



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
612 EAST LAMAR BLVD, SUITE 400
ARLINGTON, TEXAS 76011-4125

November 18, 2009

Joseph Kowalewski, Vice President, Operations
Entergy Operations, Inc.
Waterford Steam Electric Station, Unit 3
17265 River Road
Killona, LA 70057-3093

Subject: WATERFORD STEAM ELECTRIC STATION, UNIT 3 - NRC INTEGRATED
INSPECTION REPORT 05000382/2009-004

Dear Mr. Kowalewski:

On October 7, 2009, the U.S. Nuclear Regulatory Commission completed an inspection at your Waterford Steam Electric Station, Unit 3. The enclosed integrated inspection report documents the inspection findings, which were discussed on October 1, 2009, with you and other members of your staff.

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

This report documents one NRC identified finding of very low safety significance (Green). This finding was determined to involve a violation of NRC requirements. However, because of the very low safety significance and because it was entered into your corrective action program, the NRC is treating this finding as a noncited violation, consistent with Section VI.A.1 of the NRC Enforcement Policy. If you contest the violation or the significance of the noncited violation, 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, U.S. Nuclear Regulatory Commission, Region IV, 612 E. Lamar Blvd, Suite 400, Arlington, Texas, 76011-4125; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001; and the NRC Resident Inspector at the Waterford Steam Electric Station, Unit 3 facility. 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 IV, and the NRC Resident Inspector at Waterford Steam Electric Station, Unit 3. The information you provide will be considered in accordance with Inspection Manual chapter 0305.

Entergy Operations, Inc.

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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 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,

/RA/

Jeffrey A. Clark, P.E.
Chief, Project Branch E
Division of Reactor Projects

Docket: 50-382
License: NPF-38

Enclosure:
NRC Inspection Report 05000382/2009004
w/Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Docket: 05000382

License: NFP-38

Report: 05000382/2009004

Licensee: Entergy Operations, Inc.

Facility: Waterford Steam Electric Station, Unit 3

Location: Hwy. 18
Killona, LA

Dates: July 8, 2009 through October 7, 2009

Inspectors: D. Overland, Senior Resident Inspector
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Approved By: Jeff Clark, Chief, Project Branch E
Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000382/2009004; July 8, 2009 through October 7, 2009; Waterford Steam Electric Station, Unit 3; Operability Evaluations.

The report covered a 3-month period of inspection by resident inspectors and announced baseline inspections by regional based inspectors. One Green noncited violation of significance was identified. The significance of most findings is indicated by their color (Green, White, Yellow, or Red) using Inspection Manual Chapter 0609, "Significance Determination Process." Findings for which the significance determination process 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 Findings and Self-Revealing Findings

Cornerstone: Mitigating Systems

Green. The inspectors identified a Green non-cited violation of technical specification 3.3.1, Reactor Protective Instrumentation. The technical specifications require all four channels (A, B, C, and D) of local power density, departure from nucleate boiling ratio, and reactor coolant flow instruments to be operable when in Mode 1. These Channel B instruments require an input from the Channel B log power instrument, which was previously declared inoperable. With the Channel B log power instrument inoperable, the Channel B local power density, departure from nucleate boiling ratio, and reactor coolant flow instruments should also have been declared inoperable. The licensee entered this finding in their corrective action program as condition reports CR-WF3-2009-4401 and CR-WF3-2009-4407.

The failure to either trip or bypass the inoperable channels within one hour was more than minor because it affected the configuration control attribute of the mitigating systems cornerstone. Specifically, deliberate operator action was required to ensure that proper reactor protection system coincidence and reliability were maintained. Also, if left uncorrected, the potential existed for Channel B reactor protective trips to be inadvertently removed while at power. The failure to meet the technical specifications was considered to be of very low safety significance (Green), since there was no actual loss of safety function. This finding has a cross-cutting aspect in the decision-making component of the human performance area because the licensee failed to verify the validity of underlying assumptions and identify unintended consequences of failing to comply with technical specification 3.3.1 by declaring the log power Channel B inoperable and not placing local power density, departure from nucleate boiling ratio, and reactor coolant flow instrument channels in either bypass or trip condition (H.1.b). (Section 1R15)

B. Licensee-Identified Violations

None

REPORT DETAILS

Summary of Plant Status

The plant began the inspection period on July 8, 2009, at 100 percent power and remained at approximately 100 percent power for the rest of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, and Emergency Preparedness

1R01 Adverse Weather Protection (71111.01)

.1 Readiness for Impending Adverse Weather Conditions

a. Inspection Scope

Since thunderstorms with potential tornados and high winds were forecast in the vicinity of the facility for October 4, 2009, the inspectors reviewed the licensee's overall preparations/protection for the expected weather conditions. The inspectors evaluated the licensee staff's documented preparations against the site's procedures and determined that the staff's actions were adequate. During the inspection, the inspectors focused on plant-specific design features and the licensee's procedures used to respond to specified adverse weather conditions. The inspector's evaluated operator staffing and accessibility of controls and indications for those systems required to control the plant. Additionally, the inspectors reviewed the Updated Final Safety Analysis Report and verified that operator actions were appropriate as specified by plant-specific procedures. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of one readiness for impending adverse weather condition sample as defined in Inspection Procedure 71111.01-05.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignments (71111.04)

.1 Partial Walkdown

a. Inspection Scope

The inspectors performed partial system walkdowns of the following risk-significant systems:

- July 22, 2009: Chemical volume control Train A
- August 12, 2009: Emergency feedwater Train A
- August 13, 2009: Low pressure safety injection Train B
- August 18, 2009: Emergency feedwater Train AB
- September 15, 2009: High pressure safety injection system Train A

The inspectors selected these systems based on their risk significance relative to the reactor safety cornerstones at the time they were inspected. The inspectors attempted to identify any discrepancies that could affect the function of the system, and, therefore, potentially increase risk. The inspectors reviewed applicable operating procedures, system diagrams, Updated Final Safety Analysis Report, technical specification requirements, administrative technical specifications, outstanding work orders, condition reports, and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have rendered the systems incapable of performing their intended functions. The inspectors also walked down accessible portions of the systems to verify system components and support equipment were aligned correctly and operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no obvious deficiencies. The inspectors also verified that the licensee had properly identified and resolved equipment alignment problems that could cause initiating events or impact the capability of mitigating systems or barriers and entered them into the corrective action program with the appropriate significance characterization. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of five partial system walkdown samples as defined in Inspection Procedure 71111.04-05.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

.1 Quarterly Fire Inspection Tours

a. Inspection Scope

The inspectors conducted fire protection walkdowns that were focused on availability, accessibility, and the condition of firefighting equipment in the following risk-significant plant areas:

- July 21, 2009: Reactor auxiliary building fire Zones 8B, 8C, 11, and 12
- July 22, 2009: Reactor auxiliary building fire Zones 33, 35, 38, and 39
- July 30, 2009: Reactor auxiliary building fire Zones 3, 5, and 6
- August 3, 2009: Fire Zones Roof E and Roof W
- August 11, 2009: Reactor auxiliary building fire Zone 16
- August 18, 2009: Reactor auxiliary building fire Zones 33, 35, 36, 37, 38, and 39
- August 19, 2009: Reactor auxiliary building fire Zone 32
- August 20, 2009: Reactor auxiliary building fire Zones 2, Roof E, and Roof W
- August 23, 2009: Reactor auxiliary building fire Zones 11, 12, 13, 8B, and 8C
- August 24, 2009: Reactor auxiliary building fire Zones 15, 16, 17, 18, 19, 20, and 21

The inspectors reviewed areas to assess if licensee personnel had implemented a fire protection program that adequately controlled combustibles and ignition sources within

the plant; effectively maintained fire detection and suppression capability; maintained passive fire protection features in good material condition; and had implemented adequate compensatory measures for out of service, degraded or inoperable fire protection equipment, systems, or features, in accordance with the licensee's fire plan. The inspectors selected fire areas based on their overall contribution to internal fire risk as documented in the plant's Individual Plant Examination of External Events with later additional insights, their potential to affect equipment that could initiate or mitigate a plant transient, or their impact on the plant's ability to respond to a security event. Using the documents listed in the attachment, the inspectors verified that fire hoses and extinguishers were in their designated locations and available for immediate use; that fire detectors and sprinklers were unobstructed, that transient material loading was within the analyzed limits; and fire doors, dampers, and penetration seals appeared to be in satisfactory condition. The inspectors also verified that minor issues identified during the inspection were entered into the licensee's corrective action program. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of ten quarterly fire-protection inspection samples as defined in Inspection Procedure 71111.05-05.

b. Findings

No findings of significance were identified.

.2 Annual Fire Protection Drill Observation (71111.05A)

a. Inspection Scope

On September 23, 2009, the inspectors observed a fire brigade activation as the result of a simulated fire at feed heater drain Pump C. The observation evaluated the readiness of the plant fire brigade to fight fires. The inspectors verified that the licensee staff identified deficiencies, openly discussed them in a self-critical manner at the drill debrief, and took appropriate corrective actions. Specific attributes evaluated were: (1) proper wearing of turnout gear and self-contained breathing apparatus; (2) proper use and layout of fire hoses; (3) employment of appropriate fire fighting techniques; (4) sufficient firefighting equipment brought to the scene; (5) effectiveness of fire brigade leader communications, command, and control; (6) search for victims and propagation of the fire into other plant areas; (7) smoke removal operations; (8) utilization of pre planned strategies; (9) adherence to the preplanned drill scenario; and (10) drill objectives.

These activities constitute completion of one annual fire-protection inspection sample as defined in Inspection Procedure 71111.05-05.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11)

a. Inspection Scope

On August 4, 2009, the inspectors observed a crew of licensed operators in the plant's simulator to verify that operator performance was adequate, evaluators were identifying and documenting crew performance problems, and training was being conducted in accordance with licensee procedures. The inspectors evaluated the following areas:

- Licensed operator performance
- Crew's clarity and formality of communications
- Crew's ability to take timely actions in the conservative direction
- Crew's prioritization, interpretation, and verification of annunciator alarms
- Crew's correct use and implementation of abnormal and emergency procedures
- Control board manipulations
- Oversight and direction from supervisors
- Crew's ability to identify and implement appropriate technical specification actions and emergency plan actions and notifications

The inspectors compared the crew's performance in these areas to pre-established operator action expectations and successful critical task completion requirements. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of one quarterly licensed-operator requalification program sample as defined in Inspection Procedure 71111.11.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12Q)

a. Inspection Scope

The inspectors evaluated degraded performance issues involving the following risk significant systems:

- August 11, 2009: Seal leakage on chemical volume control charging pumps
- September 3, 2009: Review of operating experience smart sample FY 2009-01, Inspection of electrical connections for motor control center, circuit breakers and interfaces

The inspectors reviewed events such as where ineffective equipment maintenance has resulted in valid or invalid automatic actuations of engineered safeguards systems and independently verified the licensee's actions to address system performance or condition problems in terms of the following:

- Implementing appropriate work practices
- Identifying and addressing common cause failures
- Scoping of systems in accordance with 10 CFR 50.65(b)
- Characterizing system reliability issues for performance
- Charging unavailability for performance
- Trending key parameters for condition monitoring
- Ensuring proper classification in accordance with 10 CFR 50.65(a)(1) or (a)(2)
- Verifying appropriate performance criteria for structures, systems, and components classified as having an adequate demonstration of performance through preventive maintenance, as described in 10 CFR 50.65(a)(2), or as requiring the establishment of appropriate and adequate goals and corrective actions for systems classified as not having adequate performance, as described in 10 CFR 50.65(a)(1)

The inspectors assessed performance issues with respect to the reliability, availability, and condition monitoring of the system. In addition, the inspectors verified maintenance effectiveness issues were entered into the corrective action program with the appropriate significance characterization. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of two quarterly maintenance effectiveness samples as defined in Inspection Procedure 71111.12-05.

b. Findings

No findings of significance were identified.

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

a. Inspection Scope

The inspectors reviewed licensee personnel's evaluation and management of plant risk for the maintenance and emergent work activities affecting risk-significant and safety-related equipment listed below to verify that the appropriate risk assessments were performed prior to removing equipment for work:

- July 29, 2009: Scheduled elective maintenance outage for containment fan coolers Train B to calibrate containment fan cooler Header B CCW return temperature control valve solenoid Valve CC-835B

- August 3, 2009: Scheduled surveillance of reactor protection system Channel A
- September 9, 2009: Scheduled activity to remove high pressure safety injection Pump AB from high pressure safety injection Train A alignment and align high pressure safety injection Pump A to Train A
- September 11, 2009: Emergent maintenance to replace station Battery AB, Cell 31 with a spare cell due to degraded cell voltage

The inspectors selected these activities based on potential risk significance relative to the reactor safety cornerstones. As applicable for each activity, the inspectors verified that licensee personnel performed risk assessments as required by 10 CFR 50.65(a)(4) and that the assessments were accurate and complete. When licensee personnel performed emergent work, the inspectors verified that the licensee personnel promptly assessed and managed plant risk. The inspectors reviewed the scope of maintenance work, discussed the results of the assessment with the licensee's probabilistic risk analyst or shift technical advisor, and verified plant conditions were consistent with the risk assessment. The inspectors also reviewed the technical specification requirements and inspected portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid and applicable requirements were met. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of four maintenance risk assessments and emergent work control inspection samples as defined in Inspection Procedure 71111.13-05.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed the following issues:

- July 14, 2009: Low individual cell voltage on vital 125 vdc station Battery AB Cell 39
- August 11, 2009: Unplanned load variations during emergency diesel generator Train A surveillance
- August 12, 2009: Emergency diesel generator Train A Relay EG EREL 2342(J) found out of calibration during surveillance
- August 20, 2009: Channel B local power density, departure from nucleate boiling ratio, and reactor coolant flow instruments, when Channel B log power instrument was inoperable

The inspectors selected these potential operability issues based on the risk-significance of the associated components and systems. The inspectors evaluated the technical adequacy of the evaluations to ensure that technical specification operability was properly justified and the subject component or system remained available such that no unrecognized increase in risk occurred. The inspectors compared the operability and design criteria in the appropriate sections of the technical specifications and Updated Safety Analysis Report to the licensee's evaluations, to determine whether the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled. The inspectors determined, where appropriate, compliance with bounding limitations associated with the evaluations. Additionally, the inspectors also reviewed a sampling of corrective action documents to verify that the licensee was identifying and correcting any deficiencies associated with operability evaluations. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of four operability evaluations inspection samples as defined in Inspection Procedure 71111.15-05

b. Findings

Introduction: The inspectors identified a Green non-cited violation of technical specification 3.3.1, Reactor Protective Instrumentation. The technical specifications require all four channels (A, B, C, and D) of local power density, departure from nucleate boiling ratio, and reactor coolant flow instruments to be operable when in Mode 1. These Channel B instruments require an input from the Channel B log power instrument, which was previously declared inoperable. With the Channel B log power instrument inoperable, the Channel B local power density, departure from nucleate boiling ratio, and reactor coolant flow instruments should also have been declared inoperable.

Description: On Aug 20, 2009, the inspector observed the performance of procedure MI-003-126, Revision 14, "Core Protection Calculator Functional." During the performance of the test procedure, the inspector noted that CPC Channel B high log power trip was bypassed. The inspector asked why technical specification 3.3.1 had not been entered due to the inoperable log power Channel B instrument. Technical specification 3.3.1, Reactor Protective Instrumentation, requires that the reactor protective instrumentation channels and bypasses contained in Table 3.3-1 be operable in accordance with the requirements of the table. Table 3.3-1 requires all four channels of local power density (LPD), departure from nucleate boiling ratio (DNBR), and reactor coolant flow instruments to be operable in Mode 1.

Log power Channel B provides a high log power automatic bypass removal signal for LPD, DNBR, and reactor coolant flow instrumentation channels. Technical specification 3.3.1, Table 3.3-1 requires the high log power bypass shall be automatically removed when reactor power is greater than or equal to 10^{-4} % of rated thermal power. When in Mode 1, reactor power is greater than 10^{-4} % of rated thermal power. The inspectors determined that when a log power instrument is out of service, the automatic removal of the high log power bypass function is inoperable and thus the associated protective channels of LPD, DNBR, and reactor coolant flow are also inoperable.

The log power Channel B instrument was originally declared inoperable on Sept 1, 2008. The operability determination concluded that since the plant was in Mode 4, only two log power channels were required, therefore entry into technical specification 3.3.1 was not required. On Sept 9, 2008, the plant entered Mode 2 with log power Channel B still inoperable. The operability was not revised to reflect the change in plant conditions. In accordance with technical specification 3.3.1, operators should have taken action to place the associated LPD, DNBR, and reactor coolant flow protective channels to either bypass or trip within one hour.

On Aug 22, 2009, after considering the inspector's question, the licensee declared LPD Channel B and DNBR Channel B inoperable, and placed both instruments in bypass. During a subsequent control room tour, the inspector verified that LPD and DNBR were bypassed, however noticed that reactor coolant flow Channel B had not been bypassed. The inspector asked the shift manager if technical specification 3.3.1, Table 3.3-1 notation (C) affected any other trips. Upon further assessment, operations personnel determined that reactor coolant low flow was also affected and declared steam generator flow Channel B to be inoperable, as well.

Analysis: The failure to either trip or bypass the inoperable channels within one hour was more than minor because it affected the configuration control attribute of the mitigating systems cornerstone. Specifically, deliberate operator action was required to ensure that proper reactor protection system coincidence and reliability were maintained. Also, if left uncorrected, the potential existed for Channel B reactor protective trips to be inadvertently removed while at power. The failure to meet the technical specifications was considered to be of very low safety significance (Green), since there was no actual loss of safety function. This finding has a cross-cutting aspect in the decision-making component of the human performance area because the licensee failed to verify the validity of underlying assumptions and identify unintended consequences of failing to comply with technical specification 3.3.1 by declaring the log power Channel B inoperable and not placing DNBR, LPD, and reactor coolant flow channels in either bypass or trip condition (H.1.b).

Enforcement: Technical specification 3.3.1, "Reactor Protective Instrumentation," requires all four channels of LPD, DNBR, and reactor coolant flow to be operable and able to have the high log power bypass automatically removed when reactor power is greater than or equal to 10^{-4} % percent of rated thermal power. Contrary to this, on September 9, 2008, the licensee did not comply with the limiting condition for operation action statement for technical specification 3.3.1 which states, "the inoperable channel is placed in either the bypassed or tripped condition within 1 hour." The plant remained in this condition until August 22, 2009. This violation has been determined to be of very low safety significance and was entered into their corrective action program in condition reports CR-WF3-2009-4401 and CR-WF3-2009-4407. Therefore, this violation is being treated as a non-cited violation (NCV), consistent with Section VI.A.1 of the NRC Enforcement Policy.

1R18 Plant Modifications (71111.18)

a. Inspection Scope

The inspectors reviewed the following temporary/permanent modifications to verify that the safety functions of important safety systems were not degraded:

- August 26, 2009: Permanent modification of containment vacuum relief valves such that once the valves are automatically opened, they remain open until manually closed.
- August 7, 2009: Temporary modification to revise the setpoint for the reactor coolant Pump 2A upper thrust bearing high temperature alarm to reduce nuisance alarms in the control room.
- September 14, 2009: Temporary modification to replace station Battery AB, Cell 31 with a new cell. The old Cell 31 was left in place and jumpered around, while the new Cell 31 was installed at the end of the battery rack.

The inspectors reviewed the temporary modification and the associated safety evaluation screening against the system design bases documentation, including the Updated Final Safety Analysis Report and the technical specifications, and verified that the modification did not adversely affect the system operability/availability. The inspectors also verified that the installation and restoration were consistent with the modification documents and that configuration control was adequate. Additionally, the inspectors verified that the temporary modification was identified on control room drawings, appropriate tags were placed on the affected equipment, and licensee personnel evaluated the combined effects on mitigating systems and the integrity of radiological barriers.

The inspectors reviewed key affected parameters associated with energy needs, materials/replacement components, timing, heat removal, control signals, equipment protection from hazards, operations, flow paths, pressure boundary, ventilation boundary, structural, process medium properties, licensing basis, and failure modes for the modification listed below. The inspectors verified that modification preparation, staging, and implementation did not impair emergency/abnormal operating procedure actions, key safety functions, or operator response to loss of key safety functions; postmodification testing will maintain the plant in a safe configuration during testing by verifying that unintended system interactions will not occur, systems, structures and components' performance characteristics still meet the design basis, the appropriateness of modification design assumptions, and the modification test acceptance criteria will be met; and licensee personnel identified and implemented appropriate corrective actions associated with permanent plant modifications. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of three samples for temporary and permanent plant modifications as defined in Inspection Procedure 71111.18-05

b. Findings

No findings of significance were identified.

1R19 Postmaintenance Testing (71111.19)

a. Inspection Scope

The inspectors reviewed the following postmaintenance activities to verify that procedures and test activities were adequate to ensure system operability and functional capability:

- June 23, 2009: Replacement of high pressure safety injection Pump B Tyco time delay relay following the failure of the relay to start the pump during a routine surveillance test
- July 23, 2009: Replacement of seal package on chemical volume control charging Pump B to reduce reactor coolant system unidentified leakage
- July 29, 2009: Scheduled elective maintenance calibration of containment fan cooler Header B CCW return temperature control valve solenoid Valve CC-835B
- August 4, 2009: Corrective maintenance to repair the actuator for steam generator SG1 main steam atmospheric dump Valve MS-116A
- August 11, 2009: Scheduled preventative maintenance to clean, inspect, and test emergency diesel generator Train A Relay EG EREL 2342(J)
- September 9, 2009: Scheduled preventative maintenance to replace the pulsation dampener and perform motor maintenance on chemical volume control charging Pump AB
- September 14, 2009: Emergent maintenance to replace station Battery AB, Cell 31 with a spare cell, due to degraded voltage on the cell
- September 29, 2009: Scheduled preventative maintenance to check the overcurrent trip on the breaker for non-nuclear safety return header isolation Valve CC-562.

The inspectors selected these activities based upon the structure, system, or component's ability to affect risk. The inspectors evaluated these activities for the following (as applicable):

- The effect of testing on the plant had been adequately addressed; testing was adequate for the maintenance performed
- Acceptance criteria were clear and demonstrated operational readiness; test instrumentation was appropriate

The inspectors evaluated the activities against the technical specifications, the Updated Final Safety Analysis Report, 10 CFR Part 50 requirements, licensee procedures, and various NRC generic communications to ensure that the test results adequately ensured that the equipment met the licensing basis and design requirements. In addition, the inspectors reviewed corrective action documents associated with postmaintenance tests to determine whether the licensee was identifying problems and entering them in the corrective action program and that the problems were being corrected commensurate with their importance to safety. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of eight postmaintenance testing inspection sample(s) as defined in Inspection Procedure 71111.19-05.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors reviewed the Updated Final Safety Analysis Report, procedure requirements, and technical specifications to ensure that the six surveillance activities listed below demonstrated that the systems, structures, and/or components tested were capable of performing their intended safety functions. The inspectors either witnessed or reviewed test data to verify that the significant surveillance test attributes were adequate to address the following:

- Preconditioning
- Evaluation of testing impact on the plant
- Acceptance criteria
- Test equipment
- Procedures
- Jumper/lifted lead controls
- Test data
- Testing frequency and method demonstrated technical specification operability
- Test equipment removal
- Restoration of plant systems
- Fulfillment of ASME Code requirements

- Updating of performance indicator data
- Engineering evaluations, root causes, and bases for returning tested systems, structures, and components not meeting the test acceptance criteria were correct
- Reference setting data
- Annunciators and alarms setpoints

The inspectors also verified that licensee personnel identified and implemented any needed corrective actions associated with the surveillance testing.

- August 6, 2009: Safety related electrical Bus 3A undervoltage relay calibration
- August 10, 2009: Emergency diesel generator Train A surveillance
- August 20, 2009: Core protection calculator Train B surveillance
- August 22, 2009: Plant protection system Channel B surveillance
- August 24, 2009: Emergency diesel generator and subgroup relays Train B
- September 14, 2009: High pressure safety injection Train AB

Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of six surveillance testing inspection samples as defined in Inspection Procedure 71111.22-05.

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation (71114.06)

.1 Training Observations

a. Inspection Scope

The inspectors observed a training evolution for licensed operators on September 17, 2009, which required emergency plan implementation by a licensee operations crew. This evolution was planned to be evaluated and included in performance indicator data regarding drill and exercise performance. The inspectors observed event classification and notification activities performed by the crew. The inspectors also attended the postevolution critique for the scenario. The focus of the inspectors' activities was to note any weaknesses and deficiencies in the crew's performance and ensure that the licensee evaluators noted the same issues and entered them into the corrective action program. As part of the inspection, the inspectors reviewed the scenario package and other documents listed in the attachment.

These activities constitute completion of one sample as defined in Inspection Procedure 71114.06-05.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational and Public Radiation Safety

2OS2 ALARA Planning and Controls (71121.02)

a. Inspection Scope

The inspector assessed licensee performance with respect to maintaining individual and collective radiation exposures ALARA. The inspector used the requirements in 10 CFR Part 20 and the licensee's procedures required by technical specifications as criteria for determining compliance. The inspector interviewed licensee personnel and reviewed:

- Current 3-year rolling average collective exposure
- Five outage work activities scheduled during the inspection period and associated work activity exposure estimates which were likely to result in the highest personnel collective exposures
- Site-specific trends in collective exposures, plant historical data, and source-term measurements
- Five work activities of highest exposure significance completed during the last outage
- ALARA work activity evaluations, exposure estimates, and exposure mitigation requirements
- Intended versus actual work activity doses and the reasons for any inconsistencies
- Person-hour estimates provided by maintenance planning and other groups to the radiation protection group with the actual work activity time requirements
- Post-job (work activity) reviews
- Assumptions and basis for the current annual collective exposure estimate, the methodology for estimating work activity exposures, the intended dose outcome, and the accuracy of dose rate and man-hour estimates
- Method for adjusting exposure estimates, or re-planning work, when unexpected changes in scope or emergent work were encountered
- Exposure tracking system

- Exposures of individuals from selected work groups
- Records detailing the historical trends and current status of tracked plant source terms and contingency plans for expected changes in the source term due to changes in plant fuel performance issues or changes in plant primary chemistry
- Declared pregnant workers during the current assessment period, monitoring controls, and the exposure results
- Self-assessments, audits, and special reports related to the ALARA program since the last inspection
- Resolution through the corrective action process of problems identified through post-job reviews and post-outage ALARA report critiques

The inspector completed 11 of the required 15 samples and 5 of the optional samples as defined in IP 71121.02-05.

4. OTHER ACTIVITIES

40A1 Performance Indicator Verification (71151)

.1 Data Submission Issue

a. Inspection Scope

The inspectors performed a review of the data submitted by the licensee for the second quarter of 2009 performance indicators for any obvious inconsistencies prior to its public release in accordance with Inspection Manual Chapter 0608, "Performance Indicator Program."

This review was performed as part of the inspectors' normal plant status activities and, as such, did not constitute a separate inspection sample.

b. Findings

No findings of significance were identified.

.2 Safety System Functional Failures

a. Inspection Scope

The inspectors sampled licensee submittals for the Safety System Functional Failures performance indicator for the period from the second quarter of 2008 through the second quarter of 2009. To determine the accuracy of the performance indicator data reported during those periods, performance indicator definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, and NUREG-1022, "Event Reporting Guidelines 10 CFR 50.72 and 50.73" definitions and guidance were used. The inspectors reviewed the licensee's operator narrative logs, operability assessments, maintenance rule records, maintenance work orders,

issue reports, event reports and NRC Integrated Inspection reports for the period beginning the second quarter of 2008 through the second quarter of 2009 to validate the accuracy of the submittals. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the performance indicator data collected or transmitted for this indicator and none were identified. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of one safety system functional failures sample as defined in Inspection Procedure 71151-05.

b. Findings

No findings of significance were identified.

.3 Mitigating Systems Performance Index - Emergency ac Power System

a. Inspection Scope

The inspectors sampled licensee submittals for the Mitigating Systems Performance Index (MSPI) - Emergency ac Power System performance for the period from the second quarter of 2008 through the second quarter of 2009. To determine the accuracy of the performance indicator data reported during those periods, performance indicator definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, was used. The inspectors reviewed the licensee's operator narrative logs, mitigating systems performance index derivation reports, issue reports, event reports and NRC integrated inspection reports for the period beginning the second quarter of 2008 through the second quarter of 2009 to validate the accuracy of the submittals. The inspectors reviewed the mitigating systems performance index component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the performance indicator data collected or transmitted for this indicator and none were identified. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of one mitigating systems performance index emergency ac power system sample as defined in Inspection Procedure 71151-05.

b. Findings

No findings of significance were identified.

.4 Mitigating Systems Performance Index - Cooling Water Systems

a. Inspection Scope

The inspectors sampled licensee submittals for the Mitigating Systems Performance Index - Cooling Water Systems performance for the period from the second quarter of 2008 through the second quarter of 2009. To determine the accuracy of the performance indicator data reported during those periods, performance indicator definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment

Performance Indicator Guideline,” Revision 5, was used. The inspectors reviewed the licensee’s operator narrative logs, issue reports, mitigating systems performance index derivation reports, event reports and NRC integrated inspection reports for the period beginning the second quarter of 2008 through the second quarter of 2009 to validate the accuracy of the submittals. The inspectors reviewed the mitigating systems performance index component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee’s issue report database to determine if any problems had been identified with the performance indicator data collected or transmitted for this indicator and none were identified. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of one mitigating systems performance index cooling water system sample as defined in Inspection Procedure 71151-05.

b. Findings

No findings of significance were identified.

.16 Occupational Exposure Control Effectiveness (OR01)

a. Inspection Scope

The inspector sampled licensee submittals for the Occupational Radiological Occurrences performance indicator for the first quarter of 2009 through the third quarter of 2009. To determine the accuracy of the performance indicator data reported during those periods, performance indicator definitions and guidance contained in NEI Document 99-02, “Regulatory Assessment Performance Indicator Guideline,” Revision 5, were used. The inspector reviewed the licensee’s assessment of the performance indicator for occupational radiation safety to determine if indicator related data was adequately assessed and reported. To assess the adequacy of the licensee’s performance indicator data collection and analyses, the inspector discussed with radiation protection staff, the scope and breadth of its data review, and the results of those reviews. The inspector independently reviewed electronic dosimetry dose rate and accumulated dose alarm and dose reports and the dose assignments for any intakes that occurred during the time period reviewed to determine if there were potentially unrecognized occurrences. The inspector also conducted walkdowns of numerous locked high and very high radiation area entrances to determine the adequacy of the controls in place for these areas.

These activities constitute completion of the occupational radiological occurrences sample as defined in Inspection Procedure 71151-05.

b. Findings

No findings of significance were identified.

.17 Radiological Effluent Technical Specifications/Offsite Dose Calculation Manual
Radiological Effluent Occurrences (PR01)

a. Inspection Scope

The inspector sampled licensee submittals for the Radiological Effluent Technical Specifications/Offsite Dose Calculation Manual Radiological Effluent Occurrences performance indicator for the first quarter of 2009 through the third quarter of 2009. To determine the accuracy of the performance indicator data reported during those periods, performance indicator definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, was used. The inspector reviewed the licensee's issue report database and selected individual reports generated since this indicator was last reviewed to identify any potential occurrences such as unmonitored, uncontrolled, or improperly calculated effluent releases that may have impacted offsite dose. The inspector reviewed gaseous effluent summary data and the results of associated offsite dose calculations for selected dates during the third quarter of 2009 to determine if indicator results were accurately reported. The inspector also reviewed the licensee's methods for quantifying gaseous and liquid effluents and determining effluent dose. Additionally, the inspector reviewed the licensee's historical 10 CFR Part 50.75(g) file and selectively reviewed the licensee's analysis for discharge pathways resulting from a spill, leak, or unexpected liquid discharge focusing on those incidents which occurred over the last few years.

These activities constitute completion of the radiological effluent technical specifications/offsite dose calculation manual radiological effluent occurrences sample as defined in Inspection Procedure 71151-05.

b. Findings

No findings of significance were identified.

40A2 Identification and Resolution of Problems (71152)

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness, Public Radiation Safety, Occupational Radiation Safety, and Physical Protection

.1 Routine Review of Identification and Resolution of Problems

a. Inspection Scope

As part of the various baseline inspection procedures discussed in previous sections of this report, the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify that they were being entered into the licensee's corrective action program at an appropriate threshold, that adequate attention was being given to timely corrective actions, and that adverse trends were identified and addressed. The inspectors reviewed attributes that included: the complete and accurate identification of the problem; the timely correction, commensurate with the safety significance; the evaluation and disposition of performance issues, generic implications, common causes, contributing factors, root causes, extent of condition

reviews, and previous occurrences reviews; and the classification, prioritization, focus, and timeliness of corrective. Minor issues entered into the licensee's corrective action program because of the inspectors' observations are included in the attached list of documents reviewed.

These routine reviews for the identification and resolution of problems did not constitute any additional inspection samples. Instead, by procedure, they were considered an integral part of the inspections performed during the quarter and documented in Section 1 of this report.

b. Findings

No findings of significance were identified.

.2 Daily Corrective Action Program Reviews

a. Inspection Scope

In order to assist with the identification of repetitive equipment failures and specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the licensee's corrective action program. The inspectors accomplished this through review of the station's daily corrective action documents.

The inspectors performed these daily reviews as part of their daily plant status monitoring activities and, as such, did not constitute any separate inspection samples.

b. Findings

No findings of significance were identified.

.3 Semi-Annual Trend Review

a. Inspection Scope

The inspectors performed a review of the licensee's corrective action program and associated documents to identify trends that could indicate the existence of a more significant safety issue. The inspectors focused their review on repetitive equipment issues, but also considered the results of daily corrective action item screening discussed in Section 4OA2.2, above, licensee trending efforts, and licensee human performance results. The inspectors nominally considered the 6-month period of January 2009 through July 2009, for a review of Operating Experience Smart Sample: OpESS FY2009-02, "A Negative trend and Recurring Events Involving feedwater systems" as it applies to the emergency feedwater system.

The inspectors also included issues documented outside the normal corrective action program in major equipment problem lists, repetitive and/or rework maintenance lists, departmental problem/challenges lists, system health reports, quality assurance audit/surveillance reports, self-assessment reports, and Maintenance Rule assessments. The inspectors compared and contrasted their results with the results contained in the licensee's corrective action program trending reports. Corrective actions associated with

a sample of the issues identified in the licensee's trending reports were reviewed for adequacy.

These activities constitute completion of one single semi-annual trend inspection sample as defined in Inspection Procedure 71152-05.

b. Findings

No findings of significance were identified.

40A5 Other Activities

.1 Quarterly Resident Inspector Observations of Security Personnel and Activities

a. Inspection Scope

During the inspection period, the inspectors performed observations of security force personnel and activities to ensure that the activities were consistent with Waterford Steam Electric Station security procedures and regulatory requirements relating to nuclear plant security. These observations took place during both normal and off-normal plant working hours.

These quarterly resident inspector observations of security force personnel and activities did not constitute any additional inspection samples. Rather, they were considered an integral part of the inspectors' normal plant status review and inspection activities.

b. Findings

No findings of significance were identified.

40A6 Meetings

Exit Meeting Summary

On September 18, 2009, the team presented the inspection results to Mr. J. Kowalewski, Vice President, Operations, and other members of his staff who acknowledged the findings. The team confirmed that proprietary information was not provided or examined during the inspection.

On October 1, 2009, the inspectors presented the inspection results to Mr. Joe Kowalewski, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspector asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

M. Adams, Supervisor, System Engineering
S. Anders, Manager, Plant Security
C. Arnone, Plant Manager
J. Brawley, ALARA Supervisor, Radiation Protection
B. Briner, Technical Specialist IV, Component Engineering
K. Christian, Director, Nuclear Safety Assurance
K. Cook, Manager, Operations
L. Dautat, Supervisor, Radiation Protection
D. Dufrene; Technician, Radiation Protection
C. Fugate, Assistant Manager, Operations
M. Haydel, Supervisor, Programs and Components
J. Kowalewski, Vice President of Operations
J. Lewis, Manager, Emergency Preparedness
B. Lindsey, Manager, Maintenance
M. Mason, Senior Licensing Specialist, Licensing
W. McKinney, Manager, Corrective Action and Assessments
C. Miller, Lead Supervisor, Radiation Protection
R. Murillo, Manager, Licensing
K. Nicholas, Director, Engineering
B. Piluti, Manager, Radiation Protection
J. Polluck, Engineer, Licensing
R. Putnam, Manager, Programs and Components
S. Ramzy; Specialist, Radiation Protection
J. Ridge, Manager, Quality Assurance
J. Solaski, Quality Assurance Auditor
J. Williams, Senior Licensing Specialist, Licensing

NRC Personnel

S. Anderson, General Engineer, HQ
T. Buchanan, Project Engineer, RIV
L. Carson II, Senior Health Physicist
M. Chambers, Resident Inspector, Cooper Nuclear Station
R. Egli, Branch Chief, Technical Training Center
R. Hickok, Senior Reactor Technology Instructor, Technical Training Center
P. Jayroe, Project Engineer, RIV
G. Replogle, Senior Project Engineer, RIV

LIST OF ITEMS OPENED AND CLOSED

Opened and Closed

05000382/2009004-1	NCV	Failure to Follow Technical Specification Requirements for Reactor Protective Instrumentation
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LIST OF DOCUMENTS REVIEWED

Section 1RO1: Adverse Weather Protection

CONDITION REPORTS

CR-WF3-1998-00710

PROCEDURES/DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
OP-901-521	Sever Weather and Flooding	301

Section 1RO4: Equipment Alignment

CONDITION REPORTS

CR-WF3-2009-0607	CR-WF3-2009-0737	CR-WF3-2009-1189	CR-WF3-2009-1624
CR-WF3-2009-2869			

WORK ORDERS

190714

PROCEDURES/DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
OP-903-045	Emergency Feedwater Flow Path Lineup Verification	5
OP-009-008	Safety Injection System	26
OP-002-005	Chemical and Volume Control	28
SD-CVC	Chemical and Volume Control System Description	6
SD-SI	Safety Injection System Description	6

Section 1RO5: Fire Protection

CONDITION REPORTS

CR-WF3-2009-04034 CR-WF3-2009-04035 CR-WF3-2009-04060

PROCEDURES/DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
UNT-005-013	Fire Protection Program	10
OP-009-004	Fire Protection	305
MM-004-424	Building Fire Hose Station Inspection and Hose Replacement	10
MM-007-010	Fire Extinguisher Inspection and Extinguisher Replacement	302
FP-001-014	Duties of a Fire Watch	14
FP-001-015	Fire Protection Impairments	302
DBD-018	Appendix R/Fire Protection	
FP-001-015	Fire Protection Impairments	302
FP-001-018	Pre-fire Plan Strategies, Development, And Revision	300
UNT-007-006	Housekeeping	301
EN-DC-161	Control of Combustibles	003
UNT-007-060	Control of Loose Items	302
UNT-005-013	Fire Protection Program	010
	Engineering Calculations F91-044	01
	Engineering Calculations F91-019	0

Section 1R11: Licensed Operator Requalification Program

PROCEDURES/DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
	Simulator Scenario Number E-70	
	Simulator Scenario Number E-125	
OP-901-201	Steam Generator Level Control System Malfunction	009

OP-902-000	Standard Post Trip Actions	010
OP-902-008	Safety function Recovery Procedure	015
OP-901-110	Pressurizer Level Control Malfunction	005
OP-901-311	Loss of Train B Safety Bus	302
OP-901-102	CEA or CEDMCS Malfunction	300
OP-902-001	Reactor Trip Recovery	011
OP-902-002	Loss of Coolant Accident Recovery Procedure	012

Section 1R12: Maintenance Effectiveness

CONDITION REPORTS

CR-WF3-2007-3497	CR-WF3-2008-4306	CR-WF3-2008-3836	CR-WF3-2009-0506
CR-WF3-2008-4189	CR-WF3-2008-4611	CR-WF3-2009-1190	CR-WF3-2009-4131
CR-WF3-2008-4297	CR-WF3-2008-4765	CR-WF3-2009-2862	CR-WF3-2009-3810
CR-WF3-2008-1072	CR-WF3-2008-2410	CR-WF3-2008-2352	CR-WF3-2008-4332
CR-WF3-2008-1796	CR-WF3-2008-2810	CR-WF3-2008-2579	CR-WF3-2008-5045
CR-WF3-2008-1807	CR-WF3-2008-3363	CR-WF3-2008-4127	CR-WF3-2008-5273
CR-WF3-2008-2066	CR-WF3-2008-2346	CR-WF3-2008-4173	CR-WF3-2009-0955
CR-WF3-2009-1200	CR-WF3-2009-1284	CR-WF3-2009-4015	CR-WF3-2009-4324

PROCEDURES/DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
EN-DC-206	Maintenance Rule	1
NUMARC 93-01	Industry Guideline for Monitoring the Effectiveness of maintenance at Nuclear Power Plants	3

Section 1R13: Maintenance Risk Assessment and Emergent Work Controls

WORK ORDERS

51802942	52039753	0019397401	52192184
197692			

PROCEDURES/DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
OI-037-000	Operations Risk Management Guideline	300
EN-WM-101	On-Line Work Management Process	1

W2.502	Configuration risk Management Program	000
OP-100-010	Equipment Out of Service	303
OP-903-107	Plant Protection System channel A & B & C & D Functional Test	303
OP-903-030	Safety Injection Pump Operability Verification	18
OP-009-008	Safety Injection System	26
OP-006-003	125 VDC Electrical Distribution	301
ME-003-200	Station Battery Bank and Charger (Weekly)	301
ME-003-210	Station Battery Bank and Charger (Quarterly)	12

Section 1R15: Operability Evaluations

CONDITION REPORTS

CR-WF3-2009-4466	CR-WF3-2009-4163	CR-WF3-2009-4395	CR-WF3-2009-4401
CR-WF3-2009-4407	CR-WF3-2009-3540	CR-WF3-2009-4139	CR-WF3-2009-3448
CR-WF3-2009-3557			

WORK ORDERS

5180191 52038533

PROCEDURES/DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
EN-OP-104	Operability Determinations	4
ME-003-200	Station Battery Bank and Charger (Weekly)	301
ME-003-210	Station Battery Bank and Charger (Quarterly)	12
OP-006-003	125 Vdc Electrical Distribution	301
OP-006-001	Plant Distribution System	305
MI-003-126	Core Protection Calculator Functional	14
SD-PPS	Plant Protection System Description	0
OP-903-107	Plant Protection System Channel A, B, C, D, Functional Test	303
TSTF-324	Correct logarithmic power vs. RTP	1

Section 1R18: Plant Modifications

CONDITION REPORTS

CR-WF3-2009-3399

WORK ORDERS

203111 197692

PROCEDURES/DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
EN-DC-136	Temporary Modifications	4
EC NO: 706	Modification of containment relief valves	0
EN-WM-105	Implement EC 706	2/3/2007
EN-WM-105	Implement EC 15451	2/3/2007
ME-004-213	Battery Intercell Connections	14
16496	Temporary Modification	

Section 1R19: Postmaintenance Testing

CONDITION REPORTS

CR-WF3-2009-3102 CR-WF3-2009-4304 CR-WF3-2009-3448 CR-WF3-2009-4139
CR-WF3-2009-4766

WORK ORDERS

199029 51802942 52039753 0019397401
199977 188048 52040097 52038057
51523543 201698 52194563 197692
5180191

PROCEDURES/DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
OP-903-030	Safety Injection Pump Operability Verification	15
OP-903-068	Emergency Diesel Generator Operability and Subgroup Relay Operability Verification	303
OP-009-008	Safety Injection System	25

Section 1R19: Postmaintenance Testing

CONDITION REPORTS

CR-WF3-2009-3102 CR-WF3-2009-4304 CR-WF3-2009-3448 CR-WF3-2009-4139
CR-WF3-2009-4766

WORK ORDERS

199029	51802942	52039753	0019397401
199977	188048	52040097	52038057
51523543	201698	52194563	197692
5180191			

PROCEDURES/DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
OP-903-118	Primary Auxiliaries Quarterly IST Valve Tests	18
OP-903-037	Containment Cooling Fan Operability Verification	5
OP-903-119	Secondary Auxiliaries Quarterly IST Valve Tests	9
OP-903-120	Containment and Miscellaneous Systems Quarterly IST Valve Tests	9
OP-903-003	Charging Pump Operability Check	301
ME-004-213	Battery Intercell Connections	14
OP-903-118	Primary Auxiliaries Quarterly IST Valve Tests	18
ME-007-002	Molded Case Circuit Breakers	15
SD-CC	Component Cooling Water and Auxiliary Component Cooling Water System Description	7
STA-001-005	Leakage testing of Air and Nitrogen Accumulators for Safety Related Valves	304

Section 1R22: Surveillance Testing

CONDITION REPORTS

CR-WF3-2009-04053 CR-WF3-2009-04072 CR-WF3-2009-04073 CR-WR3-2009-4395
CR-WF3-2009-4401 CR-WF3-2009-4203 CR-WF3-2008-4163 CR-WR3-2009-4466

PROCEDURES/DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
ME-003-318	G.E. Undervoltage Relay Model 121AV55C	303
OP-009-002	Emergency Diesel Generator Start Evaluation [Data Sheet]	310
OP-009-002	Diesel Generator Start Running Log	310
OP-903-068	Emergency Diesel Generator A Surveillance Test	
OP-903-068	Emergency Diesel Generator and Subgroup Relay Operability Verification – Train B	303
OP-903-030	Safety Injection Pump Operability Verification	18
OP-009-008	Safety Injection System	26
OP-903-107	Plant Protection System Channel B Functional Test	303
MI-003-126	Core Protection Calculator Functional	014

Section 1EP6: Drill Evaluation

PROCEDURES/DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
EP-001-001	Recognition and Classification of Emergency Conditions	22
EP-001-030	Site Area Emergency	300
EP-001-040	General Emergency Scenario DEP 2007-02	300

Section 2OS2: ALARA Planning and Controls

PROCEDURES/DOCUMENTS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
EN-RP-102	Radiological Control	0
EN-RP-105	Radiation Work Permits	4
EN-RP-106	Radiological Survey Documentation	2
EN-RP-110	ALARA Program	2
EN-RP-141	Job Coverage	6
EN-DIR-RP-002	Radiation Protection Performance Indicator	0

AUDITS, SELF-ASSESSMENTS, AND SURVEILLANCES

<u>NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
QA-14/15-2009-WF3-1	Radiation Protection/Radwaste Audit	
	Quality Oversight Observations	May 2008

RADIATION WORK PERMITS

<u>RWP#</u>	<u>RWP DESCRIPTION</u>
2008-0511	1R15 S/G Primary Side Eddy Current Testing Inspection and Repair
2008-0610	1R Scaffolding
2008-0631	1R15 Alloy 600 Mitigation Activities Pressurizer/Hot Legs (Weld Overlay)
2008-0702	Reactor Disassembly
2008-0705	Reactor Reassembly

CONDITION REPORTS

CR-WF3-2008-1699	CR-WF3-2008-1776	CR-WF3-2008-1793	CR-WF3-2008-1946
CR-WF3-2008-1989	CR-WF3-2008-2027	CR-WF3-2008-2347	CR-WF3-2008-4495
CR-WF3-2009-4959	CR-WF3-2009-4969		

MISCELLANEOUS

<u>TITLE</u>	<u>DATE</u>
Waterford 3 Refuel Reactor Coolant System Dose Equivalent Iodine Reactor Coolant System Cleanup Flow Chart 5-Year ALARA Plan Refueling Outage 15 Report Failed Fuel Shutdown Mitigation Plan	September 10, 2009

Section 40A1: Performance Indicator Verification

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
NEI 99-02	Regulatory Assessment Performance Indicator Guideline	5
EN-LI-114	Performance Indicator Process	4

Section 40A2: Identification and Resolution of Problems

CONDITION REPORTS

CR-WF3-2008-4000	CR-WF3-2008-4748	CR-WF3-2008-5793	CR-WF3-2009-0089
CR-WF3-2009-0570	CR-WF3-2009-1416	CR-WF3-2009-2604	CR-WF3-2009-3294
CR-WF3-2009-0754	CR-WF3-2009-1446	CR-WF3-2009-2706	CR-WF3-2009-3651
CR-WF3-2009-0770	CR-WF3-2009-2136	CR-WF3-2009-	

WORK ORDERS

178225	51665138
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PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
	EFW System Health Report 1 st Quarter 2009	4/30/09