September 2, 2008

Mr. Peter T. Dietrich Site Vice President Entergy Nuclear Northeast James A. FitzPatrick Nuclear Power Plant Post Office Box 110 Lycoming, NY 13093

SUBJECT: JAMES A. FITZPATRICK NUCLEAR POWER PLANT - NRC PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000333/2008008

Dear Mr. Dietrich:

On August 6, 2008, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your James A. FitzPatrick Nuclear Power Plant. The enclosed report documents the inspection results, which were discussed on August 6, 2008, with Mr. Kevin Mulligan and other members of your staff.

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

Based on the samples selected for review, the inspectors concluded that in general, problems were properly identified, evaluated, and corrected. Entergy personnel identified problems and entered them into the Corrective Action Program (CAP) at a low threshold. Entergy prioritized and evaluated issues commensurate with the safety significance of the problems. Corrective actions were generally effective and implemented in a timely manner.

There was one Green finding identified during this inspection. This finding was determined to involve a violation of NRC requirements. However, because this violation was of very low safety significance (Green) and because it was entered into your corrective action program, the NRC is treating this as a non-cited violation (NCV), in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you deny this NCV, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, 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 Senior Resident Inspector at the James A. FitzPatrick Nuclear Power Plant.

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

#### P. Dietrich

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 <u>http://www.nrc.gov/reading-rm/adams.html</u> (the Public Electronic Reading Room).

Sincerely,

### /**RA**/

Raymond J. Powell, Chief Technical Support & Assessment Branch Division of Reactor Projects

Docket No. 50-333 License Nos. DPR-59

Enclosure: Inspection Report No. 05000333/2008008 w/ Attachment: Supplemental Information

<u>cc w/encl</u>:

Senior Vice President, Entergy Nuclear Operations

Vice President, Oversight, Entergy Nuclear Operations

Senior Manager, Nuclear Safety and Licensing, Entergy Nuclear Operations

Senior Vice President and COO, Entergy Nuclear Operations

Assistant General Counsel, Entergy Nuclear Operations

Manager, Licensing, Entergy Nuclear Operations

P. Tonko, President and CEO, New York State Energy Research and Development Authority

P. Eddy, New York State Department of Public Service

P. Smith, President, New York State, Energy, Research, and Development Authority

S. Lyman, Oswego County Administrator

Supervisor, Town of Scriba

C. Donaldson, Esquire, Assistant Attorney General, New York Department of Law

S. Lousteau, Treasury Department, Entergy Services

J. Spath, Program Director, New York State Energy Research and Development Authority

P. Dietrich

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 <u>http://www.nrc.gov/reading-rm/adams.html</u> (the Public Electronic Reading Room).

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Raymond J. Powell, Chief Technical Support & Assessment Branch Division of Reactor Projects

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- J. Hughev. NRR
- G. Hunegs, DRP, Senior Resident Inspector
- S. Rutenkroger, DRP, Resident Inspector
- S. Rulenkröger, DRP, Resident inspe
- K. Kolek, Resident OA
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# SUNSI Review Complete: <u>DEJ</u> (Reviewer's Initials)

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# U.S. NUCLEAR REGULATORY COMMISSION

# **REGION I**

Docket No.:	50-333
License No.:	DPR-59
Report No.:	05000333/2008008
Licensee:	Entergy Nuclear Northeast (Entergy)
Facility:	James A. FitzPatrick Nuclear Power Plant
Location:	268 Lake Road Scriba, New York 13093
Dates:	July 14, 2008 through August 6, 2008
Team Leader:	D. Jackson, Senior Project Engineer, DRP
Inspectors:	G. Hunegs, J.A. FitzPatrick Senior Resident Inspector, DRP S. Rutenkroger, J.A. FitzPatrick Resident Inspector, DRP J. Ambrosini, Project Engineer, DRP J. Heinly, Reactor Engineer, DRP
Approved by:	Raymond Powell, Chief Technical Support & Assessment Branch Division of Reactor Projects

#### SUMMARY OF FINDINGS

IR 05000333/2008008; 07/14/2008 – 08/06/2008; James A. FitzPatrick Nuclear Power Plant; Problem Identification and Resolution.

This team inspection was performed by three NRC region-based inspectors, and the two resident inspectors stationed at James A. FitzPatrick. One finding of very low safety significance (Green) was identified during this inspection. This finding was classified as a noncited violation (NCV). The significance of most findings is indicated by their color (Green, White, Yellow, Red) using NRC 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.

#### Identification and Resolution of Problems

The inspectors concluded that Entergy was generally effective in identifying, evaluating and resolving problems. Entergy personnel identified problems and entered them into the Corrective Action Program (CAP) at a low threshold. The inspectors did identify several problems during plant tours that had been missed. However, the number and scope of the issues were small compared to those identified by plant personnel. Entergy initiated corrective actions for all problems identified by the NRC inspectors. The inspectors determined that, in general, Entergy appropriately screened issues for operability and reportability, and prioritized issues commensurate with the safety significance of the problems. Causal analyses appropriately considered extent of condition, generic issues, and previous occurrences. The inspectors determined that corrective actions addressed the identified causes and were generally implemented in a timely manner.

Entergy's audits and self-assessments were thorough and probing. The inspectors concluded that Entergy adequately identified, reviewed, and applied relevant industry operating experience (OE). Based on interviews, observations of plant activities, and reviews of the CAP and the Employees Concerns Program (ECP), the inspectors determined that site personnel were willing to raise safety issues and to document them in the CAP.

### A. NRC-Identified and Self-Revealing Findings

### **Cornerstone: Mitigating Systems**

• <u>Green.</u> The inspectors identified a Green non-cited violation (NCV) of Title 10 of the Code of Federal Regulations (CFR) Part 50, Appendix B, Criterion XVI, "Corrective Action," because Entergy did not implement adequate corrective actions for the residual heat removal (RHR) service water motor bearing cooling water supply solenoid operated valves (SOVs). Specifically, Entergy did not promptly correct a condition adverse to quality associated with trains of RHR service water motor bearing cooling water supply SOVs following a December 30, 2006 failure of the 'B' RHR service water motor bearing cooling water supply valve. This resulted in unplanned unavailability for the 'C' RHR

Enclosure

service water motor on May 4, 2007 due to the failure of the 'C' RHR service water motor bearing cooling water supply valve. Entergy entered this lack of taking prompt corrective action into their corrective action program as CR-JAF-2008-02411. In addition, Entergy replaced the 'B' and 'C' RHR service water motor bearing cooling water supply valves.

This finding was more than minor because it impacted the equipment performance attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability and capability of a system that responds to initiating events to prevent undesirable consequences. The finding was evaluated in accordance with Inspection Manual Chapter (IMC) 0609.04, "Phase 1 – Initial Screening and Characterization of Findings." The inspectors conducted a Phase 1 Significance Determination Process (SDP) screening and determined that the finding was of very low safety significance (Green) because the finding was not a design or qualification deficiency, did not represent a loss of system safety function or loss of a single train for greater than its allowed technical specification time, and did not screen as potentially risk significant due to seismic, flooding, or severe weather initiating events.

The inspectors determined that this finding had a cross-cutting aspect in the area of problem identification and resolution because Entergy did not thoroughly evaluate a condition adverse to quality such that the resolutions addressed the causes and extent of condition, as necessary. Specifically, Entergy's corrective actions following the 2006 SOV failure did not evaluate the in-service condition of the 'A', 'C', and 'D' RHR service water motor bearing cooling water supply valves. [P.1(c)] (Section 40A2)

B. Licensee-Identified Violations

None.

#### **REPORT DETAILS**

### 4. OTHER ACTIVITIES (OA)

### 4OA2 Problem Identification and Resolution (Biennial - IP 71152B)

#### a. <u>Assessment of the Corrective Action Program (CAP)</u>

#### 1. Inspection Scope

The inspectors reviewed the procedures that describe Entergy's CAP at the James A. FitzPatrick Nuclear Power Plant. Entergy personnel identified problems for evaluation and resolution by initiating condition reports (CRs) that were entered into the condition reporting system. The CRs were subsequently screened for operability, categorized by significance, and assigned for further evaluation, resolution, and trending.

The inspectors evaluated the process for assigning and tracking issues to ensure that issues were screened for operability and reportability, prioritized for evaluation and resolution in a timely manner commensurate with their safety significance, and tracked to identify adverse trends and repetitive issues. In addition, the inspectors interviewed plant staff and management to determine their understanding of, and involvement with, the CAP.

The inspectors reviewed CRs selected across the seven cornerstones of safety in the NRC's Reactor Oversight Process (ROP) to determine if site personnel properly identified, characterized, and entered problems into the CAP for evaluation and resolution. The inspectors selected items from functional areas that included chemistry, emergency preparedness (EP), engineering, maintenance, operations, physical security, radiation safety, and oversight programs to ensure that Entergy appropriately addressed problems identified in these functional areas. The inspectors selected a risk-informed sample of CRs that had been issued since the last NRC Problem Identification and Resolution (PI&R) inspection conducted in July 2006. The inspectors considered risk insights from the station's risk analyses to focus the sample selection and plant tours on risk-significant systems and components. Inspector samples focused on, but were not limited to, these systems. The inspectors expanded the corrective action review to five years for evaluations of reactor feed water pump seal performance, main steam safety relief valve performance, and intake structure debris clogging issues.

Items from other processes at James A. FitzPatrick were selected by the inspectors to verify that the issues were appropriately considered for entry into the CAP. Specifically, the inspectors reviewed a sample of engineering requests, operator workarounds, operability determinations (ODs), work orders, and system health reports. The inspectors also reviewed completed work packages to determine if issues identified during the performance of corrective and preventive maintenance were appropriately entered into the CAP.

The inspectors reviewed CRs to assess whether Entergy personnel adequately evaluated and prioritized identified problems. The issues reviewed encompassed the full range of evaluations, including root cause evaluations (RCEs), apparent cause evaluations (ACEs), and common cause analyses. CRs that were assigned lower levels of significance which did not include formal cause evaluations were reviewed to ensure that they were appropriately classified. The inspectors observed daily Condition Review Group (CRG) meetings in which Entergy personnel reviewed new CRs for prioritization and assignment. The inspectors' review included the appropriateness of the assigned significance, the scope and depth of the causal analysis, and the timeliness of resolution. The inspectors assessed whether the evaluations identified likely causes for the issues and identified appropriate corrective actions to address the identified causes. The inspectors also observed Corrective Action Review Board (CARB) meetings. During CARB meetings, Entergy managers reviewed RCEs and certain ACEs, reviewed associated corrective action assignments, and assessed corrective action effectiveness. Further, the inspectors reviewed equipment operability determinations, reportability assessments, and extent-ofcondition reviews for selected problems to determine if Entergy adequately implemented these processes.

Corrective actions associated with selected CRs were assessed to determine whether the actions addressed the identified causes of the problems. The inspectors reviewed CRs for adverse trends and repetitive problems to determine whether corrective actions were effective in addressing the broader issues. Entergy's timeliness in implementing corrective actions and effectiveness in precluding recurrence for significant conditions adverse to quality were reviewed by the inspectors. The inspectors also reviewed CRs associated with selected NRC findings to determine whether Entergy properly evaluated and resolved the issues. The CRs and other documents reviewed, as well as key personnel contacted, are listed in the Attachment to this report.

2. Assessment

#### Identification of Issues

The inspectors concluded that Entergy personnel identified problems and entered them into the CAP at a low threshold. The inspectors identified several minor issues that had not been previously identified by Entergy personnel. Entergy initiated corrective actions for all problems identified by the NRC inspectors. An example of such an issue was a problem associated with vibration damage to a 'D' emergency diesel generator (EDG) fuel oil supply hose that had not been identified by Entergy personnel. This performance deficiency was determined to be minor because the design of the hose was robust, and if failed, the EDG would continue to operate using an alternate fuel source.

In general, Entergy personnel accurately characterized problems that they documented in the CRs. The inspectors observed managers at the CRG meetings appropriately questioning and challenging CRs that did not contain sufficient information. The inspectors determined that Entergy adequately trended equipment and programmatic issues. The inspectors concluded that personnel were identifying trends at low levels.

### Prioritization and Evaluation of Issues

The inspectors determined that Entergy appropriately prioritized and evaluated issues commensurate with the safety significance of the problem. The CRs were screened for operability and reportability, categorized by significance, and assigned to a department for evaluation and resolution. The various CR screening and management review groups appropriately considered human performance issues, organizational issues, radiological safety concerns, repetitiveness, and adverse trends during the conduct of reviews. Causal analyses appropriately considered extent of condition, extent of cause, generic issues, problem history, and operating experience. Entergy's RCEs were generally thorough, and corrective and preventive actions addressed the identified causes. The inspectors determined that corrective actions taken by Entergy were generally implemented in a timely manner. However, the inspectors did identify one instance associated with the failure of a solenoid-operated valve (SOV) that supplies cooling water to the 'B' residual heat removal (RHR) service water motor bearings where an adequate evaluation of the extent of condition of the problem was not conducted. This issue is documented below as a finding.

### Effectiveness of Corrective Actions

The inspectors concluded that corrective actions for identified deficiencies were timely and adequately implemented. Administrative controls were in place to ensure that corrective actions were completed as scheduled and reviews were performed to ensure the actions were implemented as intended. The inspectors also concluded that Entergy conducted indepth effectiveness reviews for significant issues to determine if the corrective actions were effective in resolving the issue. Entergy appropriately self-identified ineffective or improper closeout of corrective actions and re-entered the issue into the CAP for further action. For significant conditions adverse to quality, the inspectors noted that Entergy's actions were comprehensive, thorough, and successful at preventing recurrence.

### 3. Findings

Introduction. The inspectors identified a Green non-cited violation (NCV) of Title 10 of the Code of Federal Regulations (CFR) Part 50, Appendix B, Criterion XVI, "Corrective Action," because Entergy did not implement adequate corrective actions for the residual heat removal (RHR) service water motor bearing cooling water supply SOVs. Specifically, Entergy did not promptly correct a condition adverse to quality associated with trains of RHR service water motor bearing cooling water supply SOVs following a December 30, 2006 failure of the 'B' RHR service water motor bearing cooling water supply valve. This resulted in unplanned unavailability for the 'C' RHR service water motor on May 4, 2007 due to the failure of the 'C' RHR service water motor bearing cooling water supply valve.

<u>Description</u>. The RHR service water system supplies lake water to the RHR heat exchangers to remove heat during both normal and accident conditions. The system consists of two independent loops, each with two pumps and the associated valves and piping. On December 30, 2006, during a quarterly operability test of the 'B' RHR loop, the

101B SOV, on the RHR service water motor, did not close after the pump motor was secured. The purpose of the SOV is to provide cooling water to the motor bearing during motor operation and is a common component in each of the four RHR service water motors. Entergy performed an apparent cause evaluation for the failure and concluded that the pilot disc was binding in the core tube. This condition occurred due to silt intrusion and stem wear during the valve's normal life cycle. Entergy developed a corrective action to modify the preventative maintenance (PM) requirement for the replacement interval of the SOV from three to two years. An extent of condition review identified that the 'A', 'C', and 'D' RHR service water motors had identical SOVs that were susceptible to this condition and were included in the corrective action. An engineering change, 07-14285, to approve the replacement frequency to two year intervals was completed on February 8, 2007. The corrective action was closed once the engineering change was approved.

The inspectors identified that the extent of condition review did not analyze the in-service time of the other SOVs. Specifically, at the time of the 'B' SOV failure, the 'C' SOV was in service greater than two years, however, its condition was not considered in the evaluation. As a result, on May 4, 2007, the 'C' RHR service water motor SOV failed to open as required while the pump was in torus cooling mode. This rendered the motor and "C" RHR pump inoperable. This failure affected the availability, reliability and capability of the RHR service water motor. Entergy performed an apparent cause analysis and identified that the failure mechanisms were identical to the December 30, 2006 failure. This SOV was identified to be in service for two years and nine months. The corrective action, to modify the PM frequency, was not completed until October 24, 2007.

Entergy entered this lack of taking prompt corrective action into their corrective action program as CR-JAF-2008-02411. In addition, Entergy repaired the 'B' and 'C' RHR service water motor bearing cooling water supply valves once it became apparent that they were not functioning as designed.

The performance deficiency associated with this finding was that Entergy did not implement prompt corrective actions for RHR service water motor cooling SOVs, which resulted in a subsequent failure of the 'C' motor cooling SOV. Specifically, Entergy did not consider the current in-service condition of the 'A', 'C', and 'D' SOVs and implement corrective actions promptly.

<u>Analysis</u>. This finding was more than minor because it impacted the equipment performance attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability and capability of a system that responds to initiating events to prevent undesirable consequences. In accordance with Inspection Manual Chapter (IMC) 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the inspectors conducted a Phase 1 Significance Determination Process (SDP) screening and determined that the finding was of very low safety significance (Green) because the finding was not a design or qualification deficiency, did not represent a loss of system safety function or loss of a single train for greater than its allowed technical specification time, and did not screen as potentially risk significant due to seismic, flooding, or severe weather initiating events.

The inspectors determined that this finding had a cross-cutting aspect in the area of problem identification and resolution because Entergy did not thoroughly evaluate a condition adverse to quality such that the resolutions addressed the causes and extent of condition, as necessary. Specifically, Entergy's corrective actions did not evaluate the inservice condition of the 'A', 'C', and 'D' RHR service water motor bearing cooling water supply valves. [P.1(c)]

<u>Enforcement</u>. 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," requires that measures be established to assure that conditions adverse to quality are promptly identified and corrected. Contrary to the above, Entergy did not establish measures to assure that a condition adverse to quality was promptly identified and corrected. Specifically, Entergy did not implement prompt corrective actions for RHR service water motor cooling SOVs that subsequently resulted in the 'C' RHR service water motor cooling SOV failure. Since this deficiency was of very low safety significance, and was entered into the corrective action program for resolution as CR-JAF-2008-02411, this violation is being treated as an NCV, consistent with Section VI.A.1 of the NRC Enforcement Policy: (NCV 05000333/2008008-01, RHR Service Water SOV Corrective Actions)

### b. Assessment of the Use of Operating Experience

#### 1. Inspection Scope

The inspectors selected a sample of industry Operating Experience (OE) issues to confirm that Entergy had evaluated the OE information for applicability to James A. FitzPatrick and had taken appropriate actions, when warranted. The inspectors reviewed OE documents to ensure that Entergy appropriately considered the underlying problems associated with the issues for resolution via their CAP. The inspectors also observed plant activities to determine if industry OE was considered during the performance of routine and infrequently performed activities. A list of the documents reviewed is included in the Attachment to this report.

# 2. Assessment

The inspectors determined that Entergy appropriately considered industry OE information for applicability, and used the information for corrective and preventive actions to identify and prevent similar issues. The inspectors assessed that OE was appropriately applied and lessons learned were communicated and incorporated into plant operations. Entergy also appropriately screened issues at James A. FitzPatrick for external OE distribution.

The inspectors observed that OE was routinely considered during the performance of plant activities. For example, Entergy personnel consistently discussed relevant OE during daily Operational Focus meetings, as well as during CRG meetings. Entergy utilizes a fleet approach to handling OE information. The OE coordinator at James A. FitzPatrick participates in a daily screening call with other Entergy plant OE coordinators to review new OE from numerous sources. CRs are generated when it is determined that an item of OE needs further evaluation or action at James A. FitzPatrick.

## 3. Findings

No findings of significance were identified in the area of OE.

## c. Assessment of Self-Assessments and Audits

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

The inspectors reviewed a sample of self-assessments and audits of a variety of plant performance areas performed since July 2006. These reviews were performed to determine if issues identified through these assessments were entered into the CAP, when appropriate, and whether corrective actions were initiated to address identified deficiencies. The effectiveness of the audits and assessments was evaluated by comparing audit and assessment results against self-revealing and NRC-identified observations made during the inspection. A list of documents reviewed is included in the Attachment to this report.

# 2. Assessment

The inspectors concluded that Entergy was effective in identifying problems through audits and self-assessments. The inspectors observed that these audits and self-assessments were completed in a methodical manner by personnel knowledgeable in the subjects. The audits and self-assessments were completed to a sufficient depth to identify issues that were subsequently entered into the CAP for evaluation. Corrective actions associated with the issues were implemented commensurate with their safety significance. The inspectors noted that Entergy's audits and self-assessments were consistent with the inspectors' observations.

### 3. Findings

No findings of significance were identified in the area of self-assessments and audits.

### d. Assessment of Safety Conscious Work Environment

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

During the individual interviews and focus group interviews with Entergy personnel, the inspectors assessed whether there were issues that may represent challenges to the free-flow of information or factors at the site that could produce a reluctance to raise safety concerns. In support of this, the inspectors assessed whether staff were willing to enter issues into the CAP or raise safety concerns to their management and/or the NRC. The inspectors also interviewed the station Employee Concerns Program (ECP) coordinator to determine the number and types of issues being raised into the program and the program's effectiveness in addressing potential safety issues.

### 2. Assessment

All persons interviewed demonstrated an adequate knowledge of the CAP and ECP. Based on these interviews, the inspectors did not identify a reluctance to raise safety issues or significant challenges to the free flow of information. The inspectors determined that site personnel were willing to raise safety issues and to document them in the CAP.

3. <u>Findings</u>

No findings of significance were identified related to the safety conscious work environment at James A. FitzPatrick.

#### 4OA6 Meetings, Including Exit:

On August 6, 2008, the team presented the inspection results to Mr. Kevin Mulligan, and other members of the James A. FitzPatrick staff. The team verified that no proprietary information reviewed during the inspection was retained.

#### **ATTACHMENT:** Supplemental Information

# A-1

# **SUPPLEMENTAL INFORMATION**

# **KEY POINTS OF CONTACT**

#### Licensee personnel

- K. Mulligan, General Manager Plant Operations
- C. Adner, Manager Operations
- M. Dooley, Mechanical Systems Supervisor
- D. Richardson, Control Room Supervisor
- R. Cushman, Security Shift Supervisor
- S. Hillestad, Radiation Protection Supervisor
- N. Lukatchik, Instrumentation and Controls Supervisor
- P. Penny, Instrumentation and Controls Supervisor
- W. Hamblin, Chemistry Supervisor
- M. Alvi, Mechanical and Civil Design Supervisor
- R. Hayes, FIN Team Supervisor
- D. Russell, Superintendent Initial Operator Training
- T. Tuttle, System Engineer
- K. Weitz, System Engineer
- A. Brais, Senior Nuclear Support Coordinator
- R. Denbleyker, ECP Coordinator
- D. Deretz, Root Cause Coordinator
- A. Anderson, Nuclear Security Officer
- T. Matthews, Senior Nuclear Operator
- D. Callen, Engineer
- T. Richardson, Instrumentation and Control Technician
- M. Price, Instrumentation and Control Instructor
- E. Salvetti, Chief Chemistry Technician
- W. Hall, Journeyman Radiation Protection Technician
- G. Foster, Design Engineer
- L. Normandeau, EFIN System Engineer
- N. Chapman, PCE Welding Engineer
- E. Dorman, Licensing Specialist
- B. Kenner, Instrumentation and Control Superintendent
- M. Stevens, Maintenance Inspection Coordinator
- C. Moreau, Maintenance Inspection Coordinator
- J. Clark, BOP System Engineer
- D. Ruddy, Supervisor Design Engineering
- S. Kim, Senior Electrical Engineer
- W. Felong, Online Maintenance Scheduling Superintendent
- M. Lamardo, Electrical Specialist
- J. Rastley Jr., Programs and Components Senior Engineer
- J. Cook, Programs and Components Supervisor
- K. Brazeau, System Engineer
- L. Leiter, Maintenance Rule Coordinator
- T. Santy, Security Coordinator

# LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

05000333/2008008-01

NCV

RHR Service Water SOV Corrective Actions (Section 40A2.a.3.a)

# LIST OF DOCUMENTS REVIEWED

<u>Audits and Self-Assessments</u> JAFLO-2006-00033, "Non-CARB Apparent Cause Evaluation Quality Review" JAFLO-2007-00017, "Corrective Action Program Effectiveness" JAFLO-2007-00020, "Operations Department Use of Operating Experience" JAFLO-2007-00071, "Trending Process Assessment" JAFLO-2006-00033, "B ACE Lower Response Reviews Assessment," July 2006

Calculations

JAF-CALC-08-00001, "Motor Starting Voltage Calculation for Standby Liquid Control (SLC) Pumps 11P-2A (M) and 11P-2B (M)," Revision 0

#### Condition Reports

CR-JAF-2008-01548	CR-JAF-2008-00206	CR-JAF-2006-03180
CR-JAF-2007-03202	CR-JAF-2007-03851	CR-JAF-2007-04187
CR-JAF-2008-00047	CR-JAF-2008-00097	CR-JAF-2008-00341
CR-JAF-2008-00499	CR-JAF-2008-00464	CR-JAF-2008-00522
CR-JAF-2008-00651	CR-JAF-2008-01126	CR-JAF-2008-01141
CR-JAF-2008-01431	CR-JAF-2006-05009	CR-JAF-2007-00904
CR-JAF-2007-01635	CR-JAF-2007-03225	CR-JAF-2007-04027
CR-JAF-2006-03152	CR-JAF-2006-04757	CR-JAF-2008-01132
CR-JAF-2007-01008	CR-JAF-2007-02190	CR-JAF-2007-02194
CR-JAF-2007-02149	CR-JAF-2004-00685	CR-JAF-2004-00721
CR-JAF-2004-00850	CR-JAF-2006-00951	CR-JAF-2007-03580
CR-JAF-2007-03747	CR-JAF-2007-03912	CR-JAF-2007-04144
CR-JAF-2000-05692	CR-JAF-2006-01726	CR-JAF-2006-02026
CR-JAF-2001-00631	CR-JAF-2001-02640	CR-JAF-2001-04203
CR-JAF-2001-04683	CR-JAF-2002-04120	CR-JAF-2005-04393
CR-JAF-2008-01278	CR-JAF-2008-01844	CR-JAF-2006-02759
CR-JAF-2006-02812	CR-JAF-2007-00755	CR-JAF-2008-02282
CR-JAF-2007-00752	CR-JAF-2008-00530	CR-JAF-2007-03933
CR-JAF-2007-03110	CR-JAF-2007-02974	CR-JAF-2007-02916
CR-JAF-2007-02910	CR-JAF-2007-02631	CR-JAF-2007-02194
CR-JAF-2007-02190	CR-JAF-2007-01847	CR-JAF-2007-01805
CR-JAF-2007-01404	CR-JAF-2007-01035	CR-JAF-2007-00641
CR-JAF-2006-05072	CR-JAF-2006-05070	CR-JAF-2006-05021
CR-JAF-2006-04643	CR-JAF-2006-04365	CR-JAF-2006-03121

Attachment

CR-JAF-2006-03117	CR-JAF-2006-02556	CR-JAF-2007-03975
CR-JAF-2007-03208	CR-JAF-2007-03183	CR-JAF-2007-03182
CR-JAF-2007-03027	CR-JAF-2007-02848	CR-JAF-2007-01674
CR-JAF-2006-04880	CR-JAF-2006-04875	CR-JAF-2006-04781
CR-JAF-2006-04172	CR-JAF-2006-04874	CR-JAF-2006-03925
CR-JAF-2006-03478	CR-JAF-2006-03310	CR-JAF-2006-03118
CR-JAF-2006-03095	CR-JAF-2006-02941	CR-JAF-2008-01634
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CR-JAF-2006-03164	CR-JAF-2006-02930	CR-JAF-2006-04505
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CR-JAF-2007-03519	CR-JAF-2007-03138	CR-JAF-2008-01161
CR-JAF-2008-01473	CR-JAF-2006-04484	CR-JAF-2006-04695
CR-JAF-2007-01652	CR-JAF-2007-01972	CR-JAF-2007-03473
CR-JAF-2007-04231	CR-JAF-2007-04521	CR-JAF-2008-00262
CR-JAF-2008-00294	CR-JAF-2008-00327	CR-JAF-2008-00660
CR-JAF-2008-01134	CR-JAF-2008-01215	CR-JAF-2008-01474
CR-JAF-2008-01583	CR-JAF-2006-03282	CR-JAF-2006-03317
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		CR-JAF-2006-03095 CR-JAF-2006-03130
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CR-JAF-2006-03217	CR-JAF-2006-03373	CR-JAF-2006-03374
CR-JAF-2006-03693	CR-JAF-2006-03697	CR-JAF-2006-03698
CR-JAF-2006-03953	CR-JAF-2006-04315	CR-JAF-2006-04645
CR-JAF-2006-04750	CR-JAF-2006-04754	CR-JAF-2006-04896
CR-JAF-2006-05182	CR-JAF-2008-04935	CR-JAF-2006-05026
CR-JAF-2007-00097	CR-JAF-2007-00479	CR-JAF-2007-00630
CR-JAF-2007-00719	CR-JAF-2007-00934	CR-JAF-2007-00975

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CR-JAF-2007-01415	CR-JAF-2007-01459	CR-JAF-2007-01656
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Engineering Reports

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Evaluations

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Licensee Event Reports (LERs)

LER-2006-002, HPCI Declared Inoperable Due To Speed Oscillations LER-2007-001, SRV Setpoints Out of Tolerance LER-2007-002, Manual SCRAM Due To Blocked Circ Water Intake

Miscellaneous

Post Transient Evaluation- Loss of Plant Intake Water Level

Employee Concerns Program Statistics- January 2004- July 2008

CRG Meeting Agenda- June 23, 2008

CARB Meeting Agenda- June 23, 2008

CARB Meeting Agenda- August 4, 2008

JENG-APL-01-004, "Maintenance Rule a(1) Action Plan, Reactor Feedwater Pump Seals," Revision 8

Procedures **Procedures** 

EN-OP-102, "Operability Determinations," Revision 2

EN-LI-102, "Corrective Action Process," Revision 10

EN-LI-119, "Apparent Cause Evaluation Process," Revision 7

EN-DC-324, "Preventive Maintenance Program," Revision 4

EN-DC-335, "PM Basis Template," Revision 2

PM Basis Template, "ENS – I&C – DC Power Supply," Revision 2

EN-LI-102, "Corrective Action Process," Revision 7

ISP-89, "Suppression Chamber/Reactor Building Vacuum Breaker Isolation Valve Differential Pressure Switch Instrument Test/Calibration," Revision 15

MP-004.01, "Disassembly of Reactor Vessel for Refueling (ISI)," Revision 35

Attachment

MP-004.15, "Reactor Vessel Reassembly Preparations (ISI)," Revision 0 MP-004.02, "Reassembly of Reactor Vessel after Refueling (ISI)," Revision 39 SDO-99-36, "Suspicious Activity and Notification," Revision 0

# System Health Reports and Trending Data

1<sup>st</sup> Quarter 2008 Roll Up System Health Report

1<sup>st</sup> Quarter 2008 JAF Quarterly Trend Report

#### Work Orders and Work Requests

WO 51104540, "Replace Isophase Boot for 71T-1A, 71T-1B, and 71T-4" WO JAF-04-42163, "TRK' – Remote Valve Operator is Disconnected" WO 00131197, "Perform Inspection of the D-EDG AVR" WO 51105081, "29MST-1001C, Remote Valve Operator is Disconnected" WO 51105454, "Adjust Actuator/Valve Couplings as Necessary" WR JAF-06-20304 WR JAF-06-20305 WR JAF-07-15464 WR JF-031066200 WR JAF-04-14966 WR JAF-07-14583

Work Trackers

LO-WTJAF-2007-00001 LO-WTJAF-2008-00001

# LIST OF ACRONYMS

ACE ADAMS AOP AOV ARP	apparent cause evaluation Agencywide Documents Access and Management System abnormal operating procedure air operated valve alarm response procedure
ASME CAP	American Society of Mechanical Engineers Corrective Action Program
CARB	Corrective Action Review Board
CFR	Code of Federal Regulations
CNAQ	condition not adverse to quality
CR	condition report
CRT	Condition Review Team
DBS D/P	design basis summaries differential pressure
DPO	differing professional opinion
DRP	Division of Reactor Projects
DRS	Division of Reactor Safety
ECP	Employee Concerns Program
EDG	emergency diesel generator
EOP	Emergency Operating Procedure
EP	Emergency Preparedness
	Inspection Manual Chapter in-service test
IST LER	Licensee Event Report
LTCA	long term corrective action
NCV	non-cited violation
NPSH	net positive suction head
NRC	Nuclear Regulatory Commission
OD	operability determination
OE	operating experience
PARS	Publicly Available Records System
PI&R	Problem Identification and Resolution
PM RCE	preventative maintenance
RCE	root cause evaluation reactor coolant system
ROP	Reactor Oversight Program
SAS	secondary alarm station
SCWE	safety conscious work environment
SDP	significance determination process
SL	significance level
SOV	solenoid operated valve
SSC	system, structure, or component
ST TS	surveillance test
UFSAR	technical specification Updated Final Safety Analysis Report
	סטמנט ד ווומי טמופנץ הוומיזטוט ונפטטונ