  No members of the public were present

- **NRC Correspondence Received since past meeting.**

Chairman Sheehan provided each member with a copy of the significant correspondence received from the U.S. Nuclear Regulatory Commission since the last NEAC meeting and reviewed this information with NEAC members (See Attached).

Ms. Marge DeBold also reported to the members that the Connecticut Yankee Fuel Storage Advisory Committee will now only meet once per year.

- **Next Meeting Date and Time**

The next meeting date has been set for Thursday, December 10, 2009. The tentative agenda for the meeting is the preparation of the 2009 NEAC Annual Report.

- **Adjournment**

Motion was made and seconded to adjourn; no objections; unanimous vote in favor; meeting adjourned at 8:59 PM.

THE COUNCIL OF STATE GOVERNMENTS
EASTERN REGIONAL CONFERENCE

Northeast High-Level Radioactive Waste Transportation Project

"Update on Federal HLW Policy"

Nuclear Energy Advisory Committee

October 29, 2009 -- Waterford, CT

Cort Richardson, Director

Northeast High-Level Radioactive Waste Transportation Project

- 1 full-time staff with an office in Montpelier, VT
- Sponsored by The Council of State Governments (CSG), a nonpartisan, nonprofit organization that seeks to foster excellence in state government
- CSG is headquartered in KY w/4 regional offices
- Project funded by Department of Energy (DOE) cooperative agreement grants

Project Activities

- Facilitate communication between DOE & NE states to plan SNF/HLW transport
- Monitor DOE shipments through the NE
- Coordinate with other SRGs
- Facilitate ER training for state/locals
  - Transportation Emergency Preparedness Program, TRANSCOM

Project Activities

- Research Activities: e.g. rail routing study
- Maintain N-transport knowledge base
- Public Outreach: publications, news articles
- Website: http://www.csgeast.org/radwaste
- Staff Task Force representing NE states
- Serve on DOE/stakeholder committees

NE High-Level Radioactive Waste Task Force

- Members and alternates from 10 Northeast states (New England plus NY, PA, NJ, and DE)
- Governor-appointed representatives from executive branch agencies
  - State officials from emergency management, environmental protection, health, utility and transportation departments
  - Plan to add legislative liaisons
- Meets 1-2x/yr w/Project staff

Northeast Task Force Activities

- Provide comments on federal policies
- Participate in TEC, DOE Transportation External Coordination Working Group
- Provide a forum for communication/ cooperation among NE states, federal government and other parties
- Report to state governments

Areas of Focus

- Routing of SNF and HLW shipments
- Federal funding for ER planning
- Rad transport vehicle inspections
- Monitoring shipments
- Intermodal transport
- Shipment security

Transportation External Coordination WG → National Transportation Stakeholders Forum

- TEC founded in 1992 to improve coordination between stakeholders for developing rad waste transportation policies and plans
- Topic Group committees established
- With 2009 YMP cancellation NTSF formed
- National, state, and tribal governments attend
- Formerly met 2 times/yr; 1 mtg. set for 2010

The Council of State Governments

Eastern Regional Conference

High-Level Radioactive Waste in the Northeast

- Inventory:
  - 24 operating commercial reactors at 14 sites in the Northeast; 5 shutdown reactors
  - Several federal and university facilities
  - 14,000 metric tons of SNF/HLW waste stored at 25 sites
- Challenges for Transportation:
  - Congestion on roadways and railways
  - Densely populated “Northeast Corridor”
  - Aging infrastructure
  - Lack of public experience & support for SNF transport

GOVERNOR	STATE	Pop.	Payment & Interest NWF	Radioactive Waste – Metric Tons
M. Jodi Rell	Connecticut	3,510,297	$ 766,600,000	1,787
John Baldacci	Maine	1,321,505	$ 189,400,000	542
Deval Patrick	Massachusetts	6,398,743	$ 664,400,000	586
John Lynch	New Hampshire	1,309,940	$ 135,700,000	398
Jon Corzine	New Jersey	8,717,925	$1,214,400,000	2,092
Dave Paterson	New York	19,254,630	$1,662,500,000	3,561
Ed Rendell	Pennsylvania	12,429,616	$1,991,500,000	4,978
Jim Douglas	Vermont	623,050	$ 278,800,000	526
Northeast States Contributing to the Nuclear Waste Fund				
Jack Markell	Delaware	843,524	$ 66,100,000	
Don Carcieri	Rhode Island	1,076,189	$ 13,500,000	

2007 data from DOE, EIA, and NEI

Short Line & Regional Railroad Study

- Started in 2006 as NE & DOT/FRA Partnership
- Purpose: Investigate condition of RR infrastructure
- Propose standards necessary for safe operations
- Assess RR connections to nuclear power plants
- Protocols designed to conduct n-plant site visits
- Field team staffed by Project, Task Force members, fed & state FRA, DOE and local railroads
- To date have visited: Salem/Hope Creek (NJ), Ginna (NY), Millstone (CT) and Vermont Yankee (VT)
- Report findings to NE States, DOE & stakeholders


4 9:03 AM

SNF/HLW Policy Status in Winter 2009?

- Despite recent progress opposition to Yucca Mt is strong in Congress; DOE is scapegoat
- OCRWM funding cut last three years
- SRG grants significantly reduced this year
- Cooperative efforts curtailed across board: training, regional, TEC, other interactions
- Industry supporters press for n-renaissance
- Alternatives to YMP debated, none appeal

SNF/HLW Policy Status Today

"A Tale That Will Live in Infamy"

Cort Richardson, Project Director

Sources: NARUC, NRC, NWTRB, CRS, DOE, NEI

Historical Context

"*Resolving civilian waste management problems shall not be deferred to future generations"*– President Jimmy Carter 1980

Nuclear Waste Policy Act (NWPA) – 1982

- Federal government responsible for SNF/HLW disposal
- Established program to build national repository
- Site selection process focused on studying various geologic rock bodies located in all regions of the country
- Selection to be based on science not politics
- Generators/owners and those who benefit pay program costs
- DOE was to begin accepting title to waste by 1998

Historical Context - Continued

"*We created a principled process for finding the safest, most sensible place to bury these dangerous wastes; today, just five years later, this great program is in ruins*."-Rep. Mo Udall 1987

NWPA Amendments Act of 1987 et sequitur

- Act amended several times beginning in 1987 to address delays, site selection, interim storage and other issues
- Yucca MT named sole candidate site, second repository killed
- Interim storage or MRS operation tied to YMP progress
- Nuclear Waste Technical Review Board established
- 2002 Yucca MT chosen by Congress over state's objections

Redirection of US Nuclear Waste Policy

- Obama-Biden Campaign called Yucca Mountain not a "suitable site"; Obama pledged to kill the project if elected.
- Is policy change sound science or just sounds like science?
- FY2010 DOE budget request proposed to "terminate the Yucca Mountain program while developing n-waste disposal alternatives"
- Budget continues DOE and NRC funding for Yucca Mountain NRC licensing process but at lower levels than needed.
- Congress addressed policy change during FY2010 budget debate; US Senate President Harry Reid engineers result
- Administration will likely propose to halt licensing in FY2011

Considerations for Congress

- Legal framework (NWPA) unchanged; YM killed by budget cuts
- Parameters for new repository site search
- Potential for indefinite on-site storage
- Implications for new reactor licensing
- Sites for centralized interim storage (existing or new)
- Waste treatment technology options: reprocessing, etc.
- Federal liability under utility SNF disposal contracts
- Generational social contract is defunct (does anyone care?)
- Role of nuclear industry in promulgating climate change policy
- Consistency of nuclear development with economic system

Administrative Policy Change Options

- Withdraw license application
- Find Yucca Mountain unsuitable
- Address waste program funding
- Appointments to policymaking positions
- Conduct broad review of waste management options
- Establish Blue-Ribbon Commission
  - First proposed nine months ago by Senator Harry Reid, NV
  - Charter unknown (is Yucca an option, timeline, stakeholder input, balance?)
  - Membership
  - Disposal strategy
  - Will transportation be dealt with?

Yucca Mt Licensing Process

- NRC Staff Review
- As of October 9, NRC had issued 579 requests for additional information DOE had answered 537 (93%), 64% on time
- So far response quality looks good
- Few additional NRC questions expected
- NRC expects to issue Safety Evaluation Report (SER) in 5 volumes
- Vol. 1 “General Information” in March 2010,
- Vol. 3 “Post-closure Safety” in September 2010
- Vol. 4 “Administrative Requirements” in December 2010

YM Licensing Process - Continued

- Vols. 2 & 5 “Pre-closure Safety & License Specifications” sometime in 2011
- Hearings –
- Four Construction Authorization Boards (CABs) have been formed
- CABs actively addressing 300 admitted contentions from 15 parties
- Process will exceed the 3-4 years mandated by NWPA
- Cut in NRC FY 2010 budget from $56M to $29M further imperils schedule

Baseline Program Projections

- Waste shipments were to begin in 2020
- Commercial on-site storage peaks at 85,000 metric tons in 2023
- All commercial and defense waste emplaced by 2066 (if Yucca Mountain limit is lifted)
- Annual funding would rise to $2 billion during repository construction
- Total cost of $96 billion through 2133
- No alternatives to Yucca Mountain under current law

Consequences of Halting Yucca Mt

- Further delays in baseline program (which envisions on-site storage through 2066)
- Nuclear waste contract repudiation and federal liabilities, current bills to repay
- Nuclear waste fees (S. 861)
- DOE disposal contracts and NRC “waste confidence decision” for new reactors; Commission currently reconsidering
- DOE environmental cleanup penalties at federal nuclear weapons complex sites in WA, ID & SC
- Long-term waste storage risk
- Public confidence in the industry at stake

Alternatives to Yucca Mt

- NWPA names Yucca Mountain as sole candidate site
- Federal central interim storage facility tied to Yucca Mountain progress
- States with possible federal sites would likely object
- Without congressional action, on-site storage and private facilities are main options
- New law would be needed for major redirection
- Institutional model change has been contemplated including:
  - Government corporation or independent agency
  - Private sector organization (needs funding mechanism and take title)
  - Raises regulatory oversight and public participation questions

Extended On-Site Storage

- All options likely to result in much longer on-site storage than baseline program
- Compensate utilities for storage costs
- Federal government takes title to on-site waste and storage facilities?
- Use of Waste Fund for on-site storage?

Federal Central Interim Storage

- Monitored Retrievable Storage is only federal central storage currently authorized
- Oak Ridge selection overturned by Congress in 1987
- MRS now tied to Yucca Mountain progress
- Limited to 15,000 tons
- Storage at Yucca Mountain passed by Congress but vetoed in mid-1990s
- Storage at federal sites proposed since 2005 but not enacted; storage bills pending in 111th Congress (H.R. 2300)

Private Central Storage

- NRC routinely licenses on-site storage facilities (IFSFI's)
- PFS facility in Utah licensed in 2005 by NRC after 9 years
- Operation blocked by administrative rulings and Utah opposition
- Private facility limitations
  - Storage volume
  - Time period
  - Ownership of stored waste
  - State and public engagement

Waste Treatment Technology

- Alternatives to direct disposal of spent fuel
- Spent fuel reprocessing/recycling could reduce waste volume and long-term heat and radioactivity
- Spent fuel could be stored at reprocessing sites
- Congress rejected shipments to foreign reprocessing plants
- Industry studies for Global Nuclear Energy Partnership described alternative concepts for implementation
- Major obstacles still continue:
  - Spent fuel treatment projected to increase costs
  - Concerns about weapons proliferation
  - Implementation to take many decades; requires steady funding and support

Reprocessing Basics

- Banned in U.S. by Ford, Carter
- Current programs in UK, RU, FR, JA
- Present methods separate plutonium
- Economic viability not apparent
- Decades away in US
- Likely siting and transport concerns
- Requires different waste storage technologies
- Still need at least one repository
- New reprocessing technologies needed
- Advanced nuclear plant designs and waste forms needed

Obama Continues Fuel Cycle R&D

- DOE requested $192 million for FY2010
- Program targeted at waste treatment
- Improve waste storage and disposal options
- Promote safe and secure management of nuclear waste
- Minimize proliferation risk of civilian nuclear fuel cycle
- Reduce time-scale for managing waste from hundreds of thousands of years to centuries
- Congress approved $136 million

New Repository Site Search

- Needed eventually if Yucca Mt is permanently rejected and non-repository options are not pursued
- Past site searches have faced strong opposition
- Yucca Mountain selection reduced congressional opposition
- New search would reopen consideration of candidate sites throughout the country revisiting past experience
- Industry has proposed finding voluntary sites in advance but that approach was tried before and failed

Past Site Selection Approaches

- Administrative process under the Atomic Energy Commission
- DOE selection of MRS site
- Site ranking process for first repository
- Screening process for second repository
- Benefits agreement for hosts
- Negotiations for voluntary sites
- Congressional designation of site
- None have yet succeeded in developing high-level waste facilities

Waste Isolation Pilot Project

- Bedded salt site volunteered by Carlsbad, NM, for economic development
- Originally proposed for high-level waste but switched to transuranic waste
- Potential site for orphaned waste forms like BCC and West Valley, NY inventory
- Congress authorized in 1979 but received first waste in 1999
- Has close public scrutiny but successful operation has brought state and regional support
- Local officials favor high-level waste site but state officials currently strongly oppose idea

Spent Nuclear Fuel Transportation

- **Excellent safety record**
- **Packaging is incredibly robust compared to other HazMat**
- **Public anxiety nonetheless**
- **WIPP helped establish cooperative planning and coordination w/ States**
- **Yucca would start no sooner than 2020 and continue 24 yrs**
- **NWPA approach provides emergency response training and funding for stakeholder engagement in the planning process**
- **Successfully balances public info & security**
- **Program strongly endorsed by independent review, e.g. NAS**

Conclusions

- Long-term repository site studies involve scientific uncertainty that may increase public concern
- Difficulty of siting is likely to mean longer on-site storage without Yucca Mountain
- Alternative technologies face significant obstacles
- No legal framework exists for selecting new sites or new disposal policy, passage will be difficult or impossible
- Next steps in policy debate:
  - Blue Ribbon Commission
  - FY2011 budget request
  - Nuclear provisions in Senate greenhouse gas bill; linkage is questionable

NUCLEAR ENERGY ADVISORY COUNCIL
7:00 PM
October 29, 2009
BOARD OF EDUCATION CONFERENCE ROOM
WATERFORD TOWN HALL
15 ROPE FERRY ROAD
WATERFORD, CT
SPECIAL MEETING
AGENDA

Regular Meeting of October 22, 2009 is Cancelled

1. **Call to Order**

2. **Approval of Minutes of July 22, 2009 NEAC meeting**

3. **PROGRAM:**
   a) **Briefing on Yucca Mountain and Spent Nuclear Fuel Issues by Cort Richardson**

4. **Public Comment**

5. **NRC Correspondence Received since past meeting.**

6. **Next Meeting Date and Time**

7. **Adjournment**

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

July 24, 2009

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

SUBJECT: MILLSTONE POWER STATION - NRC INTEGRATED INSPECTION REPORT 05000336/2009003 AND 05000423/2009003

Dear Mr. Heacock:

On June 30, 2009, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Millstone Power Station Unit 2 and Unit 3. The enclosed inspection report documents the inspection results, which were discussed on July 8, 2009, with Mr. A. J. Jordan and other members of your staff.

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

This report documents one NRC-identified finding of very low safety significance (Green). This finding was determined to involve a violation of NRC requirements. Additionally, two licensee-identified violations which were determined to be of very low safety significance are listed in this report. However, because of their very low safety significance and because they are entered into your corrective action program, the NRC is treating these findings as non-cited violations (NCVs) consistent with Section VI.A.1 of the NRC Enforcement Policy. If you contest any NCV in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, 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 Millstone. In addition, if you disagree with the characterization of any finding in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region I, and the NRC Resident Inspector at Millstone. The information you provide will be considered in accordance with Inspection Manual Chapter 0305.

SUMMARY OF FINDINGS

IR 05000336/2009-003, 05000423/2009-003; April 1, 2009 – June 30, 2009; Millstone Power Station Unit 2 and Unit 3; Access Control to Radiological Significant Areas.

The report covered a three-month period of inspection by resident and region-based inspectors. One Green finding, which was a non-cited violation (NCV), was identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process."(SDP) The cross-cutting aspect was determined using IMC 0305, Operating Reactor Assessment Program. Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

Cornerstone: Occupational Radiation Safety

- Green. An NRC-identified finding of very low safety significance (Green) was identified for Dominion's failure to effectively survey, label, and control contaminated tools and equipment. Specifically, Dominion failed to perform adequate surveys to identify a hose fitting having a contact dose rate measurement of 160 mrem per hour as required by 10 CFR 20.1501. Dominion entered this issue into their corrective action program as CR322737.

  This finding was more than minor because it was associated with the program and process attribute of the Radiation Safety cornerstone and affected the cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation. By not surveying and labeling the hose fitting, workers could have received unplanned exposure when not informed of the radiological hazard present. The finding has a cross cutting aspect in the area of work practices, because the licensee did not assure that personnel follow procedures [H.4(b)]. Specifically, procedure RPM 2.4.2, "Radiological Control of Material and Vehicles," was not properly implemented to assure compliance with 10 CFR 20 requirements. (Section 2OS1).

Other Findings

Two violations of very low safety significance, which were identified by the licensee, have been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. These violations and corrective actions are listed in Section 4OA7 of this report

An NRC assessment was performed the week of May 10, 2009, of the licensee's implementation of the Nuclear Energy Institute - Voluntary Ground Water Protection Initiative (NEI 07-07, dated August 2007, ML072610036). The inspectors verified that the licensee had evaluated work practices that could lead to leaks and spills, and has performed an evaluation of systems, structures, and components that contain licensed radioactive material to determine potential leak or spill mechanisms.

The licensee has completed a site characterization of geology and hydrology to determine the ground water gradients and potential pathways for ground water migration from on-site locations to off-site locations. Monitoring wells have been installed at the appropriate locations and an on-site ground water sampling program has been implemented to monitor for potential licensed radioactive leakage into ground water. The ground water monitoring results were being reported in the annual radiological environmental operating report.

The licensee has prepared procedures for the decision making process for potential remediation of leaks and spills, including consideration of the long term decommissioning impacts. Records of leaks and spills are being recorded in the licensee's decommissioning files in accordance with 10 CFR 50.75(g).
The licensee has identified the appropriate local and state officials, and has conducted briefings on the licensee's ground water protection initiative. Protocols have been established for notification to these local and state officials regarding detection of leaks and spills. Aspects of the ground water protection program that have not been fully implemented are being tracked to completion through the licensee's corrective action program (AR06005152).

b. Findings and Observations

No findings of significance were identified.

4OA6 Meetings, including Exit

Exit Meeting Summary

On July 8, 2009, the resident inspectors presented the overall inspection results to Mr. A J. Jordan, and members of his staff. The inspectors confirmed that no proprietary information was provided or examined during the inspection.

4OA7 Licensee Identified Violations

The following violations of very low safety significance (Green) or Severity Level IV were identified by the licensee and are violations of NRC requirements which meet the criteria of the NRC Enforcement Policy for being dispositioned as NCVs.

- 10 CFR 50 Appendix B, Criterion III, "Design Control" states, in part, that measures shall be established to assure that the applicable regulatory requirements and the design basis, for those structures systems, and components, are correctly translated into specifications, drawings, procedures, and instructions. Contrary to this, in April 2007, Dominion removed relief valves 3CHS*RV8510A and B from the charging system alternate minimum recirculation flow path. This modification connected non-

seismic American Society of Mechanical Engineers (ASME) B31.1 piping to safety-related ASME Code Class 2 piping without an appropriate means of isolation. Dominion produced evaluations that demonstrated that the ASME B31.1 piping would not rupture in a seismic event and entered the issue into their corrective action process, CR 333528. This finding is of very low safety significance because the finding is a design or qualification deficiency confirmed not to result in loss of operability or functionality.

- License Condition 2.H for Unit 3 states, in part, that Dominion shall implement and maintain in effect all provisions of the approved fire protection program as described in the FSAR. The Fire Protection Evaluation Report of the FSAR requires Dominion to comply with Branch Technical Position (BTP) CMEB 9.5-1, position C.5.c for alternative or dedicated shutdown capability. The BTP CMEB 9.5-1, position C.5.c(1) requires in part that, "During the postfire shutdown, the reactor coolant system process variables is maintained within those predicted for a loss of normal AC power, and the fission product boundary integrity is not affected." Contrary to this, from initial plant operation until Unit 3 entered cold shutdown conditions on October 12, 2008, implementing the alternative shutdown method while a SIS actuation occurred during certain postulated fires requiring control room evacuation, could result in a water-solid pressurizer and water relief through the pressurizer safety relief valves. The pressurizer safety relief valves are not qualified for water relief and may fail to open. This finding was entered into Dominion's Corrective Action Program (CR 107561). Dominion promptly established compensatory actions consistent with Unit 3's fire protection program requirements on August 29, 2008, when the fire protection program nonconformance was identified. Dominion subsequently completed a plant modification to the safety injection circuits during the Fall 2008 refuel outage and eliminated the potential for a single spurious actuation of the SIS resulting in pressurizer overfill. This finding is more than minor because it is associated with the external factors attribute (fire) of the Initiating Events Cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, a control room fire requiring evacuation while a spurious SIS injection signal occurred could have caused the pressurizer to fill solid and pressurizer safety relief valves to relieve water. The inspectors used Phase 3 of the NRC's IMC 0609, Appendix F, "Fire Protection Significance Determination Process (SDP)," to determine that this finding was of very low safety significance (Green).

Additional details of this issue are discussed in Section 4OA3 of this report.

ATTACHMENT: SUPPLEMENTAL INFORMATION

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

September 1, 2009

Mr. David A. Heacock
President and Chief Nuclear Officer
Dominion Resources
500 Dominion Blvd
Glen Allen, VA 23060-6711

SUBJECT: MID-CYCLE PERFORMANCE REVIEW AND INSPECTION PLAN
MILLSTONE POWER STATION

Dear Mr. Heacock:

On August 11, 2009, the NRC staff completed its performance review of the Millstone Nuclear Generating Station Units 2 and 3. Our technical staff reviewed performance indicators (PIs) for the most recent quarter and inspection results for the period from July 1, 2008 through June 30, 2009. The purpose of this letter is to inform you of our assessment of your safety performance during this period and our plans for future inspections at your facility.

This performance review and enclosed inspection plan do not include security information. A separate letter designated and marked as "Official Use Only – Security Information" will include the security cornerstone review and resultant inspection plan.

Plant performance for the most recent quarter of 2009 at Millstone was within the Licensee Response column of the NRC's Action Matrix, based on all inspection findings being classified as having very low safety significance (Green) and all PIs indicating performance at a level requiring no additional NRC oversight (Green). Therefore, we plan to conduct reactor oversight process (ROP) baseline inspections at your facility.

The enclosed inspection plan details the inspections, less those related to physical protection, scheduled through December 31, 2010. The inspection plan is provided to allow for the resolution of any scheduling conflicts and personnel availability issues well in advance of inspector arrival onsite. Routine resident inspections are not listed due to their ongoing and continuous nature. The inspections in the last nine months of the inspection plan are tentative and may be revised at the end-of-cycle review.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made 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/adams.html (the Public Electronic Reading Room).

As you may know, the NRC is currently evaluating the scope and frequency of all the baseline inspection procedures as part of our biennial review of the ROP. If the results of the evaluation, or any other circumstances, cause us to change the inspection plan, we will contact you to discuss the change as soon as possible. Please contact me at 610-337-5200 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

Ronald R. Bellamy, Ph.D., Chief
Division of Reactor Projects
Projects Branch 6

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

Enclosure: Millstone Inspection/ Activity Plan

cc w/encl:
J. Price, Vice President, Engineering, Dominion Fleet
A. Jordan, Site Vice President, Millstone Station
C. Funderburk, Director, Nuclear Licensing and Operations Support
J. Semancik, Plant Manager, Millstone Station
W. Bartron, Supervisor, Station Licensing
J. Spence, Manager Nuclear Training
L. Cuoco, Senior Counsel
C. Brinkman, Manager, Washington Nuclear Operations
J. Roy, Director of Operations, Massachusetts Municipal Wholesale Electric Company
First Selectmen, Town of Waterford
B. Sheehan, Chair, NEAC
E. Woollacott, Vice-Chair, NEAC
E. Wilds, Jr., Ph.D, Director, State of Connecticut SLO Designee
J. Buckingham, Department of Public Utility Control
C. Meek-Gallagher, Commissioner, Suffolk County, Department of Environment and Energy
V. Minei, P.E., Director, Suffolk County Health Department, Division of Environmental Quality
R. Shadis, New England Coalition Staff
S. Comley, We The People
D. Katz, Citizens Awareness Network (CAN)
R. Bassilakis, Citizens Awareness Network (CAN)
P. Eddy, Electric Division, Department of Public Service, State of New York
P. Tonko, President and CEO, New York State Energy Research and Development Authority
J. Spath, SLO Designee, New York State Energy Research and Development Authority
N. Burton, Esq.

Mills[illegible]
Inspection / A[illegible]vity Plan
07/01/2009 - 12/31/2010

Unit Number	Planned Dates Start	Planned Dates End	Inspection Activity	Title	No. of Staff on Site
			9/14EXAM	**- U3 INITIAL OPERATOR LICENSING EXAMS**	4
3	08/10/2009	08/14/2009	U01758	FY-09 MILLSTONE UNIT 3 INITIAL OPERTOR LICENSING EXAM	
3	09/14/2009	09/25/2009	U01758	FY-09 MILLSTONE UNIT 3 INITIAL OPERTOR LICENSING EXAM	
			7111111B	**- BIENNIAL REQUAL INSP (U3) W/ P/F RESULTS**	3
2, 3	08/31/2009	09/04/2009	IP 7111111B	Licensed Operator Requalification Program	
			EP PROGR	**- EP PROGRAM INSPECTION**	2
2, 3	08/23/2009	08/29/2009	IP 7111402	Alert and Notification System Testing	
2, 3	08/23/2009	08/29/2009	IP 7111403	Emergency Response Organization Augmentation Testing	
2, 3	08/23/2009	08/29/2009	IP 7111404	Emergency Action Level and Emergency Plan Changes	
2, 3	08/23/2009	08/29/2009	IP 71151-EP01	Drill/Exercise Performance	
2, 3	08/23/2009	08/29/2009	IP 71151-EP02	ERO Drill Participation	
2, 3	08/23/2009	08/29/2009	IP 71151-EP03	Alert & Notification System	
2, 3	08/23/2009	12/31/2009	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
			71122.03	**- PUB RAD SAFETY - REMP**	1
2, 3	08/31/2009	09/04/2009	IP 2515/173	Review of the Implementation of the Industry Ground Water Protection Voluntary Initiative	
2, 3	08/31/2009	09/04/2009	IP 7112203	Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control Program	
			7111108P	**- U2 INSERVICE INSPECTION**	1
2	10/13/2009	10/16/2009	IP 7111108P	Inservice Inspection Activities - PWR	
			TI-172	**- U2 RCS DISSIMILAR METAL BUTT WELDS**	1
2	10/13/2009	10/23/2009	IP 2515/172	Reactor Coolant System Dissimiliar Metal Butt Welds	
			7111108P	**- U2 INSERVICE INSPECTION**	1
2	10/19/2009	10/23/2009	IP 7111108P	Inservice Inspection Activities - PWR	
			71121	**- OCC RAD SAFETY**	1
2	11/02/2009	11/06/2009	IP 7112102	ALARA Planning and Controls	
			71152	**- PI&R**	4
2, 3	02/08/2010	02/12/2010	IP 71152B	Identification and Resolution of Problems	
2, 3	02/22/2010	02/26/2010	IP 71152B	Identification and Resolution of Problems	
			71121	**- OCC RAD SAFETY**	1
2, 3	02/08/2010	02/12/2010	IP 7112101	Access Control to Radiologically Significant Areas	
2, 3	02/08/2010	02/12/2010	IP 7112102-7112102R	ALARA - Required	
			7111108P	**- U3 INSERVICE INSPECTION**	1
3	04/12/2010	04/23/2010	IP 7111108P	Inservice Inspection Activities - PWR	
			TI-172	**- U3 TI 2515/172 DISSIMILAR METAL WELDS**	1
3	04/12/2010	04/23/2010	IP 2515/172	Reactor Coolant System Dissimiliar Metal Butt Welds	

This report does not include INPO and OUTAGE activities.
This report shows only on-site and announced inspection procedures.

Millstone
Inspection / Activity Plan
07/01/2009 - 12/31/2010

Unit Number	Planned Dates Start	Planned Dates End	Inspection Activity	Title	No. of Staff on Site
			71121	**- OCC RAD SAEFTY**	1
2, 3	04/19/2010	04/23/2010	IP 7112102-7112102R	ALARA - Required	
			7111107T	**- TRIENNIAL HEAT SINK**	2
2, 3	06/14/2010	06/18/2010	IP 7111107T	Heat Sink Performance	
			TRI FIRE	**- TRIENNIAL FIRE PROTECTION INSPECTION**	3
2, 3	07/19/2010	07/23/2010	IP 7111105T	Fire Protection [Triennial]	
2, 3	08/02/2010	08/06/2010	IP 7111105T	Fire Protection [Triennial]	
			7111111B	**- REQUAL INSP (MS2) WITH P/F RESULTS**	3
2, 3	09/13/2010	09/17/2010	IP 7111111B	Licensed Operator Requalification Program	
			7112202	**- PUB RAD SAFETY - RADWASTE**	1
2, 3	08/30/2010	09/03/2010	IP 7112202	Radioactive Material Processing and Transportation	
			ISFSI	**- ANNUAL SAMPLE - ISFSI INSPECTION**	1
2	10/01/2010	12/31/2010	IP 60855	Operation Of An ISFSI	
			EP EX	**- EP EXERCISE EVALUATION**	4
2, 3	10/25/2010	10/29/2010	IP 7111401	Exercise Evaluation	
2, 3	10/25/2010	10/29/2010	IP 7111404	Emergency Action Level and Emergency Plan Changes	
2, 3	10/25/2010	10/29/2010	IP 71151	Performance Indicator Verification	
			MODS	**- PERMANENT PLANT MODIFICATIONS**	5
2, 3	11/01/2010	11/05/2010	IP 7111117T	Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications	
2, 3	11/15/2010	11/19/2010	IP 7111117T	Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications	
			7112103	**- OCC RAD SAFETY - INSTRUMENTS**	1
2, 3	11/15/2010	11/19/2010	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment	

This report does not include INPO and OUTAGE activities.
This report shows only on-site and announced in[illegible]tion procedures.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

September 10, 2009

EA-09-144

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

SUBJECT: NRC INVESTIGATION REPORT NO. 1-2008-051 MILLSTONE NUCLEAR POWER PLANT

Dear Mr. Heacock:

This letter refers to an investigation initiated by the U. S. Nuclear Regulatory Commission's (NRC) Office of Investigations (OI) on July 3, 2008, at Millstone Nuclear Power Plant (MNPP). The purpose of the investigation was to determine whether, on May 8, 2008, a contract security officer (SO) employed at MNPP failed to complete a required security surveillance, and deliberately falsified the written completion of the required security surveillance in a security log.

As a result of the investigation, the NRC determined that the former SO deliberately documented the timely completion of a routine security tour when in fact, the SO did not complete the tour as documented. This was contrary to 10 CFR 73.70(e), which requires, in part, that all routine security tours and inspections required by 10 CFR Part 73 be documented. 10 CFR 73.55(c)(4) includes the requirement that all exterior areas within the protected area shall be periodically checked to detect the presence of unauthorized persons.

The deliberate failure of the SO to accurately document his security tour caused MNPP to be in violation of 10 CFR 50.9, which requires, in part, that documentation required to be maintained by the licensee be complete and accurate in all material respects. Since the actions of the SO were deliberate, he violated the NRC's deliberate misconduct rule (10 CFR 50.5), which prohibits employees from engaging in deliberate misconduct that would cause a licensee to be in violation of any NRC requirements.

Because you are responsible for the actions of your employees, and because the violation involved willful aspects, the violation was evaluated under the NRC traditional enforcement process as set forth in Section IV.A.4 of the NRC Enforcement Policy. The NRC concluded that the failure to perform one required security tour, with no evidence of compromise, would be considered a minor violation, absent willfulness.

The NRC considered the violation to have been more significant than minor, because it involved willfulness, and therefore, the NRC has classified the violation at Severity Level (SL) IV, in accordance with the Enforcement Policy. The current NRC Enforcement Policy is included on the NRC's website at http://www.nrc.gov; select About NRC, Regulation, Enforcement, then, Enforcement Policy.

The NRC considered issuance of a Notice of Violation for this issue. However, after considering the factors set forth in Section VI.A.1 of the NRC Enforcement Policy, the NRC determined that a non-cited violation (NCV) is appropriate in this case because: (1) the violation was licensee-identified; (2) the violation involved the acts of an individual who was not considered to be a licensee official within the context of the NRC enforcement policy; (3) the violation appeared to be an isolated action of the employee without management involvement and was not caused by a lack of management oversight; (4) you revoked the SO's site access and considered significant remedial action to the SO prior to his resignation; and, (5) you placed the action into the corrective action program and held briefings with other SOs such that it demonstrated the seriousness of the violation to other employees and contractors.

A response to this letter is not required. However, if you contest this NCV or its significance, you should provide a response within 30 days of the date of this letter, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN.: Document Control Desk, Washington, D.C. 20555-0001, with copies to the Regional Administrator, Region I; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001; and the NRC Resident Inspector at the Millstone Nuclear Power Plant.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and your response, if you choose to provide one, will be available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS) accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html. To the extent possible, your response, if you choose to provide one, should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction.

Should you have any questions regarding this letter, please feel free to contact Ronald Bellamy at 610-337-5200.

Sincerely,

James W. Clifford, Acting Director
Division of Reactor Projects

October 16, 2009

Mr. David A. Heacock
President and Chief Nuclear Officer
Dominion Nuclear Connecticut, Inc.
Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, VA 23060-6711

SUBJECT: MILLSTONE POWER STATION, UNIT NOS. 1, 2, 3 AND INDEPENDENT SPENT FUEL STORAGE INSTALLATION – REQUEST FOR ADDITIONAL INFORMATION REGARDING PROPOSED CHANGE TO THE MILLSTONE POWER STATION EMERGENCY PLAN (TAC NO. ME1396 AND ME1397)

Dear Mr. Heacock:

By letter dated May 28, 2009 (Agencywide Document Access and Management System Accession No. ML091520618), Dominion Nuclear Connecticut, Inc. (DNC or the licensee) submitted proposed changes to the Millstone Power Station, Unit Nos. 1, 2 and 3 and the Independent Spent Fuel Storage Installation (ISFSI) emergency plan. The May 28, 2009, letter requested to replace the Emergency Medical Team with a licensee first aid team. DNC has determined, in accordance with Title 10 of the *Code of Federal Regulations* Section 50.54(q), that the change will decrease the effectiveness of the approved emergency plan and therefore needs prior Nuclear Regulatory Commission (NRC) approval. To complete its review, the NRC staff requests the enclosed additional information.

The draft questions were sent to Mr. William Bartron, of your staff, to ensure that the questions were understandable, the regulatory basis for the questions was clear, and to determine if the information was previously docketed. On October 13, 2009, Mr. Bartron, of your staff, agreed that you would provide a response by November 16, 2009.

If you have any questions regarding this matter, please contact me at 301-415-1603.

Sincerely,
/ra/
Carleen J. Sanders, Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-245, 50-336, 50-423,
and 72-47

Enclosure:
As stated

cc w/encl: Distribution via Listserv

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Office	LPL1-2/PM	LPL1-2/LA	FSME/PM	NSIR/BC	LPL1-2/BC
Name	CSanders	ABaxter	JHickman	KWilliams	HChernoff
Date	10/14/2009	10/14/2009	10/15/2009	10/15/2009	10/16/09

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REQUEST FOR ADDITIONAL INFORMATION (RAI)

PROPOSED EMERGENCY PLAN CHANGE

DOMINION NUCLEAR CONNECTICUT, INC.

MILLSTONE POWER STATION, UNIT NOS. 1, 2, 3 AND INDEPENDENT SPENT FUEL STORAGE INSTALLATION

DOCKET NOS. 50-245, 50-336, 50-423, AND 72-47

By letter dated May 28, 2009 (Agencywide Document Access and Management System Accession No. ML091520618), Dominion Nuclear Connecticut, Inc. (DNC or the licensee) submitted proposed changes to the Millstone Power Station, Unit Nos. 1, 2 and 3 and the Independent Spent Fuel Storage Installation (ISFSI) emergency plan. The May 28, 2009, letter requested to replace the Emergency Medical Team with a licensee first aid team. To complete its review, the Nuclear Regulatory Commission (NRC) staff requests the enclosed additional information:

RAI NO.	SECTION	QUESTION
1	BACKGROUND	Page 1 of DNC's submittal states, "[t]he Fire Brigade was reorganized last year from being a separate entity to being an Operations Department function." Please provide a listing of all Operations Personnel on-shift (as provided in Table 5-1 of the Emergency Plan, "Station Emergency Response Organization") who perform the tasks listed below, in a tabular form and identify by position (i.e., Unit 2 Reactor Operator-1, Unit 3 Plant Equipment Operator (PEO)-2, etc): 1) Fire Brigade 2) First Aid 3) Communicator 4) Electrical Maintenance and I&C functions 5) Mechanical Maintenance/Radwaste Operator Please identify and justify any potential conflicts of duties.
2	GENERAL	What is the distance and estimated time for travel to the site for emergency medical response personnel?

Enclosure

RAI NO.	SECTION	QUESTION
3	DISCUSSION OF CHANGE	Page 5 of DNC's submittal includes proposed changes to Table 5-1 of the Emergency Plan. In the proposed "Major Functional Area: First Aid," your submittal states, "Resp Qual: NO." Please justify why a First Aid Team member does not need to be respirator qualified. Specifically explain how the First Aid Team would attend to an injured person in a hazardous atmosphere, either radiological or industrial.
4	CURRENT STATUS	Page 7 of DNC's submittal states, "[t]herefore, approximately 3 to 4 first aid trained PEOs per unit are available each shift to provide first aid capability on a 24-hour basis." Table 5-1 of the Emergency Plan states that 2 PEO's are on shift. Please explain this discrepancy.
5	CURRENT STATUS	Page 7 of DNC's submittal states, "Electrical Maintenance personnel are also provided this training [Medic First Aid training program – "BasicPlus – CPR, AED, and First Aid for Adults"]." How does this effect 24/7/365 on-shift staffing.
6	GENERAL	Table 5-1 of the Emergency Plan provides the following: Firefighting – Fire Brigade/EMT, and for Search and Rescue Operations – Security Personnel/Station Personnel. 1) Who is currently filling the two positions of Rescue Operations and First Aid as identified in NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," Table B-1, "Minimum Staffing Requirements for NRC Licensees For Nuclear Power Plant Emergencies?" 2) If Security Personnel are identified for Search and Rescue Operations, are they members of the Armed Response Team as identified in 10 CFR 73.55(h)(3)? 3) If other station personnel are identified for Search and Rescue Operations, who are they?

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

October 22, 2009

The Honorable Joseph I. Lieberman
United States Senate
Attention: Krystn Ledoux
One Constitution Plaza, Seventh Floor
Hartford, CT 06103

Dear Senator Lieberman:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your August 17, 2009, letter in which you requested information sought by your constituent, Ms. Nancy Burton, regarding scheduled releases of radionuclides by Dominion Nuclear Connecticut, Inc. at Millstone Power Station (Millstone) on July 8 and July 26, 2009.

The information Ms. Burton referenced in her email is required by Connecticut state law. Connecticut state law requires licensees, including Dominion Nuclear Connecticut, Inc., to provide information on routine and continuous releases on the licensee's Web site. Connecticut state law specifically requires, "dates, times, and fissile materials" of the release, be included on the Web site.

Based on Dominion Nuclear Connecticut, Inc.'s release estimates, available on their public Web site, the 2009 releases at Millstone are calculated to be a fraction (less than 1 percent) of the NRC's dose limits for members of the public. As a result, there is no indication that the 2009 radioactive releases are a danger to public health.

Both the U.S. Environmental Protection Agency and the NRC set requirements on the release of radioactive material. The NRC has reporting requirements if these limits are exceeded. Because the July 8 and July 26, 2009, scheduled releases did not exceed allowable levels, Dominion Nuclear Connecticut, Inc. is not required to submit reports on those releases; however, NRC regulations do require the company to report the aggregate of all releases in an annual report. This annual report contains the quantity of curies, by radionuculide, for each type of release (i.e., mixed batch, mixed continuous, elevated batch) for each quarter. The releases for 2008 are available in a report dated April 30, 2009, (Agencywide Document Access and Management System Accession No. ML0913302400). Information on the releases discussed in your letter will be included in the 2009 annual report, which Dominion Nuclear Connecticut, Inc. must submit on or before May 1, 2010.

I want to assure you that the continued safety and security of Millstone are of the utmost importance to the NRC. The NRC maintains three resident inspectors at the Millstone site to provide continuous oversight of day-to-day operations. The NRC also performs inspections every 2 years on gaseous and liquid effluent processing systems to ensure that planned radiological discharges are properly controlled, monitored, and evaluated.

The NRC continues to monitor and inspect Millstone's effluent release program to ensure compliance with NRC requirements.

Please feel free to contact us if you have any questions.

Sincerely,

/RA/

R. W. Borchardt
Executive Director
for Operations

Docket Nos: 50-336 and 50-423

cc: Listserv

DISTRIBUTION: G20090534/LTR-09-0459/EDATS: SECY-2009-0422
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ADAMS Package No.: ML092750620 Incoming: ML092720892 Response: ML092750625
*by email

OFFICE	LPL1-2/PM	LPL1-2/LA	LPL1-2/BC	IHFB	OGC	OPA*
NAME	CSanders	ABaxter	HChernoff (REnnis for)	UShoop w/ comments	LSubin NLO	EBrenner
DATE	10/05/09	10/05/09	10/14/09	10/08/09	10/14/09	10/08/09*
OFFICE	**RI***	**OCA**	**Tech Ed***	**DORL/DD**	**NRR/OD**	**EDO**
NAME	DJackson w/ comments	EDacus w/ comments	CHsu w/ comments	JGitter	ELeeds	RBorchardt
DATE	10/09/09	10/08/09	10/07/09	10/13/09	10/16/09	10/22/09

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NUCLEAR ENERGY ADVISORY COUNCIL
7:00 PM
December 10, 2009
LOUISE APPLEBY ROOM
WATERFORD TOWN HALL
WATERFORD, CT
REGULAR MEETING
MINUTES

Members Present

Mr. Bill Sheehan, Chair
Ms. Marge DeBold
Mr. Robert Klancko
Mr. Denny Hicks
Mr. John Markowicz
Mr. Thomas Nebel
Ms. Pearl Rathbun
Rep. Kevin Ryan
Mr. James Sherrard

- **Call to Order of Meeting**

NEAC Chair Sheehan called the meeting to order at 7:01 PM in the Waterford Town Hall Louise Appleby Room in Waterford, Connecticut.

- **Approval of Minutes of October 29, 209 NEAC meeting.**
  Motion to accept made and seconded. All in favor with Mr. Robert Klancko abstaining.

- **Public Comment**
  No members of the public were present

- **NRC Correspondence Received since past meeting.**

Chairman Sheehan provided each member with a copy of the significant correspondence received from the U.S. Nuclear Regulatory Commission since the last NEAC meeting and reviewed this information with NEAC members (See Attached).

- **Discussion of CY 2009 Annual Report**

  Draft CY 2009 Report was reviewed and a number of corrections were made to the report.

- **Approval of the 2009 Annual Report**

Motion was made and seconded to approve the CY2009 Annual Report as corrected. Motion was approved unanimously.

- **Approval of Regular Meeting Schedule for CY 2010**

  Chairman Sheehan proposed that NEAC meet only three times in CY2010: Thursday April 22, Thursday September 23, and Thursday December 9. Special meetings would be at the call of the Chair. Motion was made and seconded to approve this schedule and passed unanimously.

- **Programs for CY 2010**

  List of possible programs was discussed and it was agreed to add: Update on the Low Level Radioactive Waste Compact and Tour and Briefing on Three Rivers Community College Nuclear Operator Training Program and facilities.

- **Next Meeting Date and Time**

The next meeting date has been set for Thursday, April 22, 2010. The tentative agenda for the meeting is the annual briefing by the Nuclear Regulatory Commission on Performance of Dominion Nuclear Connecticut.

- **Adjournment**

Motion was made and seconded to adjourn; no objections; unanimous vote in favor; meeting adjourned at 7:13 PM.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

November 5, 2009

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

SUBJECT: MILLSTONE POWER STATION - NRC INTEGRATED INSPECTION REPORT 05000336/2009004 AND 05000423/2009004

Dear Mr. Heacock:

On September 30, 2009, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Millstone Power Station Unit 2 and Unit 3. The enclosed inspection report documents the inspection results, which were discussed on October 7, 2009, with you and other members of your staff.

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

This report documents two self-revealing findings of very low safety significance (Green). One of these findings was determined to involve a violation of NRC requirements. Additionally, two licensee-identified violations determined to be of very low safety significance are listed in this report. However, because of the very low safety significance and because they are entered into your corrective action program, the NRC is treating these findings as non-cited violations (NCV) consistent with Section VI.A.1 of the NRC Enforcement Policy. If you contest any NCV in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, 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 Millstone. In addition, if you disagree with the characterization of any finding in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region I, and the NRC Resident Inspector at Millstone. The information you provide will be considered in accordance with Inspection Manual Chapter 0305.

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

Sincerely,

Ronald R. Bellamy

Ronald R. Bellamy, Ph.D., Chief
Projects Branch 6
Division of Reactor Projects

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

Enclosure: Inspection Report No. 05000336/2009004 and 05000423/2009004
w/ Attachment: Supplemental Information

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

Sincerely,
/RA/
Ronald R. Bellamy, Ph.D., Chief
Projects Branch 6
Division of Reactor Projects

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REGION I

Docket No.:	50-336, 50-423
License No.:	DPR-65, NPF-49
Report No.:	05000336/2009004 and 05000423/2009004
Licensee:	Dominion Nuclear Connecticut, Inc.
Facility:	Millstone Power Station, Units 2 and 3
Location:	P. O. Box 128 Waterford, CT 06385
Dates:	July 1, 2009 through September 30, 2009
Inspectors:	S. Shaffer, Senior Resident Inspector, Division of Reactor Projects (DRP) J. Krafty, Resident Inspector, DRP B. Haagensen, Resident Inspector, DRP T. Moslak, Reactor Inspector, DRS J. Tifft, Reactor Inspector, DRS T. O'Hara, Reactor Inspector, DRS C. Crisden, Reactor Inspector, DRS D. Johnson, Reactor Inspector, DRS
Approved by:	Ronald R. Bellamy, Ph.D., Chief Projects Branch 6 Division of Reactor Projects

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SUMMARY OF FINDINGS

IR 05000336/2009004, 05000423/2009004; July 1, 2009 – September 30, 2009; Millstone Power Station Unit 2 and Unit 3; Refueling and Other Outage Activities and Follow-up of Events.

The report covered a three-month period of inspection by resident and region-based inspectors. Two Green findings, one of which was a non-cited violation (NCV), were identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process." Findings for which the significance determination process (SDP) does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

Cornerstone: Mitigating Systems

- Green. A violation of 10 CFR 50, Appendix B, Criteria V dispositioned as an NCV was identified for Dominion's failure to provide adequate operating procedures that were appropriate for the circumstances to operate the Unit 2 charging pumps during reactor shutdown. Specifically, on July 9, 2009, the operators were required to raise pressurizer level while drawing a bubble in the pressurizer in preparation for transitioning from mode 5 to mode 4. Dominion started the "B" positive displacement charging pump without first opening the charging header isolation valves and damaged two relief valves in the charging line. Neither of the operating procedures in use for this evolution required the charging header isolation valves to be opened.

  This event was more than minor because if left uncorrected, the performance deficiency had a potential to lead to a more significant safety concern. This finding is associated with the equipment performance attribute of the mitigating systems cornerstone. The finding has a cross-cutting aspect in the area of human performance, maintaining complete accurate and up-to-date procedures, because Dominion did not provide an operating procedure that was appropriate for accomplishing the task under the circumstances [H.2.c].

Cornerstone: Initiating Events

- Green. A self-revealing finding of very low safety significance (Green) was identified for Dominion's failure to provide timely and effective corrective actions for known degraded conditions on the Unit 2 VR-11 and VR-21 120-volt AC non-vital instrument power supplies. Specifically, VR-11 and VR-21 were known to cycle on and off repeatedly whenever an electrical disturbance on the grid affected the input supply voltages from their respective regulating transformers. The degraded condition on the instrument buses had not been corrected despite numerous prior opportunities and ultimately led to a reactor trip on July 3, 2009. Dominion entered this issue into their corrective action program (CR340569 and CR340579). Interim corrective actions included the installation of dedicated uninterruptable power supplies (UPS) for the Electro-Hydraulic Control (EHC) system and feedwater level control system loads prior to reactor startup. Final

corrective actions to install a larger UPS to power the VR-11 and VR-21 DC buses are under engineering evaluation.

This finding is more than minor because it was associated with the Equipment Performance attribute of the Initiating Events cornerstone and affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. Dominion did not implement effective interim corrective actions, nor did they take timely final corrective actions to prevent recurrence of the power cycling of the VR-11 and VR-21 instrument buses in time to prevent a reactor trip on July 3, 2009. The inspectors performed a Phase 1 screening, in accordance with IMC 0609, "Significance Determination Process," and determined that the finding is of very low safety significance (Green) because it did not contribute to the likelihood that mitigation equipment or functions would not be available. The finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program because Dominion did not take appropriate corrective actions to address safety issues and adverse trends in a timely manner, commensurate with their safety significance and complexity [P.1.d].

Other Findings

Two violations of very low safety significance, which were identified by the licensee, have been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. These violations and corrective actions are listed in Section 4OA7 of this report.

REPORT DETAILS

Summary of Plant Status

Units 2 & 3 operated at or near 100 percent power throughout the inspection period with the following exception. Unit 2 tripped from 100 % power on July 3, 2009, and returned to 100% power on July 26, 2009.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

.1 Seasonal Site Inspection

a. Inspection Scope (1 Sample)

The inspectors reviewed the site's readiness for hurricane season. The inspectors reviewed applicable procedures and performed a partial walkdown of the Unit 2 service water (SW) system, walkdowns of the Unit 2 intake structure, fire pump house, flood doors, and reviewed preventive maintenance on selected hurricane and tornado doors to determine the condition of the installed equipment designed to protect the site from the effects of a hurricane and verify that the required emergency equipment for hurricanes and flooding was available. The inspectors reviewed the Unit 2 and Unit 3 Updated Final Safety Analysis Report (UFSAR) and Technical Specifications (TS) and compared the analysis with procedure requirements to ascertain that procedures were consistent with the UFSAR. Documents reviewed during the inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

.2 Impending Adverse Weather Conditions Inspection

a. Inspection Scope (1 Sample)

The inspectors reviewed the station's readiness for potential adverse weather conditions on August 21, 2009, due to the approach of Hurricane Bill. The most likely adverse weather conditions were high winds and high surf, flooding was not expected from this storm. The inspectors walked down both intake structures and the external areas inside the fence. The inspectors also reviewed Dominion's adverse weather preparation procedure and interviewed the shift managers to ensure that Dominion's preparations were consistent with Dominion's design requirements and risk analysis assumptions. Documents reviewed during the inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04)

.1 Partial System Walkdowns

a. Inspection Scope (2 Samples)

The inspectors performed two partial system walkdowns during this inspection period. The inspectors reviewed the documents listed in the Attachment to determine the correct system alignment. The inspectors performed a walkdown of each system to determine if the critical portions of the selected systems were correctly aligned, in accordance with the procedures, and to identify any discrepancies that may have had an effect on operability. The walkdowns included selected switch and valve position checks, and verification of electrical power to critical components. Finally, the inspectors evaluated other elements, such as material condition, housekeeping, and component labeling. The following systems were reviewed based on their risk significance for the given plant configuration:

Unit 2

- On August 7, 2009, the "B" Emergency Diesel Generator (EDG) when the "A" EDG was out-of-service (OOS) for surveillance testing; and

Unit 3

- Waterford Domestic Water cross tied to Millstone Fire Protection Loop while all fire pumps were isolated for maintenance.

b. Findings

No findings of significance were identified.

.2 Complete System Walkdown (71111.04S)

a. Inspection Scope (1 Sample)

The inspectors completed a detailed review of the alignment and condition of the Unit 2 High Pressure Safety Injection (HPSI) system. The inspectors performed a walkdown of the system to determine whether critical portions, such as breakers and switches, were aligned in accordance with procedures and to identify any discrepancies that may have had an adverse effect on operability. The inspectors also reviewed the system health reports, Condition Reports (CRs), and maintenance rule evaluations to determine whether equipment problems were being identified and appropriately resolved. Documents reviewed during the inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05Q)

a. Inspection Scope (3 Samples)

The inspectors performed walkdowns of three fire protection areas. The inspectors reviewed Dominion's fire protection program to determine the required fire protection design features, fire area boundaries, and combustible loading requirements for the selected areas. The inspectors walked down these areas to assess Dominion's control of transient combustible material and ignition sources. In addition, the inspectors evaluated the material condition and operational status of fire detection and suppression capabilities, fire barriers, and any related compensatory measures. The inspectors compared the existing conditions of the areas to the fire protection program requirements to determine if all program requirements were being met. Documents reviewed during the inspection are listed in the Attachment. The fire protection areas reviewed included:

Unit 3

- Turbine Building Basement Floor Area El. 7'-0" and 14'-6", Fire Area TB-2, Zone A;
- Main Steam Valve Enclosure El. 12'-6" through 70'-0", Fire Area MSV-1; and
- Turbine Building Mezzanine El. 38'-6", Fire Area TB-2, Zone C.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11)

.1 Resident Inspector Quarterly Review (71111.11Q)

a. Inspection Scope (2 Samples)

The inspectors observed simulator-based licensed operator requalification training for Unit 2 on July 31, 2009, and for Unit 3 on July 28, 2009. The inspectors evaluated crew performance in the areas of clarity and formality of communications, ability to take timely actions, prioritization, interpretation, and verification of alarms, procedure use, control board manipulations, oversight and direction from supervisors, and command and control. Crew performance in these areas was compared to Dominion management expectations and guidelines as presented in OP-MP-100-1000, "Millstone Operations Guidance and Reference Document." The inspectors compared simulator configurations with actual control board configurations. The inspectors also observed Dominion evaluators discuss identified weaknesses with the crew and/or individual crew members, as appropriate. Documents reviewed during the inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12Q)

a. Inspection Scope (1 Sample)

The inspectors reviewed one sample of Dominion's evaluation of degraded conditions, involving the Unit 3 auxiliary building ventilation system for maintenance effectiveness during this inspection period. The inspectors reviewed Dominion's implementation of the "Maintenance Rule," 10 CFR 50.65. The inspectors reviewed Dominion's ability to identify and address common cause failures, the applicable maintenance rule scoping document for the auxiliary building ventilation system, the current classification of this system in accordance with 10 CFR 50.65 (a)(1) or (a)(2), and the adequacy of the performance criteria and goals established for the system, as appropriate. The inspectors also reviewed recent system health reports, CRs, apparent cause determinations, functional failure determinations, operating logs, and discussed system performance with the responsible system engineer. Documents reviewed during the inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

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

a. Inspection Scope (7 Samples)

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

Unit 2

- June 26 through July 1, 2009, high iron concentration detected in the containment atmosphere and a containment entry at power;
- July 3 through July 6, 2009, troubleshooting following the reactor trip on July 3, 2009;
- Shutdown risk assessment (yellow) during Reactor Coolant System (RCS) drain down into reduced inventory operations on July 10, 2009;

- July 18 through July 21, 2009, troubleshooting efforts to determine the cause of Emergency Building Filtration System (EBFS) Test failures;
- Online risk assessment (yellow) during "B" EDG Overhaul and "C" HPSI pump surveillance testing on August 21, 2009;
- July 29, 2009 loss of all Unit 2 instrument air compressors; and

Unit 3

- September 11, 2009, the inspectors followed Dominion's efforts in response to valve 3HDL-V-271 ejecting its bonnet.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope (5 Samples)

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

Unit 2

- CR341606, "SW leaking around bolt on X-53B EDG Lube Oil Heat Exchanger";
- CR342191, "Non-QA Caulk used on Enclosure Building";
- OD000319, Prompt Operability Determination for the "A" RCP RBCCW Cooling Coil Weld, dated August 20, 2009;
- CR345114, "A" Reactor Coolant Pump (RCP) RBCCW Cooling Coil Weld and Base Metal Repair Requires RT," this CR's focus on the ASME code and 10CFR50.55a compliance issue; and
- ODMI, installation of jumper for CEA-61 position indication and CMI.

b. Findings

No findings of significance were identified.

1R18 Plant Modifications (71111.18)

a. Inspection Scope (1 Sample)

To assess the adequacy of the modifications, the inspectors performed walkdowns of selected plant systems and components, interviewed plant staff, and reviewed

applicable documents, including procedures, calculations, modification packages, engineering evaluations, drawings, corrective action program documents, the UFSAR, and TS.

For Unit 2 temporary modification, "Installation of UPS for VR-11/21 FWCS", the inspectors determined whether selected attributes (component safety classification, energy requirements supplied by supporting systems, seismic qualification, instrument setpoints, uncertainty calculations, electrical coordination, electrical loads analysis, and equipment environmental qualification) were consistent with the design and licensing bases. Design assumptions were reviewed to verify that they were technically appropriate and consistent with the UFSAR, and the 10 CFR 50.59 screening was reviewed. The inspectors verified that procedures, calculations, and the UFSAR were properly updated with revised design information. In addition, the inspectors verified that the as-built configuration was accurately reflected in the design documentation and that post-modification testing was adequate to ensure the structures, systems, and components would function properly. Documents reviewed during the inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope (6 Samples)

The inspectors reviewed post-maintenance test (PMT) activities to determine whether the PMT adequately demonstrated that the safety-related function of the equipment was satisfied, given the scope of the work specified and that operability of the system was restored. In addition, the inspectors evaluated the applicable test acceptance criteria to evaluate consistency with the associated design and licensing bases, as well as TS requirements. The inspectors also evaluated whether conditions adverse to quality were entered into the corrective action program for resolution. Documents reviewed during the inspection are listed in the Attachment. The following maintenance activities and PMTs were evaluated:

Unit 2

- "A" RCP vapor seal leakage/seal replacement;
- "A" RCP seal cooler weld repair;
- "A" EDG overhaul;
- EBFS filter replacement;
- Charging pump pulsation dampener replacement; and

Unit 3

- DRPI system control rod "P6" controller card repairs.

b. Findings

No findings of significance were identified.

1R20 Refueling and Other Outage Activities (71111.20)

.1 Millstone Unit 2 Unplanned Outage

a. Inspection Scope (1 Sample)

Dominion began an unplanned outage on Unit 2 on July 3, 2009, when the reactor tripped from a grid disturbance. The outage was completed on July 25, 2009. The inspectors evaluated the outage plan and outage activities to determine if Dominion had considered risk, developed risk reduction and plant configuration control methods, considered mitigation strategies in the event of loss of safety functions, and adhered to licensee and TS requirements. The inspectors observed portions of the shutdown, cooldown, heat up, and start up processes. Additionally, the inspectors performed an initial containment Mode 3 walk down to evaluate the as-found condition of containment. The inspectors also performed a final Mode 3 walk down to ensure that no loose material or debris, which could be transported to the containment sump, were present. The inspectors reviewed CRs to determine if conditions adverse to quality were entered for resolution. Documents reviewed for the inspection are listed in the Attachment. Some of the specific activities the inspectors observed and performed included:

- Reactor shutdown and cooldown;
- Reactor water level drain down to the reactor flange;
- Midloop and reduced inventory operations;
- Containment as-found walk down;
- Review of outage risk plan;
- Yellow Risk – "A" RCP seal placement;
- RCS vacuum fill;
- Containment as-left walk down;
- Reactor Heat up;
- Reactor Startup;
- Reactor power ascension; and
- Unit 2 generator synchronization to the grid.

b. Findings

Introduction: The inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings for Dominion's failure to ensure that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings. The operators started the "B" positive displacement charging pump while the header discharge valves were closed, causing two relief valves to lift and leading to the subsequent damage and leakage from both valves.

Description: On July 9, 2009, Millstone Unit 2 was shutdown in Mode 5, operators were drawing a bubble in the pressurizer, preparing to enter Mode 4, when the operators started the "B" positive displacement charging pump with both discharge header valves, 2-CH-518 and 2-CH-519, isolated. This action lifted the charging pump relief valve, 2-CH-325, and the regenerative heat exchanger thermal relief valve, 2-CH-986, rupturing the bellows assembly for valve 2-CH-986, and creating a leak from the charging header into the auxiliary building drains system.

Dominion did not provide the operators with written procedures that were appropriate for accomplishing the task under the circumstances. The operators were drawing a bubble in the pressurizer using OP-2301G, "Vacuum Fill of the Reactor Coolant system (ICCE)" at step 4.5.10. This step directs starting a charging pump to maintain pressurizer level between 35% and 45%. The operators transitioned to OP-2304E, "Charging System" and started the "B" charging pump using step 4.2, "Normal Charging Pump Operation" without first opening 2-CH-518 and 2-CH-519, which had been previously closed upon completion of the vacuum fill in step 4.3.36 of OP-2301G. The rapid spike in charging header pressure caused 2-CH-325 to lift and fail to reseat, and 2-CH-986 to lift and rupture the relief valve bellows assembly. Neither procedure in use directed the operators to first open 2-CH-518 and 2-CH-519 as either a step in the procedure or as a prerequisite to or precaution for using the procedure.

Analysis: This finding was associated with the procedure quality attribute of the mitigating systems cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that mitigate plant transients and reactor accidents. This event was more than minor because if left uncorrected, the performance deficiency had a potential to lead to a more significant safety concern. The inspectors performed a Phase 1 screening, in accordance with IMC 0609, "Significance Determination Process," and determined that the finding is of very low safety significance (Green) because it did not contribute to the likelihood that mitigation equipment or functions would not be available.

The finding has a cross-cutting aspect in the area of human performance, maintaining complete, accurate and up-to-date procedures, because Dominion did not provide an operating procedure that was appropriate for accomplishing the task under the circumstances (H.2.b).

Enforcement: 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedure, Drawings" states, in part, that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings. Contrary to the above, on July 9, 2009, Dominion did not provide adequate procedural direction to accomplish the task of charging to the pressurizer while conducting a vacuum fill of the RCS. As a result, the charging discharge header thermal relief valve lifted and damaged the bellows assembly, resulting in a leak from the charging header into the auxiliary building drains system. Because this violation is of very low safety significance (Green) and Dominion entered this issue into their corrective action system (CR-340852), this violation is being treated as a NCV consistent with Section VI.A.1 of the NRC Enforcement Policy. **(NCV 05000336/2009004-02 Inadequate Procedures Caused a Leak from the Charging Header into the Auxiliary Building Drain System)**

1R22 Surveillance Testing (71111.22)

a. Inspection Scope (6 Samples)

The inspectors reviewed surveillance activities to determine whether the testing adequately demonstrated equipment operational readiness and the ability to perform the intended safety-related function. The inspectors attended pre-job briefings, reviewed selected prerequisites and precautions to determine if they were met, and observed the tests to determine whether they were performed in accordance with the procedural steps. Additionally, the inspectors reviewed the applicable test acceptance criteria to evaluate consistency with associated design bases, licensing bases, and TS requirements and that the applicable acceptance criteria were satisfied. The inspectors also evaluated whether conditions adverse to quality were entered into the corrective action program for resolution. Documents reviewed during the inspection are listed in the Attachment. The following surveillance activities were evaluated:

Unit 2

- OP-2301E, "Draining the RCS (ICCE)," Rev 024-02;
- SP-2609E, "Enclosure Building Negative Pressure Test," Rev 008-01;
- SP-2610BO, "TDAFW Tests, Operating", Rev 000-08;

Unit 3

- SP 3616A.1-003, "Stroke Time Test of SG Atmospheric Relief Valves, Relief Bypass Valves, and Relief Isolation Valves," Rev. 008-01;
- C SP 600.6-001, "Electric Fire Pump M7-8 Monthly Operability Demonstration," Rev. 003-01; and
- SP 3443D21-001, "Protection Set Cabinet IV Operational Test," Rev. 018-07.

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness (EP)

1EP2 Alert and Notification System (ANS) Evaluation (71114.02)

a. Inspection Scope (1 Sample)

An onsite review was performed to assess the maintenance and testing of Dominion's current ANS. During the inspection, the inspectors interviewed the EP staff who is responsible for overseeing the ANS testing and maintenance of the system. The inspectors reviewed ANS procedures and several versions of the ANS design report to ensure Dominion's compliance with design report commitments for system maintenance and testing. CRs pertaining to the ANS were reviewed for causes, trends, and corrective actions. The inspectors interviewed the EP staff responsible for the new ANS, which is scheduled to be placed in service on October 1, 2009. The inspection was performed in accordance with NRC Inspection Procedure 71114, Attachment 2.

Planning Standard, 10 CFR 50.47(b)(5) and the related requirements of 10 CFR 50, Appendix E, were used as reference criteria.

b. Findings

No findings of significance were identified.

1EP3 Emergency Response Organization (ERO) Staffing and Augmentation System (71114.03)

a. Inspection Scope (1 Sample)

The inspectors performed a review of Dominion's ERO augmentation staffing requirements and the process for notifying and augmenting the ERO. This review was performed to ensure the readiness of key Dominion staff to respond to an emergency event and to ensure Dominion's ability to activate their emergency facilities in a timely manner. The inspectors reviewed the Dominion ERO roster, training records, and CRs related to the ERO staffing augmentation system. The inspection was performed in accordance with NRC Inspection Procedure 71114, Attachment 3. Planning Standard, 10 CFR 50.47(b)(2) and related requirements of 10 CFR 50, Appendix E, were used as reference criteria.

b. Findings

No findings of significance were identified.

1EP4 Emergency Action Level (EAL) and Emergency Plan Changes (71114.04)

a. Inspection Scope (1 Sample)

Since the last NRC inspection of this program area, Dominion implemented various changes to different sections of their Emergency Plan. Dominion had determined that, in accordance with 10 CFR 50.54(q), any change made to the plan, and its lower-tier implementing procedures, had not resulted in any decrease in effectiveness of the plan, and that the revised plan continued to meet the standards in 10 CFR 50.47(b) and the requirements of 10 CFR 50 Appendix E. The inspectors reviewed EAL changes and emergency plan changes, including the changes to lower-tier emergency plan implementing procedures, to evaluate for any potential decreases in effectiveness of the emergency plan. However, this review by the inspectors was not documented in an NRC Safety Evaluation Report and does not constitute formal NRC approval of the changes. These changes remain subject to future NRC inspection in their entirety. The inspection was performed in accordance with NRC Inspection Procedure 71114, Attachment 4. The requirements in 10 CFR 50.54(q) were used as reference criteria.

b. Findings

No findings of significance were identified.

1EP5 Correction of Emergency Preparedness Weaknesses (71114.05)

a. Inspection Scope (1 Sample)

The inspectors reviewed a sampling of self-assessment procedures and reports to assess Dominion's ability to evaluate their EP performance and programs. The inspectors reviewed a sampling of CRs from September 2007 through August 2009, initiated by Dominion from drills and audits. Additionally, the inspectors reviewed two event reports for Unusual Events declared on April 6, 2008 and May 24, 2008 at Unit 2, 10 CFR 50.54(t) audits, and a self-assessment report. This inspection was performed in accordance with NRC Inspection Procedure 71114, Attachment 5, Planning Standard, 10 CFR 50.47(b)(14) and the related requirements of 10 CFR 50, Appendix E, were used as reference criteria.

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation (71114.06)

.1 Combined Functional Drill

a. Inspection Scope (1 Sample)

The inspectors observed the conduct of a Unit 3 licensed operator training emergency planning drill on August 26, 2009. The inspectors observed the operating crew performance at the simulator and the emergency response organization performance at the emergency operations facility. The inspectors evaluated the classification, notification, and protective action recommendations for accuracy and timeliness. Additionally, the inspectors assessed the ability of Dominion's evaluators to adequately address operator performance deficiencies identified during the exercise.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Public Radiation Safety

2PS3 Radiological Environmental Monitoring Program (REMP) and Radioactive Material Control Program (71122.03)

a. Inspection Scope (10 Samples)

During the period August 31, 2009 through September 3, 2009, the inspectors performed the following activities to verify that Dominion implemented the radiological environmental monitoring program (REMP), consistent with the Site TS and the Off-Site Dose Calculation Manual (ODCM) to validate that radioactive effluent releases met the design objectives of Appendix I to 10 CFR 50.

Additionally, the inspectors verified that radiological surveys and controls were adequate to prevent the inadvertent release of radioactive material into the public domain. Implementation of these controls was reviewed against the criteria contained in 10 CFR 20 & 50, relevant TS, and with Dominion's procedures.

This inspection activity represents completion of ten samples relative to this inspection area.

REMP Inspections:

(1) The inspectors reviewed the 2008 Annual Radiological Environmental Operating Report and the 2008 REMP Land Use Census Report to verify that the environmental monitoring programs were implemented as required by the ODCM (Revision 26).

(2) The inspectors walked down eight of eight air sampling stations (Nos. 1-I, 2-I, 3-I, 4-I, 10-I, 11-I, 15-C, 27-I), two of five aquatic flora sampling stations (Nos. 33-X, 90-C), two of four oyster harvesting stations (Nos. 34-X, 88-X), two of five seawater sampling locations (32-I, 37-C), and twelve of forty thermo luminescent dosimeter (TLD) monitoring stations listed in the Attachment. The inspectors determined if sampling was performed as described in the ODCM related procedures, and evaluated the sampling equipment material condition.

(3) As part of the walk down, the inspectors observed the technician collect and prepare for analysis air particulate/iodine filter samples, oyster, and water samples, and verified that environmental sampling was representative of the release pathways as specified in the ODCM, and that sampling techniques were in accordance with procedures.

(4) Based on direct observation and review of records, the inspectors verified that the meteorological instrumentation was operable, calibrated, and maintained in accordance with the guidance contained in the FSAR, NRC Safety Guide 23, and with Dominion's procedures. The inspectors verified that the meteorological data readout and recording instruments in the control room and at the tower were operable for wind direction, wind speed, temperature, and delta temperature. The inspectors confirmed that redundant instrumentation was available and that the annualized recovery rate for meteorological data was greater that 90%.

(5) The inspectors reviewed the calibration/maintenance records for eight air samplers and verified that the air flow calibration equipment was currently calibrated.

(6) The inspectors reviewed CRs and Nuclear Oversight field observation reports and audits, relevant to the REMP requirements, to evaluate the threshold for which issues are entered into the corrective action program, the adequacy of subsequent evaluations, and the effectiveness of the resolution. The inspectors also reviewed monthly RETS/ODCM effluent occurrence reports to evaluate the adequacy and timeliness of performance indicator information.

(7) The inspectors reviewed the results of Dominion's quarterly laboratory cross-check program to verify the accuracy of Dominion's environmental air filter, charcoal cartridge, water, biota, and milk sample analyses.

(8) The inspectors reviewed changes made by Dominion to the ODCM as a result of changes to the land use census or sampler station modifications since the last inspection. The inspectors also reviewed technical justifications for any change in sampling location or frequency and verified that Dominion performed the reviews required to ensure that the changes did not affect its ability to monitor the radiological condition of the environment.

Unrestricted Release of Material from the Radiologically Controlled Area (RCA)

(9) The inspectors reviewed the contamination control procedures and observed several locations in Unit 2 and Unit 3, where personnel monitored for potentially contaminated material leaving the RCA for unrestricted use.

(10) The inspectors verified that the radiation monitoring instrumentation (SAM-9, SAM-11, Frisker) was appropriate for the radiation types potentially present and was calibrated with appropriate radiation sources. The inspectors reviewed Dominion's criteria for the survey and release of potentially contaminated material; verified that there was guidance on how to respond to an alarm which indicates the presence of contamination; and reviewed instrument alarm set points to ensure that radiation detection sensitivities are consistent with the NRC guidance contained in IE Circular 81-07 and IE Information Notice 85-92 for surface contamination and Health Physics Position (HPPOS) 221 for volumetrically contaminated material. The inspectors also reviewed Dominion's procedures and records to verify that the radiation detection instrumentation was used at its typical sensitivity level based on appropriate counting parameters, and verified that Dominion has not established a release limit by altering the instruments sensitivity through such methods as raising the energy discrimination level or locating the instrument in a high radiation background area.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES [OA]

4OA1 Performance Indicator (PI) Verification (71151)

.1 Cornerstone: Mitigating Systems

a. Inspection Scope (10 Samples)

The inspectors reviewed Dominion submittals for the PIs listed below to verify the accuracy of the data reported during that period. The PI definitions and guidance contained in Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Indicator Guideline," Revision 5, were used to verify the basis for reporting each data element. The inspectors reviewed portions of the operations logs, monthly operating reports, and Licensee Event Reports (LER) and discussed the methods for compiling and reporting the PIs with cognizant licensing and engineering personnel. Documents reviewed during the inspection are listed in the Attachment.

Unit 2

- MSPI Auxiliary Feedwater System;
- MSPI Emergency AC Power System;
- MSPI Residual Heat Removal System;
- MSPI Support Cooling Water System;
- MSPI High Pressure Injection Systems;

Unit 3

- MSPI High Pressure Injection Systems;
- MSPI Auxiliary Feedwater System;
- MSPI Emergency AC Power System;
- MSPI Residual Heat Removal System; and
- MSPI Support Cooling Water System.

b. Findings

No findings of significance were identified.

.2 Cornerstone: Emergency Preparedness (EP)

a. Inspection Scope (3 Samples)

The inspectors reviewed data for the Dominion EP PIs, which are: (1) Drill and Exercise Performance (DEP); (2) Emergency Response Organization (ERO) Drill Participation; and, (3) Alert and Notification System (ANS) Reliability. The inspectors reviewed the PI data and its supporting documentation from the third quarter of 2008 through the second quarter of 2009 to verify the accuracy of the reported data. The review of these PIs was performed in accordance with NRC Inspection Procedure 71151, using the acceptance criteria documented in NEI 99-02, "Regulatory Assessment Performance Indicator Guidelines," Revision 5.

Additionally, the inspectors performed NRC Temporary Instruction (TI) 2515/175, ensured the completeness of Dominion's completed Attachment 1 from the TI, and forwarded the data to NRC Headquarters.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152)

.1 Review of Items Entered into the Corrective Action Program

a. Inspection Scope (1 Sample)

As required by Inspection Procedure 71152, "Identification and Resolution of Problems," and in order to help identify repetitive equipment failures or specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into Dominion's corrective action program. This was accomplished by reviewing the description of each new CR and attending daily management review committee meetings. Documents reviewed during the inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

.2 Annual Sample- Emergency Lighting Units (ELUs) High Failure Rate

a. Inspection Scope (1 Sample)

The inspectors reviewed Dominion's evaluation and corrective actions associated with the continued adverse failures of emergency lighting units. This trend was the subject of NCV 05000423/2007007-04 and has continued. The inspectors reviewed related CRs and associated actions against the requirements of Dominion's corrective action program to ensure that the full extent of the issues were identified, appropriate evaluations were performed, and appropriate corrective actions were specified and prioritized. The inspectors interviewed relevant station personnel, and reviewed applicable station procedures and surveillance test results. The inspectors reviewed the latest revision of Dominion's maintenance rule (a)(1) action plan and associated actions to ensure the extent of the failure information was incorporated and actions were prioritized and scheduled as appropriate. Documents reviewed during the inspection are listed in the Attachment.

b. Findings and Observations

No findings of significance were identified. The inspectors determined that Dominion's proposed corrective actions were reasonable with respect to the ELU issues. Dominion appropriately determined the causes of the failures and initiated actions that would address the causes. Dominion's implementation of the periodic replacement of station ELU batteries has been completed. The inspectors noted that Dominion's plan to move twelve ELUs with high failure rates out of their harsh environments has been deferred several times. This plan is an important part of reducing ELU failures and this should have been reflected in the prioritization of the corrective actions. Currently, the ELUs are scheduled to be moved in fiscal year (FY) 2010. During the review, the inspectors reviewed operating procedures OP-2344B and OP-3344B. These procedures disable

the ELUs when their power supply is isolated. The inspectors noted that the procedures did not include declaring these ELUs inoperable or implementing compensatory measures while the ELUs are disabled. Dominion has entered this into their corrective action program as CR 346470.

.3 Annual Sample- Unit 2, "A" Reactor Coolant Pump Seal Cooler Weld

a. Inspection Scope (1 Sample)

The inspectors interviewed several Dominion employees and reviewed a selection of documents associated with the repair of a Reactor Coolant System pressure boundary leak in the piping to the Millstone Unit 2, "A" Reactor Coolant Pump (RCP) seal cooler. The inspection was performed in accordance with Inspection Procedure 71152, Corrective Action Program Inspection and the related Sections of the ASME Code. This issue is being treated as an Unresolved Item (URI) pending completion of the NRC's inspection and assessment of Dominion's performance relative to this repair activity.

b. Unresolved Item

Introduction: During a recent Problem Identification and Resolution Inspection, the inspectors reviewed Dominion's conformance with the specifications of ASME Code Section XI and Section III relative to repair of a pressure boundary leak condition that affected the "A" RCP seal cooler piping, a ASME Class I component.

Description: Dominion identified a weld leak affecting the Millstone Unit 2, "A" RCP seal cooler piping on July 13, 2009, an ASME Class I component. The affected piping is 1.5" OD and is part of the reactor coolant pressure boundary. The repair was initiated in accordance with ASME Section XI, which directed Dominion to ASME Section III for weld repair completion and post repair non-destructive examination. On July 17, 2009, Dominion completed the repair welding, and subsequently returned the plant to power on July 25, 2009. Aspects concerning Dominion's performance with regard to this repair activity remain to be reviewed and assessed to ascertain conformance with the applicable ASME Code and NRC regulatory requirements. **URI 05000336/2009004-03.**

4OA3 Follow-up of Events (71153)

.1 (Closed) LER 05000336/2009001-00, Unit 2 Reactor Trip due to High Pressurizer Pressure

a. On July 3, 2009, Unit 2 tripped while at 100% power when a lightening strike caused a grid disturbance, the effects of which propagated into the on site electrical distribution system. Non-vital 120 volt AC instrument busses VR-11 and VR-21 cycled repeatedly which momentarily interrupted power to the Electro-Hydraulic Control (EHC) system. This caused the turbine stop valves to close without generating a turbine trip from the electrical transient. The reactor tripped on high RCS pressure after a five second delay from the RCS pressure increase (partial load rejection without a turbine trip signal). The pressurizer PORV lifted at 2397 psig as designed and the steam generator code safety valves also lifted momentarily. Following the reactor and turbine trip, off-site power

automatically swapped from the Unit 2 normal station service transformer (NSST) to the reserve station service transformer (RSST) as designed. Operations entered emergency operating procedure (EOP) 2525, "Standard Post Trip Actions." Operators also took action in accordance with station procedures to manually trip both SG feed pumps and closed the feed water block valves for both SGs due to main feed regulating valve lockup caused by the electrical transient on VR-11 and VR-21. Following the standard post trip actions and event diagnostic chart review, the operating crew transitioned to EOP 2526, "Reactor Trip Recovery." The operating crew determined that all safety functions were met.

The inspectors responded to the control room and evaluated the adequacy of operator actions in accordance with approved procedures and TS implications. The inspectors performed walk downs and interviewed personnel to verify that a lighting strike on-site had not occurred and the expected credited off-site power supplies were operable. Documents reviewed during the inspection are listed in the Attachment.

b. Findings

Introduction: The inspectors identified a Green finding for Dominion's failure to provide timely and effective corrective actions for known degraded conditions on the VR-11 and VR-21 120-volt AC non-vital instrument power supplies. Specifically, VR-11 and VR-21 were known to cycle on and off repeatedly whenever an electrical disturbance on the grid affected the input supply voltages from their respective regulating transformers. The degraded condition on the instrument buses had not been corrected despite numerous prior opportunities and ultimately led to a reactor trip on July 3, 2009. This degraded electrical system response had been previously observed during the Unit 2 reactor trip on May 22, 2008, and had caused a similar plant response, as well as during several other more recent electrical grid disturbances.

Description: On July 3, 2009, Millstone Unit 2 was operating at 100% power when lightening struck an offsite power line approximately 10 miles from the plant, causing an offsite grid disturbance. At 13:04, the grid disturbance propagated through the high voltage distribution system and caused internal voltage fluctuations on 120-volt AC non-vital instrument power supplies, VR-11 and VR-21, causing the turbine stop valves to close without an accompanying turbine trip signal. This load rejection caused the reactor to trip five seconds later from a valid high RCS pressure signal. The electrical transient on VR-11 and VR-21 also caused the main feedwater regulating valves to lock up in the 100% power position, which subsequently caused both SG levels to rapidly rise beyond the high level alarm setpoints. The operators responded by tripping the turbine-driven main feedwater pumps prior to exceeding 100% level in the SGs.

The Dominion Event Review Team (ERT) concluded that the probable cause of the July 3 event was the degraded cycling response of VR-11 and VR-21 to an offsite grid disturbance. This issue had most recently been identified on May 22, 2008, when an offsite grid disturbance caused VR-11 and VR-21 to exhibit a similar degraded system response. The basic problem with VR-11 and VR-21 had been identified and entered into the corrective action process as early as 2001. The long-term corrective actions for this adverse condition, to power VR-11 and VR-21 from a large uninterruptable power supply (UPS) to prevent the rapid cycling between the normal and alternate power

supplies, UAC1 and UAC3 for VR-11, and UAC2 and UAC4 for VR-21 has still not been implemented. This corrective action had been deferred to June 2010, six months beyond the next refueling outage, 2RFO19. Interim corrective actions, including disabling the normal supply regulated transformer supplies UAC1 and UAC2 to prevent the automatic transfer switches RS-1 and RS-2 (on VR-11 and VR-21) from rapidly cycling between the normal and alternate regulated transformers as well as temporarily removing some important loads from VR-11 and VR-21, did not prevent the July 3 reactor trip.

Previously, grid disturbances on June 28, 2008, February 2, 2009, and April 30, 2009, continued to challenge the Unit 2 operators' ability to maintain positive plant control because of degraded system responses from the cycling of VR-11 and VR-21. These actions included the main feedwater regulating valves lockup, isolation of the letdown system, unexpected steam dump response, and automatic startup of all three charging pumps. In each case, the previous interim corrective actions were ineffective in preventing VR-11 and VR-21 from rapidly cycling and disrupting plant system equipment alignments. Despite the ineffectiveness of the short term corrective actions, Dominion did not schedule the long-term corrective action to install a UPS as the normal power source for VR-11 and VR-21 by the next refueling outage.

Analysis: This finding is more than minor because it was associated with the Equipment Performance attribute of the Initiating Events cornerstone and affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. Dominion did not effectively implement interim corrective actions, nor did Dominion take timely long-term corrective actions to prevent recurrence of the power cycling of the VR-11 and VR-21 instrument buses in time to prevent a reactor trip on July 3, 2009. The inspectors performed a Phase 1 screening, in accordance with IMC 0609, "Significance Determination Process," and determined that the finding is of very low safety significance (Green) because it did not contribute to the likelihood that mitigation equipment or functions would not be available.

The finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program because Dominion did not take appropriate corrective actions to address safety issues and adverse trends in a timely manner, commensurate with their safety significance and complexity (P.1.d).

Enforcement: No violation of regulatory requirements occurred, because the electro-hydraulic control (EHC) and the main feedwater regulating valve control systems are not safety-related. Because this finding does not involve a violation of regulatory requirements and has very low safety significance, it is identified as a finding. Dominion took immediate action to provide dedicated UPS power supplies to the EHC system (DCN DM2-00-0141-09), and to main feedwater regulating valve control system (DCN DM2-00-0143-09), and entered this issue into their corrective action system (CR340569 and CR340579). **(FIN 05000336/2009004-01 Inadequate and Untimely Corrective Actions Causes Reactor Trip)**

4OA5 Other Activities

.1 Quarterly Resident Inspector Observations of Security Personnel and Activities

a. Inspection Scope (1 Sample)

During the inspection period, the inspectors performed the following observations of security force personnel and activities to ensure they were consistent with Dominion security procedures and regulatory requirements relating to nuclear plant security. These observations took place during both normal and off-normal plant working hours. Specifically, the inspectors:

- Observed operations within the central and secondary alarm stations;
- Observed security officers on compensatory posts and in ready rooms;
- Observed security force shift turnover activities; and
- Observed security officers conducting access control activities.

b. Findings

No findings of significance were identified.

.2 Independent Spent Fuel Storage Installation (ISFSI) Monitoring Controls (60855.1)

a. Inspection Scope (1 Sample)

The inspectors reviewed routine operations and monitoring of the ISFSI. The inspectors walked down the ISFSI with a Senior Radiation Protection Technician and a Plant Equipment Operator. The inspectors performed independent dose rate measurements of the storage modules, and confirmed module temperatures were within the required limits. The inspectors also reviewed plant equipment operator logs for ISFSI surveillances and environmental (ISFSI) dosimetry records. Radiological control activities for the ISFSI were evaluated against 10 CFR 20, ISFSI Technical Specifications, and Dominion's procedures.

b. Findings

No findings of significance were identified.

4OA6 Meetings, including Exit

Exit Meeting Summary

On October 7, 2009, the resident inspectors presented the overall inspection results to you and members of your staff. The inspectors confirmed that no proprietary information was provided or examined during the inspection.

4OA7 Licensee Identified Violations

The following violations of very low safety significance (1 Green and 1 Severity Level IV) were identified by Dominion and are violations of NRC requirements which meet the

criteria of Section VI of the NRC Enforcement Policy, NUREG-1600, for being dispositioned as NCVs.

- 10 CFR Part 50.54(q), "Conditions of licenses," states in part, "A holder of a nuclear power reactor operating license under this part, or a combined license under part 52 of this chapter after the Commission makes the finding under 52.103(g) of this chapter, shall follow and maintain in effect emergency plans which meet the standards in 50.47(b) and the requirements in Appendix E of this part." Contrary to this requirement, on several occasions in December 2008 and January 2009, the Emergency Medical Technician (EMT) position was not staffed as required by the Emergency Plan. Prior to 2007, the Millstone Power Station fire brigade was an independent organization responsible for meeting the qualified EMT Emergency Plan requirement. In 2007, the site fire brigade became part of the Operations Department and Plant Equipment Operators (PEO) became responsible for meeting the EMT requirement. This change to the organizational structure impacted the Emergency Plan in that some of the PEOs did not maintain their EMT qualifications. This resulted in the EMT position not being staffed on multiple occasions in December 2008 and January 2009. The Dominion Emergency Plan requires the EMT position to be staffed on a continuous basis. This finding is of very low safety significance based on a SDP Phase 1 screen utilizing IMC 0609, Appendix B, "Emergency Preparedness Significance Determination Process." Upon identifying the issue, Dominion entered the issue into their corrective action program as CR 07-12258 to capture the non-compliance with the Emergency Plan. The finding is licensee-identified because it was discovered by Dominion during a self evaluation in 2007 (CR-07-12258).

- 10 CFR Part 50.54(q), "Conditions of licenses," states in part, "The nuclear power reactor licensee may make changes to these plans without Commission approval only if the changes do not decrease the effectiveness of the plans and the plans, as changed, continue to meet the standards of 50.47(b) and the requirements of Appendix E to this part." Contrary to this requirement, Dominion's replacement of the dedicated site fire brigade with designated personnel with collateral duties was not evaluated for a possible decrease in effectiveness of the Emergency Plan. This change impacted the Emergency Plan in that it facilitated the EMT position not being staffed on multiple occasions. Therefore, Dominion should have performed a 50.54(q) screening to evaluate the potential impact to the Emergency Plan. The finding is licensee-identified because it was discovered by Dominion during an audit in 2008. Upon identifying the issue, Dominion entered the issue into their corrective action program as CR 08-00691. The deficiency was evaluated using the traditional enforcement process since the failure to screen the organizational change could adversely impact the NRCs ability to carry out its regulatory mission. Because this finding is of very low safety significance and has been entered into the corrective action program this finding is being treated as a Severity Level IV Non-Cited Violation of 10 CFR 50.54(q).

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel

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

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

05000336/2009004-01	FIN Inadequate and Untimely Corrective Actions Causes Reactor Trip
05000336/2009004-02	NCV Inadequate and Procedures Caused a Leak from the Charging Header into the Auxiliary Building Drain System

Closed

05000336/2009001-00	LER Unit 2 Reactor Trip due to High Pressurizer Pressure

Opened

05000336/2009004-03	URI Unit 2 "A" Reactor Coolant Pump Seal Cooler Weld

BASELINE INSPECTION PROCEDURES PERFORMED

71122.03 Radiological Environmental Monitoring Program and Radioactive Material Control Program 2PS3

06855.1 Operation of an Independent Spent Fuel Storage Installation 4OA

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

AOP 2560, "Storms, High Winds and High Tides," Rev. 010-04
AOP 3569, "Severe Weather Conditions," Rev. 016-00
Building Structures System Health Report, 1st Quarter 2009
Fire Doors & Barriers System Health Report, 1st Quarter 2009
C OP 200.6, "Storms and Other Hazardous Phenomena (Preparation and Recovery)," Rev. 002-01
MP 2721C, "Protection and Restoration of SW Pump Motor during a PMH," Rev. 007-02
MRULE-RTF-07-017, "Run-to-Failure Evaluation for Structures: Doors and Barriers 3900," Rev. 0
SP 2665, "Building Flood Gate Inspections," Rev. 005-02
CR324762
CR343918
CR343511
53M30703488
53M30704265
53M30704358
53M30708926
53M30805046
5310225078, Perform Quarterly Run of the Volvo DG
C OP 200.6, "Storms and Other Hazardous Phenomena (Preparation and Recovery)," Rev. 002-01

Section 1R04: Equipment Alignment

SFP 31, "Fire Water System Back-up Supply Plan," Rev. 004-01
25203-26011 Sheet 1, "Fire Protection," Rev. 50
25212-26970 Sheet 1, "Fire Protection System," Rev. 6
High Pressure Safety Injection (HPSI) System Health Report, 2nd Quarter 2009
Maintenance Rule Functional Failure Evaluation CR-08-02045, CR-08-03534, CR-08-03535
M2-EV-08-0027, "Generic Letter 2008-01 Response Millstone Unit 2," Rev. 0
OP 2308-001, "HPSI System Valve Alignment, Facility 1," Rev. 000-00
OP 2308-002, "HPSI System Valve Alignment, Facility 2," Rev. 000-01
OP 2346C-004, "B" DG Service Water Valve Alignment, Rev. 000-03
OP 2346C-005, "B" DG Starting Air Valve Alignment, Rev. 0000-00
OP 2346C-006, "B" DG Jacket Water Valve Alignment, Rev. 000-01
OP 2346C-007, "B" DG Lube Oil Valve Alignment, Rev. 000-01
CR-08-02045
CR-08-05137
CR-08-07885
CR113720

Section 1R05: Fire Protection

Millstone Unit 2 Fire Hazards Analysis, Rev. 9
Millstone Unit 3 Firefighting Strategies, April 2002
Millstone Unit 3 Fire Protection Evaluation Report

Section 1R11: Licensed Operator Requalification Program

Evaluated Simulator Exam (ES09501B)
LORTSE59, "MP3 LOIT/LORT Operational Exam #59," Rev. 1

Section 1R12: Maintenance Effectiveness

Auxiliary Building Ventilation System Health Reports 1st Quarter 2008 and 2009
Auxiliary Building Ventilation Unavailability July 2007 to July 2009
DM3-00-0314-08, "Abandon Temporary Fan Doors M33HVR-FN18A/B Replace with Suitable Portable Fans"
Maintenance Rule Evaluations for the following, CR-07-09177, CR-07-10163, CR-07-11424
OP 3314J, "Auxiliary Building Emergency Ventilation and Exhaust," Rev. 005-05
T-01657S3, "MP3 Auxiliary building Loss of Ventilation Analysis – CCP, CHS and CCE Equipment Areas," Rev. 1
25212-ER-07-0082, "Temperature Rise of MP3 CCP pumps are subsequent to loss of normal ventilation"
CR-05-01699
CR-07-10163
MRE007027
MRE007109
MRE007111
MRE010748
53M30409799
53M30409800

Section 1R13: Maintenance Risk Assessments and Emergent Work Control

AOP-2563, "Loss of Instrument Air," Rev. 009-06
OP-2264, "Conduct of Outages," Rev. 012-00
OP-2264, Attachment 2, "Shutdown Safety Checklist," Rev. 012-00 completed 7/8/2009
MP-20-OM-FAP02.1, "Shutdown Risk Management"
Drawing 25203-26009 MP2 Station Air System
Drawing 25213-26807 MP2 Instrument Air System
Drawing 2503-26938-sheet 1 - MP3 Station Air System
MP-CHEM-09-018, Bases for MP2 Containment Air Calculations" dated 7/30/09
EOOS Operator Risk Report of Record for 8/21/2009
EOOS Operator Risk Report – "what if" scenario for "B" EDG and "C" HPSI header valve
FSAR Section 6.7.1, "Enclosure Building Filtration System", Rev. 22.2
CR339580, "Detectable Iron on Unit 2 containment air particulate filter" dated 6/26/2009
CR340010, "Track from Robotic Crawler left on -22' of Unit 2 CTMT" dated 7/1/09
CR3400030, "D" Fan Cooler leakage noted during containment entry" dated 7/1/09
CR3400035, "Results of containment inspection on -3' and -22' elevation" dated 7/1/09
CR342867, "D" IAC tripped shortly after being placed in lead" dated 7/29/09
CR342871, "E" IAC tripped while starting from standby" dated 7/29/09
CR342874, "Entered AOP-2563 due to Instrument Air Header Pressure Degrading" dated 7/29/09
CR343031, "Corroded pipe at the discharge of IA Compressor F3D" dated 7/29/09
CR343120, "Field Change issued for AOP 2563, "Loss of Instrument Air" dated 7/31/09
CR344801, "EBFS charcoal laboratory results do not meet acceptance criteria" dated 8/13/09
CR344961, "F Instrument Air Compressor Trip shortly after placing in standby" dated 8/15/09
CR344972, ""F" Instrument Air Compressor After-cooler cooling fins clogged" dated 8/15/09
CR345019, "Enclosure Building D/P went below -0.4 inH2O for Several Seconds during EB Purge" dated 8/16/09

Section 1R15: Operability Evaluations

OD000319 A" RCP RBCCW Cooling Coil Weld is NON-Compliant with ASME Code" dated 8/20/09
OP-AA-101 ODMI, "Installation of Temporary Modification 2-09-001 for CEA-61" dated 9/14/2009
SP-2619A-001, "Control Room Operations Daily Surveillance Mode 1 and 2"
FSRC Summary memo for OD000319 dated 8/20/2009
ASME Letter to Dominion Subject: "ASME BPVC Section XI, IWA-442.2.2(e) and IWA-4520, 1998 edition through 2007 Edition with 2009 Addenda" dated 8/17/2009
CRED-342312, "Use of Non-QA Dow Corning Sealant Materials for Cosmetic Enclosure Building Repairs" dated 12/21/05
CRED-342445, "Use of Non-QA Dow Corning Sealant Materials for Closure Sealant Associated with Enclosure Building gate #11 and Skin Restoration" dated 12/21/05
CR342191, "Non-Q Caulk used on Enclosure Building" dated 7/22/09
CR342312, "Request Use as is CRED fir Non-QA Caulk used for Enclosure Building" dated 7/22/09
CR342329, "Caulk applied to bottom lap (interior) of EAST Encl Bldg Blowout Panel" dated 7/22/09
CR345114, ""A" RCP RBCCW Cooling Coil Weld and Base Metal Repair Requires RT" dated 8/17/09

Section 1R18: Plant Modifications

AWO53102265869
DCN DM2-00-0143-09, "Temporary Design Change to Repower VR-11 Feedwater Regulating Valve Circuitry from UPS" dated 7/7/2009
Drawing M2104-09-98 87000445, Rev. 1
ETAP-040142E, "MP2 Electrical Distribution System Analysis"
PA-79-129-01027E, "MP2 EDG Loading Calculation"

Section 1R19: Post Maintenance Testing

OP-2304E, "Charging Pumps", Rev. 016-05
SPROC OPS-09-2-01, "Post-Modification Test of Unit 2 Charging Pumps after Pulsation Dampener Installation (ICCE)", Rev. 000-00
Dominion Nuclear Connecticut Memo OT2-09-29 SUBJ: "C" Charging Pump Solid Dampener DM2-00-0221-08" dated 7/28/2009
OD MP2-002-06, "Charging Pump Nitrogen-filled Pulsation Dampeners"
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CR304829, "Boric acid "as left" on M2P40Am visual inspection results" dated 7/9/09
CR341079, "MP2 P40A RCP as-found motor pump alignment out of spec" dated 7/11/09
CR341123, ""A" RCP oil filter dp high alarm locked in" dated 7/11/09
CR341137, ""A"&"B" RCP Operated in Seal Wear Region Greater than 8 hours" dated 7/12/09
CR341171, "Several "A" RCP alarms received with stable conditions" dated 7/12/09
CR3411193, ""A" RCP RBCCW Cooling Coil Leak discovered during NOP/NOT walkdown" dated 7/13/09
CR341911, "RCE Team for "A" RCP Seal Leakage Identified Deficiencies Requiring Resolution" dated 7/19/09
AWO 5310226694, "Repair Cracked Weld on P40A Seal Cooler IAW CRED CR341193" dated 7/17/2009
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ER-AA-NDE-PT-301, "Solvent Removable Liquid Penetrant Data Sheet" dated 7/17/2009
Millstone Unit 2, "A" Reactor Coolant Pump Seal Cooler Flaw Characterization
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CR343956, "Diesel Surveillance needs enhancement to ensure meeting Tech Spec Criteria", dated 8/6/2009
CR344273, "MRule Unavailability Time for "A" EDG during the "A" SW Pump Motor Bump Check", dated 8/9/2009
CR344801, "EBFS charcoal laboratory results do not meet acceptance criteria" dated 8/13/09
CR344924, "Fluid is leaking out of PI-7985A Gauge", dated 8/14/2009
CR344982, "Unnecessary Unavailability Time is accruing during the EDG Pre-lube and Air Roll", dated 8/16 /2009
CR345019, "Enclosure Building D/P went below -0.4 inH2O for Several Seconds during EB Purge" dated 8/16/09

CR345127, "EDG Unavailability Gap to Excellence", dated 8/17/2009
CR345329, "'B" Diesel Generator Local Gauge Board Reset Pushbutton has high resistance" dated 8/19/2009
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CR345457, "Inadequate tagging boundary for "B" EDG jacket water heat exchanger work" dated 8/19/2009
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OP-2202, "Reactor Startup ICCE", Rev. 021-06 dated 7/12/09
RCE000981, "A" Reactor Coolant Pump Seal Leakage"
CR340316, "CEA A-47 drop time observed during July 3, 2009 reactor trip" dated 7/3/09
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CR340430, "S/G #1 (X25) secondary manway gasket is leaking (North side)" dated 7/6/09
CR340432, "S/G #2 (X26) secondary manway gasket is leaking (South side)" dated 7/6/09
CR340468, "Unidentified material identified in -22 ft containment trough" dated 7/6/09
CR340852, "Charging pump started with no discharge path aligned" dated 7/9/09
CR340932, "Performed Troubleshooting on waste gas system pressure trend" dated 7/9/09
CR340936, "Vacuum Fill of RCS Increased RCS Boron Concentration by ~660 ppm" dated 7/9/09
CR341172, "OPS experienced trouble with "C" RCP seal during heatup" dated 7/11/09
CR341173, "RCP seal bleed off pressure controller PIC-215 controls erratically" dated 7/12/09
CR341194, "During NOP/NOT walkdown, discovered Quench Tank relief leaking by the seat" dated 7/13/09
CR341911, "RCE Team for "A" RCP Seal Leakage Identified Deficiencies Requiring Resolution" dated 7/19/09
CR341970, "Higher than expected dose rates encountered on clean waste temp filters" dated 7/20/09

CR342071, "Too much water processed to the "A" CWMT" dated 7/21/09
CR342305, "An increase in config control events has occurred during the forced outage" dated 7/22/09
CR342376, "Controller for 2-AC-11 goes into saturation when Main Exhaust System is shutdown" dated 7/23/09

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OP-2301E, "Draining the RCS (ICCE)," Rev. 024-02
OP-2310D, "SDC Operation for Reduced Inventory," Rev. 000-03
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CR342312, "Request Use as is CRED fir Non-QA Caulk used for Enclosure Building" dated 7/22/09
CR342327, "Review of Enclosure Building Damage - Sequence of Events" dated 7/22/09
CR342329, "Caulk applied to bottom lap (interior) of EAST Encl Bldg Blowout Panel" dated 7/22/09
CR342367, "2-AC-11, Purge Exhaust Filter Outlet Damper fails to OPEN" dated 7/22/09
CR342414, "SP2609E Requires enhancement" dated 7/23/09
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CR342430, "EBFS boundary walkdown observations" dated 7/23/09
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MP-PROC-EP-MP-26-EPI-EPMP, Millstone Power Station Emergency Plan, Rev. 38
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MP-26-EPA-FAP08, Public Alerting System Administration, Rev. 3
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MP-26-EPA-FAP101, Management Program for Maintaining Emergency Preparedness, Rev. 3
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C-SP 600.2, Communications – Radiopaging and Callback Monthly Operational Test, Rev. 0000
C-SP 600.4, ENRS Weekly Operability Test, Rev. 1
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EP-00008, Manager of Operations; Support Center and Assistants, Rev. 12
EP-00159, Meteorological Assistant Training, Rev. 3
TRG-7.212, Emergency Plan Training, Training Program Guide, Rev. 22
Monthly Communication Drill Records, 2007-2009

Section 1EP4: Emergency Action Level (EAL) and Emergency Plan Changes

Millstone Power Station Emergency Plan, Rev. 38
EP-AA-101, 10 CFR 50.54 (q) Change Evaluation, Rev. 1
MP-26-EPA-FAP06, Emergency Plan Changes, Rev. 4
DNAP-3004, Dominion Program for 10 CFR 50.59 and 10 CFR 72.48 – Changes, Tests, and Experiments, Rev. 4
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PI-AA-200, Corrective Action, Rev. 7
MP-26-EPA-FAP03, Drill and Exercise Manual, Rev. 1
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CFD 08-04, DNC Millstone Station Ongoing Self-Assessment Drill Report, Unit 2 Training Drills
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Section 1EP6: Emergency Preparedness
Millstone Unit 3 Training Drill CFD 09-04

Section 2PS3: Radiological Environmental Monitoring Program (REMP) and Radioactive Material Control Program
Procedures
RPM 2.5.9, Dry Shielded Canister (DSC) Surveys (ISFSI)
RPM 1.3.9, Area Monitoring
MP-22-REC-BAP01, Radiological Effluent Monitoring –Site Dose Calculation Manual
MP-22-GWP-PRG, Groundwater Protection Program
REMP-2.8, Groundwater Sampling
REMP 1.1, Environmental Collection Schedule
REMP 1.2, Radiological Environmental Monitoring (REMP) Sampling & Analysis
REMP 1.3, Land Use Census
REMP 1.4, Quality Control of the Radiological Environmental Monitoring Program
REMP 1.5, Annual Radiological Environmental Operating Report
REMP 2.1, Sample Identification and Transmittal to the Contractor for Analysis
REMP 2.2, Environmental TLD Collection and Distribution
REMP 2.3, Airborne Particulate and Iodine Sampling
REMP 2.4, Soil Sampling
REMP 2.5, Milk Sampling
REMP 2.6, Terrestrial Biota Sampling
REMP 2.7, Terrestrial Water Sampling
ENV 2003, Aquatic Sampling for Radiological Environmental Monitoring Program
REMP 2.8, Groundwater Sampling
C SP 400.2/.3, Meteorological Tower Instruments Calibration
RPM 4.6.24, Small Articles Monitor Calibration
RPM 4.7.3, Small Articles Monitor Operation
RPM 2.4.2, Radiological Control of Material & Vehicles

Sampling Sites
Air Particulate/Iodine 1-I, 2-I, 3-I, 4-I, 10-I, 11-I, 15-C, 27-I
Sea Water Nos. 32-I, 37-C
Aquatic Flora Nos. 33-X, 90-C
Oyster Sampling Trays Nos. 34-X, 88-X
Thermo luminescent Dosimeters Nos.1-I, 2-I, 3-I, 4-I, 7-I, 10-I, 11-I, 13-C, 15-C, 27-I, 45-I, 57-I

Nuclear Oversight (NO)/Self-Assessment Reports
Audit NO-07-10, ODCM/REMP/EPP
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Nuclear Oversight Observation Log Reports regarding environmental monitoring/effluent releases

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Air Sampler Nos. 6084, 6385, 6298, 6280, 6083, 6386, 6277, 6384
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Small Article Monitors Nos. 65, 70, 71, 72, 129, 135, 140, 145,150, 156, 160, 182, 185, 493, 494, 495, 497, 498, 537, 597
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Environmental Cross-Check Results of AREVA Environmental Laboratory 4th quarter 2007 – 2nd quarter 2008
Unit 2 Operator Rounds Log for ISFSI
2009 1st and 2nd Quarter Meteorological Data Certification
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Section 4OA1: Performance Indicator (PI) Verification
NEI 99-02, "Regulatory Assessment Performance Indicator", Rev. 5
ER-AA-SPI-1001, "Implementation of the Consolidated Data Entry (CDE) Reporting for Mitigating System Performance Index (MSPI)" Rev. 1
ER-AA-SPI-1002, "Maintaining the MSPI Basis Document", Rev. 0
Mitigating System Performance Index (MSPI) Basis Document, Millstone Unit 2, Rev. 2
MSPI CDE MP2 AFW Spreadsheet, Millstone Unit 2, August 2008 to August 2009
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MSPI MP3 EDG Spreadsheet, July 2008 to June 2009
MSPI MP3 HPSI Charging Spreadsheet, July 2008 to June 2009
MSPI MP3 HPSI SIH Spreadsheet, July 2008 to June 2009
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M3-EV-08-0035, Evaluation of Gas Void Discovered in the 24" RWST ECCS Supply Line

(CR115088)
ACE014107, Gas Void in RWST ECCS Supply Line (CR115088)
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MRE007000
MRE007066
MRE007163
MRE007165
MRE007167
MRE007168
MRE007202
MRE007208
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LI-AA-500, NRC/INPO/WANO Performance Indicator and MOR Reporting, Rev. 0
MP-16-PI-GDL01, Maintenance of NRC Performance Indicators, Rev. 2
Performance Indicator Data, 3rd quarter 2008 – 2nd quarter 2009

Section 4OA2: Identification and Resolution of Problems

CRs
07-09034
07-09319
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346470

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List of ELU Failures since 04/01/09
Maintenance Rule (a)(1) Evaluation for the Emergency Lighting System, Rev. 2
System Health Reports, Safe Shutdown Lighting, 2008 Q4, 2009 Q1, 2009 Q2

Procedures
C-MP-790, "Emergency Light Inspection and Testing", Rev. 3
MP-24-MR-FAP730, "Maintenance Rule (a)(2) Disposition", Rev. 1
OP-2344B, "480 Volt Motor Control Centers", Rev. 013-02
OP-3344B, "480 Volt Motor Control Centers", Rev. 8
PI-AA-200, "Corrective Action", Rev. 5

Vendor Manuals
BIRNS Emergency Lighting Fixture Model 4701, Rev. 3
Exide Lightguard F100 Emergency Lighting Units, Rev. 1

Work Orders
M2-07-02847
M2-08-02457
M3-06-00018
M3-08-04959
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53M30808168

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CR341193
CR340803
CR340840
CR348595
CR348595*
CR348678*

* Indicates this was generated as a result of this inspection.

Condition Report Engineering Disposition Form
Form DE2-DT-0473-09 dated 7/16/09

Root Cause Evaluation Reports
RCE000983, 'A' RCP RBCCW Cooling Leak, Millstone Unit 2, 7/28/09
RCE000981, 'A' Reactor Coolant Pump Seal Leakage, Millstone Unit 2

Procedures
"Radiographic Examination Procedure for ASME Boiler and Pressure Vessel Code RT010", Rev. 001-01, 9/8/09
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NDE Examination Reports (Data Sheets)
Liquid Penetrant Data Sheet, ECW 1, 2, 3, 4 Seal Cooler, dated 7/15/09 (acceptable)
Liquid Penetrant Data Sheet, ECW 2 Seal Cooler, dated 7/15/09 (unacceptable)
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Weld Data and Inspection Map – WO 53102266944, 9/16/09

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Dominion Letter 09-ZZZ to ASME, Section XI, dated 8/11/09; "Examination Requirements following Defect Removal and Weld Repair, IWA-4422.2.2 (e) and IWA-4520 (1998 Edition)"
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Dominion Letter 09-474, dated 9/22/09; DOMINION NUCLEAR CONNECTICUT, INC. MILLSTONE POWER STATION UNIT 2 ALTERNATE REQUEST RR-89-67 FOR THE P40A RCP SEAL COOLER RETURN TUBING

Section 4OA3: Event Follow-up
EOP-2525, "Standard Post Trip Actions," Rev. 022
EOP-2526, "Reactor Trip Recovery," Rev. 18
EOP-2541, Appendix 4, "Follow-up Actions," Rev. 000
EOP-2541, Appendix 8, Plant Cooldown," Rev. 000
RCE000980, Automatic Reactor Trip of July 3, 2009" dated 7/17/09
CR340244, "Millstone Unit 2 experienced a momentary loss of VR11 at 1605 on 7/3/09" dated 7/3/09
CR340326, "VR-21 transfer switch RS-2 has the Retransfer Blocked light in" dated 7/3/09
CR340569, "WO Require to Implement Temporary VR11 UPS Power Supply to EHC" dated 7/7/09
CR340579, "WO Require to Implement Temporary VR11 UPS Power Supply to Unit 2 Feed Reg Valves" dated 7/7/09
Drawing M2 04-09-98 87000451, "Non-Vital AC"
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Drawing M2 10-29-01 98000017, "Feedwater System"
FWC-01-C, "Feedwater Control System" Lesson Plan dated 3/22/2004
TRM Table 3.6-1, "Containment Isolation Valve List"
FSRC Restart Readiness Review Package dated 7/9/2009
OP-AP-105, "Reactor Shutdown and Trip Report, Millstone Unit 2" dated 7/3/09
OT2-09-023, "Subj: Repower VR-11 Feed Reg Vlv circuitry from UPS" dated 7/8/09
OT2-09-024, "Subj: Install UPS to power the EHC Cabinet (C-40)" dated 7/8/09

LIST OF ACRONYMS

AC	Alternating Current
ADAMS	Agencywide Documents Access and Management System
ALARA	As Low As Reasonably Achievable
AOP	Abnormal Operating Procedure
ANS	Alert and Notification System
ASME	American Society of Mechanical Engineers
ASP	Auxiliary Shutdown Panel
CBM	Condition Base Monitoring
CCP	Component Cooling Pump
CEDE	Committed Effective Dose Equivalent
CFR	Code of Federal Regulations
CR	Condition Report
DEP	Drill and Exercise Performance
DG	Diesel Generator
DNB	Departure from Nucleate Boiling
DNC	Dominion Nuclear Connecticut
DRP	Division of Reactor Projects
DRS	Division of Reactor Safety
DSC	Dry Shielded Canister
EAL	Emergency Action Level
EBFS	Enclosure Building Filtration System
ECCS	Emergency Core Cooling System
EDG	Emergency Diesel Generator
EHC	Electro-Hydraulic Control
ELU	Emergency Lighting Units
EMP	Emergency Medical Technician
EOP	Emergency Operating Procedure
EP	Emergency Preparedness
EPP	Environmental Protection Program
ERO	Emergency Response Organization
ERT	Event Review Team
ESAS	Engineered Safety-Feature Actuation System
ESF	Engineered Safety Feature
FSAR	Final Safety Analysis Report
FY	Fiscal Year
HPSI	High Pressure Safety Injection
HRA	High Radiation Areas
I&C	Instrumentation and Control
IMC	Inspection Manual Chapter
ISFSI	Independent Spent Fuel Storage Installation
JPM	Job Performance Measures
LER	Licensee Event Reports
mrem	millirem
MSPI	Mitigating System Performance Indication
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute

NO	Nuclear Oversight
NRC	Nuclear Regulatory Commission
NSST	Normal Station Service Transformer
OD	Operability Determinations
ODCM	Off-Site Dose Calculation Manual
OOS	Out Of Service
PARS	Publicly Available Records System
PEO	Plant Equipment Operator
PI	Performance Indicator
PI&R	Problem Identification and Resolution
PMT	Post Maintenance Testing
PORV	Power Operated Relief Valve
RBCCW	Reactor Building Closed Cooling Water
RCA	Radiologically Controlled Area
RCP	Reactor Coolant Pump
RCS	Reactor Coolant System
REMP	Radiological Environmental Monitoring Program
RHR	Residual Heat Removal
RSS	Recirculation Spray System
RSST	Reserve Station Service Transformer
SAM	Small Articles Monitor
SDP	Significance Determination Process
SG	Steam Generator
SIH	Safety Injection High
SW	Service Water
TEDE	Total Effective Dose Equivalent
TI	Temporary Instruction
TLD	Thermo Luminescent Dosimeter
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report
UPS	Uninterruptable Power Supply
URI	Unresolved Item
VHRA	Very High Radiation Areas
WO	Work Order

Possible NEAC Meeting Topics

Joint NRC/NEAC Meeting
Tour of Millstone Power Station followed by Dominion Update Brief
Update on Dominion Operator Training Requirements
Update on Employee Concerns and Safety Conscious Work Environment
Annual Report Preparation

2010 Meeting Schedule
Thursday April 22, 2010 – NRC 2009 Performance Evaluation
Thursday September 23, 2010 – Tour of Millstone Power Station/Dominion Update
Thursday December 9, 2009 – Annual Report Preparation

Special Meetings would be at the call of the Chairman.

Nuclear Energy Advisory Council

Millstone 1 Decommissioning Advisory Committee

Pearl I. Rathbun (Co-Chair), Niantic: BA Economics, Eastern Connecticut State University. Emergency Management Director, Town of East Lyme.

Rep. Kevin Ryan (Co-Chair), Oakdale: O.D., Pennsylvania College of Optometry. Legislator, Adjunct Faculty University of New Haven.

Jerome Bobruff, M.D., New London: M.D. Degree, Yale University. Private Practice.

Joseph M. Coleman, Niantic: BSME, University of Notre Dame. Retired. Former experience includes Civil Engineer, Bethlehem Steel Company; Supervisor of Shipbuilding, USN and Electric Boat Division of General Dynamics Corp.

Gregg W. Dixon, Ph.D., Niantic: Ph.D., Mechanical Engineering (Nuclear), Stanford University. Mechanical Engineering, U.S. Coast Guard Academy.

Wayne L. Fraser, East Lyme: Former First Selectman, Town of East Lyme.

Robert A. Moore, Niantic: Master of Theology, Boston University. Pastor of Niantic Community Church.

James R. Sherrard, Mystic: MS Nuclear Science and Ph.D. Program in Nuclear Engineering, Catholic University of America. Chairman of Nuclear Engineering Technology Department, Three Rivers Community-Technical College.

Doran Shumway, Oakdale: School of Radiologic Technology, Windham Community Memorial Hospital, Willimantic. Former radiation control specialist, Connecticut Department of Environmental Protection.

Paul A. Suprin, Waterford: BA Psychology, Central Connecticut State University. Senior Commercial Lending Officer. Selectman, Town of Waterford

Geralyn Winslow, Waterford: Southern Connecticut State University and University of Arizona. Paraprofessional, lifelong resident of Waterford, member of Citizens Regulatory Commission (CRC).