July 31, 2003

Mr. Theodore Sullivan
Vice President - Operations
Entergy Nuclear Northeast
James A. FitzPatrick Nuclear Power Plant
Post Office Box 110
Lycoming, NY 13093

SUBJECT: JAMES A. FITZPATRICK NUCLEAR POWER PLANT - NRC INTEGRATED INSPECTION REPORT 05000333/2003005

Dear Mr. Sullivan:

On June 28, 2003, the Nuclear Regulatory Commission (NRC) completed an inspection at your James A. FitzPatrick Nuclear Power Plant. The enclosed report documents the inspection findings, which were discussed on July 24, 2003 with Mr. O'Grady 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 and one self-revealing finding, both of very low safety significance (Green). Both findings were determined to involve a violation of NRC requirements. However, because of their very low safety significance and because both findings were entered into your corrective actions program, the NRC is treating the two findings as non-cited violations, in accordance with Section VI.A.1 of the NRC's Enforcement Policy.

If you deny the non-cited violations noted in this report, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region I; the Director, Office of Enforcement, and the NRC Resident Inspector at FitzPatrick.

Since the terrorist attacks on September 11, 2001, the NRC has issued five Orders and several threat advisories to licensees of commercial power reactors to strengthen licensee capabilities, improve security force readiness, and enhance controls over access authorization. In addition to applicable baseline inspections, the NRC issued Temporary Instruction (TI) 2515/148, "Inspection of Nuclear Reactor Safeguards Interim Compensatory Measures," and its subsequent revision to audit and inspect licensee implementation of the interim compensatory measures required by order. Phase 1 of TI 2515/148 was completed at all commercial power nuclear power plants during calendar year 2002, and the remaining inspection activities for FitzPatrick are scheduled for completion in calendar year 2003. The NRC will continue to monitor overall safeguards and security controls at FitzPatrick.

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

Sincerely,

/RA/

Glenn W. Meyer, Chief
Projects Branch 3
Division of Reactor Projects

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

Enclosure: Inspection Report 05000333/2003005
w/Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.:	50-333
License No.:	DPR-59
Report No.:	05000333/2003005
Licensee:	Entergy Nuclear Northeast
Facility:	James A. FitzPatrick Nuclear Power Plant
Location:	268 Lake Road Scriba, New York 13093
Dates:	March 30, 2003 - June 28, 2003
Inspectors:	L. M. Cline, Senior Resident Inspector D. A. Dempsey, Resident Inspector D. M. Silk, Senior Emergency Preparedness Inspector T. A. Moslak, Health Physicist P. R. Frechette, Physical Security Inspector G. C. Smith, Physical Security Inspector J. A. Talieri, Reactor Inspector
Approved by:	Glenn W. Meyer, Chief Projects Branch 3 Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000333/2003005; Entergy Nuclear Northeast; on 03/30/2003 - 06/28/2003; James A. FitzPatrick Nuclear Power Plant; Maintenance Rule and Problem Identification and Resolution.

The report covered a 13-week period of inspection by resident inspectors and regional specialist inspectors. Two Green non-cited violations (NCVs) were identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using IMC 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3 dated July 2000.

A. NRC-Identified and Self-Revealing Findings

Cornerstone: Mitigating Systems

- Green. The inspector identified a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI concerning the failure of the D residual heat removal (RHR) pump discharge check valve during the October 2002 refueling outage. The valve failure represented inadequate corrective action for a similar December 1996 A RHR check valve failure and involved an inappropriate deferral of corrective actions and planned engineering work which was lost track of.

  This finding is more than minor because it impacted the mitigating systems cornerstone objective of ensuring the availability and reliability of mitigating systems. During the refueling outage the failure of the D RHR pump discharge check valve could have prevented the B RHR train from performing its shutdown cooling safety function. At the time of the finding the plant was in the refuel mode, with both RHR shutdown cooling systems out of service for maintenance and the decay heat removal system in service. In accordance with NRC Manual 609, Appendix G, "Shutdown Operation Significance Determination Process," the finding is considered to be of very low safety significance because the shutdown cooling safety function was not significantly degraded. (Section 1R12)

Cornerstone: Barrier Integrity

- Green. A self-revealing non-cited violation of 10CFR 50, Appendix B, Criterion XVI was identified when the D inboard main steam isolation valve (MSIV) failed to close during fast-closure surveillance testing on March 20, 2003. This malfunction occurred because of ineffective corrective action for a May 2, 1997, 10 CFR 21 notification that addressed Automatic Valve Company (AVC) solenoid valve failures.

  This finding is more than minor because it affected the barrier integrity cornerstone objective of providing reasonable assurance of the functionality of containment. The failure of the MSIVs to close during an event could provide a release path for radio nuclides from the reactor coolant system to the environment. The finding is of very low safety significance because all of the remaining seven MSIVs closed during the fast closure surveillance testing, and thus the finding did not represent

an actual open pathway in the physical integrity of the reactor containment. (Section 4OA2)

B. Licensee Identified Violations

None.

REPORT DETAILS

Summary of Plant Status

With the exception of two planned down powers, the reactor operated at or near 100 percent power for the entire inspection period. On May 6 power was reduced to 75 percent for control rod sequence exchange and rod pattern adjustment. On June 14 power was reduced to 75 percent to clean main condenser water boxes and to perform a control rod sequence exchange.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection

a. Inspection Scope

The inspectors completed two adverse weather protection samples, a review of Entergy's actions during the April 2003 severe ice storm in Oswego County, and a verification of Entergy's summer weather preparations.

- From April 3 to April 7 a severe ice storm in Oswego County resulted in several abnormal conditions at the site, the two most significant being the loss of more than 50 percent of the Oswego County emergency sirens from April 3 to April 10, and the loss of one of two 115 kV offsite power lines from April 5 to April 7. For the out of service emergency sirens the inspectors verified that Entergy took action in accordance with the emergency plan supplemental action procedure (SAP), SAP-8, "Prompt Notification System Failure/Siren System False Activation," and made the appropriate NRC notifications. For the loss of one 115 kV offsite power source, the inspectors verified Entergy's actions in accordance with technical specification (TS) 3.8.1, Electrical Power Systems, AC sources - Operating. The inspectors also verified that during the storm Entergy took appropriate steps in accordance with their severe weather emergency procedure, SAP-19, "Severe Weather," to protect the safe shutdown capabilities of the plant.

- The inspector reviewed and verified completion of the operations department warm weather preparation checklist contained in procedure AP-12.04, "Seasonal Weather Preparations." The inspector reviewed the operating status of the reactor and turbine building cooling systems, reviewed the procedural limits and actions associated with elevated lake temperature, and walked down accessible areas of the buildings to assess the effectiveness of the ventilation systems. The walkdowns included discussions with operations and engineering personnel to ensure that they were aware of temperature restrictions and required actions. The following documents also were reviewed:

  - OP-51A, "Reactor Building Ventilation and Cooling System
  - OP-52, "Turbine Building Ventilation

- DBD-066, Design basis document (DBD) for the reactor building heating, ventilation and air conditioning (HVAC) systems"
- DBD-067, DBD for the turbine building HVAC systems"

b. Findings

No findings of significance were identified.

1R04 Equipment Alignments

a. Inspection Scope

Partial System Walkdowns. The inspectors performed three partial system walkdowns. To evaluate the operability of the redundant train for the selected systems while the affected train was inoperable, the inspectors compared system lineups to system operating procedures (OPs), system drawings, and the applicable chapters in the updated final safety analysis report (UFSAR). The inspectors also verified the operability of critical system components by observing component material condition during the system walkdown and reviewing the maintenance history for each component. The inspectors performed the partial walkdowns on the following systems:

- Train A core spray during performance of surveillance test procedure (ST)-3PB, "Core Spray Loop B Quarterly Operability Test," during the week of June 16.
- Train A residual heat removal service water (RHRSW) inspected on April 23, while train B RHRSW was out of service for a heat exchanger eddy current inspection.
- West crescent area unit coolers 66UC-22A, 66UC-22E, 66UC-22G, and 66UC-22J inspected on May 15, while west crescent area unit cooler 66UC-22C was out of service for emergency service water (ESW) piping and valve replacements.

The inspectors reviewed the following documentation:

- OP-13C, "RHRSW"
- OP-21, "ESW"
- DBD-046, DBD for the normal, emergency and residual heat removal service water systems
- OP-21, "Core Spray System"
- DBD-014, DBD for the core spray system

Complete System Walkdown. The inspectors performed a complete walkdown of the 125 Vdc electrical distribution system to identify any discrepancies between the existing equipment lineup and the required lineup. During the walkdown the procedure drawings were used to verify proper equipment alignment and operational status. The inspectors reviewed the open maintenance work requests (WRs) on the system for any deficiencies that could affect the ability of the system to perform its function. Documentation associated with unresolved design issues such as temporary modifications, operator workarounds, and items tracked by plant engineering were also reviewed to assess their collective impact on system operation. The documentation reviewed included:

- DBD-071, DBD for the 125 Vdc electrical distributions system"
- Mechanical Surveillance Test Procedure (MST)-071.26, "Station Battery A Modified Performance Test"
- MST-071.13, "125 Vdc Station Battery Quarterly Performance Test"
- MST-071.27, "Station Battery Charger Performance Test"
- JENG-01-0038, "A Station Battery Capacity Analysis"
- OP-43A, "125 Vdc Power System"

b. Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

The inspectors toured areas important to reactor safety to evaluate conditions related to: (1) Entergy's control of transient combustibles and ignition sources; (2) the material condition, operational status, and operational lineup of fire protection systems, equipment and features; and (3) the fire barriers used to prevent fire damage or fire propagation. The inspectors used administrative procedures (AP)-14.01, "Fire Protection Program," and AP-14.02, "Combustibles and Flammable Material Control" in conducting the inspection.

The areas inspected included:

- West cable tunnel, fire area 1C/zone CT-1
- East cable tunnel, fire area 02/zone CT-2
- North and south emergency pump rooms, fire area 12/zone SP-1 and Area XIII/zone SP-2
- Screenwell house, elevation 272, fire area 1B/zone SH-1
- Diesel fire pump rooms, fire area 1B/Zones FP-1 and FP-2
- Reactor building, east, elevation 300 feet, fire area 08/zone RB-1C
- Reactor building, east crescent area, elevation 227 feet, fire area 17/zone RB-1E
- Standby gas filter room, elevation 272 feet, fire area 20/zone SG-1
- Reactor building, east, elevation 300 feet, fire area 09/zone RB-1A
- Reactor building, west, elevation 300 feet, fire area 10/zone RB-1B

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures

a. Inspection Scope

The inspectors completed the following two flood protection inspection samples:

- The inspectors reviewed the FitzPatrick's Individual Plant Examination (IPE) and the UFSAR concerning internal flooding events. The inspection included walkdowns of the areas in which flooding could have the greatest impact on risk, including the relay room, the battery rooms, and the reactor building crescent rooms. The inspector also verified the validity of the following assumptions made in the IPE regarding water flow between the crescent areas during a flooding scenario: the floor and equipment drain configuration for both crescent areas, the availability of crescent area water level indications including control room alarms, and the expected operator response to control room alarms.

- The inspectors reviewed provisions taken by Entergy to protect vital 125 Vdc and 600 Vac motor control centers (MCCs) from water spray. Modification M1-92-331 installed drip shields and breaker compartment gaskets in the MCCs in response to a water intrusion event that rendered the high pressure coolant injection (HPCI) system inoperable in 1986. The inspectors walked down the MCCs and reviewed the following documents:

    - General Electric Service Information Letter No. 63, "Protective Splash Shields On Water Lines"
    - Drawing 11825-1.43-226, "Drip Shield Fabrication and Installation Details for Safety and Non-Safety Related MCCs"
    - LER 50-333/86-021, "HPCI System Inoperable Due to Water Intrusion Into Battery MCC"

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance

a. Inspection Scope

Annual Sample. The inspectors reviewed the testing and evaluation of test results for the crescent area and electric bay unit coolers. ST-8Q, "Testing of the ESW System," is performed on a quarterly basis to verify area cooler performance. Performance data were reviewed to verify that heat exchanger operation was consistent with design.

Biennial Sample. The inspectors reviewed the performance testing and processes designed to verify that the following heat exchangers could perform their design functions as intended:

- Emergency diesel generator (EDG) jacket water heat exchangers
- Electrical bay unit coolers
- Crescent area unit coolers

These heat exchangers provide safety-related cooling to the EDGs and air conditioning to the safety-related electrical bays and emergency core cooling pump areas.

To ensure compatibility with commitments made in response to Generic Letter 89-13, "Service Water System Problems Affecting Safety-Related Equipment," the inspector reviewed Entergy's inspection, cleaning, and performance monitoring methods. The inspector compared ST and inspection data to the established acceptance criteria to verify that the results were acceptable and that operation was consistent with design. The inspector walked down the selected heat exchangers to assess material condition. The inspector reviewed Entergy's methods for controlling biotic fouling, including hypochlorite injection and the zebra mussel growth monitoring program. The inspector also reviewed a sample of condition reports (CRs) related to the selected heat exchangers to verify that Entergy was appropriately identifying, characterizing, and correcting problems related to these components.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program

a. Inspection Scope

On April 29 the inspectors observed licensed operator simulator training to assess operator performance during a scenario involving an unanticipated reduction in reactor water recirculation system (RWR) flow that resulted in an RWR pump seal failure and a failure of several control rods to insert during the subsequent reactor shutdown. The inspectors evaluated the performance of risk significant operator actions, including the use of emergency operating procedures (EOPs), EOP-2, "Reactor Pressure Vessel Control" and EOP-3, "Failure to Scram." The inspectors assessed the clarity and effectiveness of communications, the implementation of appropriate actions in response to alarms, the performance of timely control board operation and manipulation, and the oversight and direction provided by the shift manager. The inspector also reviewed simulator fidelity to evaluate the degree of similarity to the actual control room.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness

a. Inspection Scope

The inspectors reviewed performance-based problems involving selected in-scope structures, systems, or components (SSCs) to assess the effectiveness of the maintenance program. Reviews focused on: (1) proper maintenance rule scoping, in accordance with 10 CFR 50.65; (2) characterization of reliability issues; (3) charging system and component unavailability; (4) 10 CFR 50.65 (a)(1) and (a)(2) classifications; (5) identifying and addressing common cause failures, (6) trending key parameters, and (7) the appropriateness of performance criteria for SSCs classified (a)(2) and the adequacy of

goals and corrective actions for SSCs classified (a)(1). The inspectors reviewed system health reports, maintenance backlogs, and maintenance rule basis documents. The following maintenance rule samples were reviewed:

- Reactor manual control system, system 3
- Residual heat removal (RHR), system 10
- 30 elective maintenance backlog items for components within the scope of the maintenance rule for the reactor core isolation cooling (RCIC), service water, reactor building ventilation, fire protection, and standby gas treatment systems.

The inspectors reviewed the following:

- JAF-RPT-CRD-02275, "Maintenance Rule Basis Document for Reactor Manual Control System"
- PME-0116, "Preventive Maintenance Evaluation for Check Valves"
- JAF-RPT-RHR-02281, "Maintenance Rule Basis Document for RHR System"

b. Findings

Introduction. The inspector identified a Green non-cited violation of 10 CFR 50, Appendix B, Criterion XVI concerning the repetitive failure of the D RHR pump discharge check valve during the October 2002 refueling outage.

Description. On October 14, 2002, in the process of securing the B RHR loop, the B and D RHR pumps, for refueling outage maintenance, operators could not maintain pressure in the B RHR loop with the keep-fill or condensate transfer systems. System indications suggested that the D RHR pump discharge check valve was not fully seated. With this check valve inoperable the keep-fill and condensate transfer system water supplied to the B RHR loop drained directly into the torus via the D RHR pump. To address this condition, operators shut the D pump discharge valve allowing the B RHR loop to be refilled. Upon inspection during outage maintenance, mechanics found the disk hanger arm for the D RHR pump discharge check valve broken and both the disk and hanger arm lying in the bottom of the valve. The failure analysis attributed the D RHR pump check valve failure to rotational forces, high impact loading, and casting porosity at the location of the break.

The disk hanger arm of the A RHR pump discharge check valve had failed in a similar fashion in December 1996, as documented in deviation and event report (DER) 96-01724. That failure was attributed to fatigue due to high impact loading and casting porosity in the hanger arm. At that time the condition of the other three RHR pump discharge check valve hanger arms was verified by visual inspection and the long-term corrective action specified designing and procuring new-style hanger arms to prevent this type of failure in the future. In 1998, DER 96-01724 was closed based on receipt of newly designed hanger arms and the initiation of work orders to install them under modification D1-98-019 during the next scheduled six-year preventive maintenance window in December 2002. Based on its failure prior to that, the deferral of these corrective actions was inappropriate.

Following the failure of the D discharge check valve in October 2002, Entergy determined that modification D1-98-019 had never been written. Therefore, Entergy decided to promptly replace the hinge arms in the D and B check valves, the valves with the longest service time, with old-style hinge arms that were radiographed to identify potential casting defects, and to install the new-style hinge arms in the A and C check valves in the next maintenance window in December 2002. In December 2002, the replacement hinge arms were still not available for installation, and the modification documentation was not complete. At that point Entergy rescheduled the maintenance for October 2003, but did not perform an evaluation for continued operability to support the extension. At the request of the inspectors, Entergy performed an engineering evaluation of the impact of this extension on the operability of the A and C check valves, and concluded that the check valves would remain operable until the next scheduled maintenance window in October 2003.

Analysis. As a result of ineffective long-term corrective action for the 1996 check valve failure, the October 2002 failure was not prevented. This finding is more than minor because it impacted the Mitigating Systems Cornerstone objective of ensuring the availability and reliability of mitigating systems, in that the failure of the D RHR pump discharge check valve during the refueling outage could have prevented the B RHR train from performing its shutdown cooling safety function. On October 14, 2002, the plant was in the refuel mode with both RHR shutdown cooling systems out of service in preparation for maintenance and the decay heat removal system in service. Thus, in accordance with NRC Manual 609, Appendix G, "Shutdown Operation Significance Determination Process," Table 1, "BWR Refueling Operation with Reactor Coolant System level greater than 23 Feet," the finding is considered to be of very low safety significance (Green) because the core heat removal requirements were not significantly degraded. At the time of the event, the reactor cavity was flooded greater than 23 feet, the time to boil was long, both trains of alternate decay heat removal were in service, the B core spray train was available, and the B RHR train was promptly restored.

Enforcement. 10 CFR 50, Appendix B, Criterion XVI requires corrective actions be taken to preclude repetition of significant conditions adverse to quality. Following the failure of A RHR pump discharge check valve in 1996, effective corrective actions to prevent recurrence were not implemented resulting in another similar check valve failure in October 2002. Because the violation is of very low significance (Green) and Entergy entered the deficiency into their corrective action program as CR-2003-03592, this finding is being treated as a non-cited violation, consistent with Section VI.A of the Enforcement Policy, issued May 1, 2000 (65FR25368). **(NCV 50-333/03-05-01)**

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

a. Inspection Scope

For the selected WRs listed below, the inspectors verified: (1) risk assessments were performed in accordance with AP-10.10, “On-line Risk Assessment,” (2) risk of scheduled work was managed through the use of compensatory actions and schedule adherence; and (3) applicable contingency plans were properly identified in the integrated work schedule.

- WR 03-06223-00 to inspect/repair ESW pump A discharge check valve 46ESW-1A during the week of May 26.
- WR 01-06205-00 to repair west electric bay cooler 67UC-16A loop A supply check valve 46ESW-19A during the week of May 26.
- WR 03-07188-01 to repair water leakage into the upper oil reservoir of service water pump 46P-1B during the week of June 16.
- WR 02-01120-00 to modify piping to facilitate inservice testing of service water check valves 46SWS-60A and 46SWS-60B during the week of May 26.
- WR 02-03041-00, WR 03-03022-00, WR 03-03416-00 for the planned maintenance window on the A EDG the week of June 4.
- WR 00-06821-33, for the HPCI overspeed test equipment permanent modification installation during the week of May 17.
- WR 02-02030-00, for west crescent area unit cooler 66UC-22C ESW piping and valve replacements the week of May 12.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed operability determinations to assess the correctness of the evaluations, the use and control of compensatory measures if needed, and compliance with technical specifications. The inspectors' review included a verification that the operability determinations were made as specified by AP-03.11, "Operability Determinations." The technical adequacy of the determinations was reviewed and compared to technical specifications, the final safety analysis report, and associated DBDs. The following evaluations were reviewed:

- JENG-REO-03-0011 concerning RHRSW and ESW pump operability under high ambient temperature conditions.
- JENG-REO-03-0013 concerning alternating current fuses in emergency diesel generator direct current control power circuits.
- CR-2003-02968 concerning RHRSW check valve back leakage.
- CR-2003-02075 concerning maintaining acceptable voltage levels on the no. 3 115kV offsite power line while the no. 4 offsite power line is removed from service for maintenance.
- CR-2003-02253 concerning the basis of continued operability of the A and C RHR pump discharge check valves when the extent-of-condition inspections for the D RHR pump discharge check valve failure were deferred from December 2002 to October 2003.

b. Findings

No findings of significance were identified.

1R16 Operator Workarounds

a. Inspection Scope

The inspectors completed two operator workaround inspection samples.

- The inspectors evaluated individual cumulative effects of identified operator workarounds on the functionality of the plant's mitigating systems. The workarounds were reviewed to determine: (1) if the functional capability of the system or human reliability in responding to an initiating event was affected; (2) the effect on the operator's ability to implement abnormal or emergency procedures; and (3) if operator workaround problems were captured in Entergy's corrective action program. The inspectors also reviewed Entergy's assessment of the cumulative effects of the identified workarounds in accordance with ST-99H, "Operator Work Arounds Assessment."

- The inspectors performed a detailed review of five OPs for potential safety significant workarounds not identified by Entergy. The procedures reviewed included:

  - OP-65, "Startup and Shutdown Procedure"
  - OP-1, "Main Steam System"
  - OP-3, "Condensate System"
  - OP-13, "RHR System"
  - OP-9, "Main Turbine"

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications

a. Inspection Scope

The inspector reviewed modification documents and observed the installation and testing of a 75 horsepower, 600 Vac overspeed test motor on the HPCI turbine in accordance with modification no. JD-02-188. The modification facilitates overspeed trip testing of the HPCI turbine without the need for auxiliary steam. The modification was completed under WR 00-06821-33. The post-modification testing included the satisfactory completion of MST-023.01, "HPCI Turbine Mechanical Overspeed Trip Test and Calibration."

b. Findings

No findings of significance were identified.

1R19 Post Maintenance Testing

a. Inspection Scope

The inspectors reviewed post-maintenance test procedures and associated testing activities for selected risk significant mitigating systems to assess whether: (1) the effect of testing on the plant had been adequately addressed by control room and engineering personnel; (2) testing was adequate for the maintenance performed; (3) acceptance criteria were clear and adequately demonstrated operational readiness, consistent with design and licensing basis documents; (4) test instrumentation had current calibrations, range, and accuracy for the application; (5) tests were performed, as written, with applicable prerequisites satisfied; and (6) that equipment was returned to the status required to perform its safety function. The following WRs were reviewed:

- WR 03-07188-01 involving repair of a water leak in service water pump 46P-1B motor oil reservoir during the week of June 16. The retest was performed by running the pump in accordance with OP-42, "Service Water System."

- WR 03-06223-00 involving inspection and repair of ESW system check valves during the week of May 26. The retest was performed using temporary surveillance test procedure (TST)-104, "Testing of ESW Loop A."

- WR 01-09304-01 involving leakage testing of HPCI pump suction valves 23MOV-57 and 23MOV-58 following diagnostic testing of valve 23MOV-58. The test was performed using ST-4I, "HPCI Torus Suction Valves Leak Rate Test" on May 21, and is required as part of Entergy's response to Generic Letter 96-06, "Assurance of Equipment Operability and Containment Integrity During Design -Basis Accident Conditions."

- WR 02-02030-00 involving ESW piping and valve replacements for the west crescent area unit cooler 66UC-22C during the week of May 12. The retest was performed using TST-104, "Testing of ESW Loop A."

- WR 02-03041-00, WR 03-03022-00, WR 03-03416-00 involving the planned maintenance window for the A emergency diesel generator the week of June 4. The retest was performed using ST-9BA, "EDG A and C Full Load Test and ESW pump operability test."

- WR 03-06885-00 involving the replacement of RCIC flow controller, 13FIC-91 the week of June 9. The retest was performed using ST-24J, "RCIC Flow Rate and Inservice test."

- WR 03-06408-00 involving the replacement of the rod insert permissive relay 03A-K8 due to an internal short the week of June 2. The retest was performed using ST-20C, "Control Rod Operability and Hydraulic Control Unit (HCU) Cooling Water Supply Check Valve Reverse Flow Check."

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

a. Inspection Scope

The inspectors witnessed performance of STs and reviewed test data of selected risk-significant SSCs to assess whether the SSCs satisfied technical specifications, UFSAR, technical requirements manual, and Entergy procedure requirements. The inspectors assessed whether the testing appropriately demonstrated that the SSCs were operationally ready and capable of performing their intended safety functions. The following tests were witnessed:

- ST-2AM, "RHR Loop B Quarterly Operability Test"
- ST-4N, "HPCI Quick Start, Inservice, and Transient Monitoring Test"
- ST-4I, "HPCI Torus Suction Valves Leak Rate Test"
- ST-9BB, "EDG B and D Full Load Test and ESW Pump Operability Test"
- ST-24J, "RCIC Flow Rate and Inservice Test"
- ST-20C, "Control Rod Operability and HCU Cooling Water Supply Check Valve Reverse Flow Check"

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications

a. Inspection Scope

The inspectors reviewed the three temporary modifications listed below. The inspectors assessed: (1) the adequacy of the 10 CFR 50.59 evaluation; (2) that the installation was consistent with the modification documentation; (3) that drawings and procedures were updated as applicable; and (4) the adequacy of the post-installation testing. The inspectors also reviewed the results of ST-99G, "Temporary Modification (TM) Monthly Audit"

- TM 03-014 involving level control of second stage reheater drain tank 31TK-4A
- TM 03-013 which provided position indication 48 for control rod 18-15 to compensate for a failed reed switch
- TM 03-002, which lifted power leads to fail open control and relay room ventilation temperature control valves 70TCV-10B and 70TCV-121B

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

1EP4 Emergency Action Level and Emergency Plan Changes

a. Inspection Scope

An emergency preparedness specialist performed an in-office review of recent changes to the emergency plan implementing procedures, including a detailed review of documents related to the risk significant planning standards (RSPS), such as classifications, notifications and protective action recommendations, and a general review of non-RSPS documents. The inspector verified that, in accordance with 10 CFR 50.54(q), the changes did not decrease the effectiveness of the plan, and as made, the changes met the standards of 10 CFR 50.47(b), the requirements of Appendix E, and the intent of NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants." The changes are subject to future NRC inspections to ensure that the results of the changes continue to meet NRC regulations.

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation

a. Inspection Scope

The inspectors observed portions of an emergency preparedness partial scale drill on May 1. The inspection focused on activities in the Emergency Operations Facility and the Joint News Center. The inspectors verified that emergency classification declarations and notification activities were properly completed.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS1 Access Control to Radiologically Significant Areas

a. Inspection Scope

The inspector performed the following activities to verify that Entergy was properly implementing physical, engineering, and administrative controls for access to locked high radiation areas, and other radiologically controlled areas (RCAs). Implementation of the access control program was reviewed against the criteria contained in 10 CFR 20, site technical specifications and Entergy's procedures.

- Keys to high radiation areas were inventoried and these areas were verified to properly secured and posted during plant tours.

- Independent radiation surveys were performed in RCAs of the reactor building, turbine building, and waste processing building to confirm the accuracy of posted survey results and to assess the adequacy of radiation work permits (RWP) and associated controls.

- The inspector attended pre-job RWP briefings and reviewed the exposure controls specified in the RWPs and the associated as-low-as-reasonably- achievable (ALARA) reviews (ARs) for the following jobs-in-progress. The inspector interviewed workers associated with these jobs regarding their knowledge of the RWP, electronic dosimetry set points, the work areas radiological conditions, and the individual's assigned task:

    - Removal of control rod blades from the storage rack and placement on spent fuel pool wall hangers (RWP 03-0045, AR 03-014)

    - Mitigation of steam leaks near turbine extraction steam valves 31MSR-145, 31MSR-619, and 31MSR-620 (RWP 03-0035, AR 03-011)

    - ESW pipe replacement at crescent area unit cooler 66UC-22C (RWP 03-0024, AR 03-03-020)

- The inspector interviewed the operations, mechanical maintenance, and instrumentation & control ALARA department coordinators and reviewed pertinent information regarding cumulative exposure history, departmental exposure trends and plant survey records to assess Entergy's effectiveness in establishing exposure goals and limiting worker dose. The inspector also reviewed status reports that detailed the effectiveness of hydrolasing and shielding installation in reducing system source terms.

b. Findings

No findings of significance were identified.

Cornerstone: Public Radiation Safety

2PS2 Radioactive Material Processing and Transportation

a. Inspection Scope

The inspector performed the following activities to verify that Entergy's radioactive material processing and transportation programs complied with the requirements of 10 CFR 20, 61, and 71and Department of Transportation (DOT) regulations contained in 49 CFR 170-189.

- The inspector walked down liquid and solid radioactive waste systems with the radwaste operations supervisor processing systems to verify that the current system configurations and operations agree with the descriptions contained in the UFSAR and the process control plan. As part of the walkdown, the status of inactive radioactive waste processing systems and a proposed radwaste system modification were discussed. Following the tour the inspector discussed the proposed system modification with the design engineer and reviewed the associated 10 CFR 50.59 screening evaluation.

- A tour was made with the decontamination supervisor of the interim waste storage facility to confirm the accuracy of material inventories, to evaluate the facilities material condition, and to verify that the radioactive material containers were properly labeled.

- The inspector reviewed the radio-chemical analysis results, required by 10 CFR 61.55 and 61.56 for each of the radioactive waste streams, including bead resin, powdered resin, and various mechanical filters to determine if scaling factors for difficult-to-measure radionuclides were properly developed and applied when classifying waste. The inspector interviewed the decontamination supervisor and the chemistry manager, and reviewed the relevant procedure to ensure that the waste stream composition data accounts for changing operational parameters, and thus remains valid between annual and biennial sample analysis updates.

- Five non-excepted radioactive material shipments were reviewed to determine that the packages complied with applicable NRC and DOT requirements. Included in this review were shipments of dewatered bead and powdered resin, Manifest Nos. 01-0456, 01-0457, 02-1135, and 03-1147, and assorted dry active waste/mechanical filters, Manifest No. 01-0455.

- The inspector observed the document preparation for disposal of 31 obsolete radioactive calibration sources. The inspector interviewed radworkers preparing the shipment to assess their knowledge and skills to ensure the shipment complied with applicable transportation regulations and burial site requirements.

- The inspector reviewed radwaste shipping logs, transport cask certificates of compliance, and the associated Entergy procedures to verify that material prepared for shipment met the requirements of the certificate of compliance. The inspector also verified that the cask loading and closure procedures were consistent with the vendor's current approved procedures.

- The inspector reviewed Entergy's 2002 annual effluent release report to assess the accuracy of the information regarding the types and amounts of radioactive waste disposed.

- The inspector verified that individuals responsible for radioactive waste processing and radioactive material shipment preparation activities met the training and qualification requirements of 49 CFR 172 Subpart H.

b. Findings

No findings of significance were identified.

3. SAFEGUARDS

Cornerstone: Physical Protection

3PP2 Access Control

a. Inspection Scope

The inspectors verified that Entergy maintained effective site access controls and equipment to detect and prevent the introduction of contraband into the protected area in accordance with 10 CFR 73.55(d) and the physical security plan and procedures. The inspectors observed site access control activities including personnel and package processing during peak ingress periods, vehicle searches, and the testing of all access control equipment including metal detectors, explosive material detectors, and X-ray examination equipment.

b. Findings

No findings of significance were identified.

3PP3 Response to Contingency Events

a. Inspection Scope

The following activities were performed to determine the effectiveness of Entergy's response to contingency events in accordance with 10 CFR 73.55 and the safeguards contingency plan.

- The inspectors reviewed documentation associated with Entergy's force-on-force exercise program. The review included documentation and critiques for exercises since the first quarter of 2002 when the exercises were resumed post-September 11th.

- The inspectors' performance tested FitzPatrick's intrusion detection and alarm assessment systems. The inspectors toured the entire site perimeter and tested potential areas of vulnerability in the intrusion detection system. The inspectors also observed the alarm assessment capabilities from the central alarm station. All zones of the intrusion detection system were tested.

b. Findings

No findings of significance were identified.

3PP4 Security Plan Changes

a. Inspection Scope

An in-office review was performed of revision 21 to Entergy's security plan. This document was submitted to the NRC on October 22, 2001, in accordance with the provisions of 10 CFR 50.54(p). The review confirmed that the changes were made in accordance with 10 CFR 50.54(p), and did not decrease the effectiveness of the plan. The NRC recognizes that some requirements contained in the Security Plan may have been superceded by the February 2002 interim compensatory measures order.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

40A1 Performance Indicator Verification

a. Inspection Scope

The inspectors reviewed performance indicator (PI) data for the below listed cornerstones and used NEI 99-02, "Regulatory Assessment Performance Indicator Guidance," to verify individual PI accuracy and completeness.

Reactor Safety Cornerstone

- Reactor coolant system activity
- Safety system unavailability, RHR
- Safety system unavailability, HPCI

The inspectors reviewed data and plant records from July 2002 to June 2003. The records reviewed included PI data summary reports, licensee event reports, operator narrative logs, and maintenance rule records. The inspectors verified the accuracy of the number of critical hours reported, and interviewed the system engineers and operators responsible for data collection and evaluation.

Physical Protection Cornerstone

- Fitness-for-duty/personnel reliability
- Protected area security performance index
- Personnel screening program

Inspectors reviewed the Entergy's tracking and trending, and security event reports, and interviewed those personnel responsible for the PI data collected from April 2002 through April 2003.

Emergency Preparedness Cornerstone

- Drill and exercise performance
- Emergency response organization (ERO) drill participation
- Alert notification system (ANS)

The inspector reviewed the Entergy's process for identifying the data for the three emergency preparedness PIs listed above. The review assessed data submitted to the NRC from July 2002 to March 2003. Classification, notification and protective action opportunities were reviewed from licensed operator simulator sessions and site ERO drills and exercises. Attendance records for drill and exercise participation was reviewed for completeness and accuracy. Test results of the ANS testing were also reviewed.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems

1. Annual Sample Review

a. Inspection Scope

The inspectors reviewed CR-2003-01354, main steam isolation valve (MSIV) 29AOV-80D failed to close during the performance of ST-1B, "MSIV Fast Closure Test," on March 20, 2003. The condition report was reviewed to ensure that Entergy identified the full extent of the issue, performed an appropriate evaluation, and specified adequate corrective action. The inspectors evaluated the report against the requirements of Entergy's corrective action program as described in Entergy procedure, ENN-LI-102, "Corrective Action Process," and 10 CFR Part 50 Appendix B.

b. Findings and Observations

Introduction. A Green self-revealing non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, was identified when the D inboard MSIV failed to close during fast-closure surveillance testing because Entergy failed to take adequate corrective action for a May 2, 1997, 10 CFR 21 notification that addressed Automatic Valve Company (AVC) solenoid valve failures.

Description. On March 20 a self-revealing finding was identified when the D inboard MSIV, 29AOV-80D, could not be fast closed during the performance of ST-1B, "MSIV fast closure test." Operators eventually slow closed the D inboard MSIV using the test switch, but when the switch was released the valve would not remain in the closed position. The other seven

MSIVs all closed normally. Trouble shooting determined that the failure of the AC pilot solenoid valve to reposition prevented the D inboard MSIV from closing. On March 22, 2003, the valve cluster that included the failed AC pilot solenoid valve for the D inboard MSIV was replaced and ST-1B was completed satisfactory following the maintenance.

Entergy's investigation determined that a buildup of black powder around the AC pilot solenoid valve plunger and significant deformation of one end of the plunger prevented it from repositioning to allow the MSIV to fast close. In 1997 Vermont Yankee (VY) found similar conditions in an AVC scram solenoid pilot valve that had failed. In 1997 AVC issued a 10 CFR 21 report that described the failure mechanism experienced at VY. Before the valve failed at VY, it was buzzing loudly when energized. AVC's analysis determined that buzzing was indicative of solenoid valve chattering that negatively impacted the life expectancy of the valve. The report recommended checking all installed AVC solenoid valves for buzzing and that defective products be replaced.

In June 1997 Entergy implemented a change to its maintenance procedure, MP-029.02, "MSIV Actuator Maintenance," to address this corrective action. This change did not account for the high level of background noise normally present in the drywell, and therefore did not detect the buzzing of the D inboard MSIV AC pilot solenoid valve during the testing for this solenoid valve cluster. As a result, the D inboard MSIV failed to fast close during the performance of ST-1B. Entergy replaced the failed solenoid valve, completed the ST-1B satisfactorily, and confirmed that no other solenoids were chattering. Entergy also revised the maintenance procedure to test for chattering by monitoring solenoid valve vibration rather than buzzing.

Analysis. The deficiency that resulted in the failure of the D inboard MSIV to fast close during surveillance testing was inadequate corrective action. This finding was greater than minor because it affected the barrier integrity cornerstone objective of providing reasonable assurance of the functionality of containment, in that the failure of the MSIVs to close during an event could provide a release path for radio nuclides from the reactor coolant system to the environment. The finding was of very low safety significance, because the remaining seven MSIVs closed as expected during the fast closure surveillance testing, which ensured that the containment isolation system was functional and that the objective of the barrier integrity cornerstone remained intact.

Enforcement. 10 CFR 50, Appendix B, Criterion XVI, Corrective Actions, requires that measures shall be established to assure that conditions adverse to quality, such as malfunctions, are promptly identified and corrected. Contrary to the above, due to inadequate corrective actions taken with respect to a 1997 PART 21 report regarding AVC solenoid valves, the D inboard MSIV failed to close during fast-closure surveillance testing. Because the violation is of very low significance (Green) and Entergy entered the deficiency into their corrective action program as CR-2003-03593, this finding is being treated as a non-cited violation, consistent with Section VI.A of the Enforcement Policy, issued May 1, 2000 (65FR25368). **(NCV 50-333/03-05-02)**

2. Routine PI&R Program Review

a. Inspection Scope

The inspectors performed a detailed review of 13 corrective action program items selected across the initiating events, mitigating systems, and barrier integrity cornerstones to evaluate the effectiveness of Entergy's corrective action program. The inspectors assessed Entergy's threshold for problem identification, the adequacy of its cause analyses and extend of condition reviews, and the timeliness of the corrective actions required by reviewing pertinent operators logs, WAs, engineering evaluations, ST results, and self-assessments, interviewing operators, engineers, and maintenance department personnel, and when possible, attending screening committee and review board meetings. The CRs are noted in the Attachment.

b. Findings

No findings of significance were identified.

3. Cross-References to PI&R Findings Documented Elsewhere

Section 1R12 describes a finding for failure to take effective corrective action to preclude failures of RHR pump discharge check valves.

4OA6 Meetings, including Exit

The inspectors presented the inspection results to members of Entergy's management at the conclusion of the inspection on July 24, 2003. Entergy acknowledged that no proprietary information was involved.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Entergy personnel

T. Sullivan, Vice President, Operations
B. O'Grady, General Manager, Plant Operations
B. Maguire, Director, Nuclear Safety
P. Berry, Manager, Training
J. Haley, Manager, Security
A. Halliday, Manager, Licensing
D. Johnson, Manager, Scheduling and Outages
O. Limpias, Director, Engineering
P. Russell, Manager, Operations
N. Avrakatos, Emergency Preparedness Coordinator
D. Ruddy, Manager, CA&A
K. Pushee, Manager, Radiation Protection

LIST OF ITEMS OPENED, CLOSED, OR DISCUSSED

Opened and Closed

50-333/03-05-01	NCV	RHR pump discharge check valve failure (Section 1R12)
50-333/03-05-02	NCV	MSIV, 29AOV-80D, failed to close during fast closure surveillance testing (Section 4OA2)

LIST OF DOCUMENTS REVIEWED

Section 1RO7: Heat Sink Performance

Condition Reports:

2002-01031, 2003-00496, 2003-00733, 2003-00829, 2003-00952

Design Basis Documentation:

DBD-066, Section 3.1.10, "Reactor Building HVAC Systems Unit Coolers"
DBD-067, Section 3.2, "Electrical Bays Ventilation and Cooling Systems"
DBD-093, Section 3.4.1, "EDG Jacket Water Heat Exchangers"

Other Documents:

UFSAR 9.7, “Service Water Systems”
ESW System Health Reports: 1Q2002, 2Q2002, 3Q2002, 4Q2002, 1Q2003
QA Surveillance Report 2337, “Heat Sink Performance,” dated April 11, 2003

JPN-90-015, “Response to NRC Generic Letter 89-13, ‘Service Water System Problems Affecting Safety-Related Equipment’” dated February 13, 1990; updated April 18, 1991 and March 16, 1993
JAF-RPT-MULTI_01267, “Raw Water Systems Program Plan (JAF-ACT-00-49081),” Revision 2
ST-8Q, “Testing of the ESW System”
TST-104, “Testing of ESW Loop A”
FM-46B, “Flow Diagram: ESW System 46 and 15"
Visual/Eddy Current Exams of EDG Jacket Water Heat Exchangers
AP-09.02, “Zebra Mussel Control Program”

Section 1EP4: Emergency Action Level and Emergency Plan Changes

Emergency Plan, Section 4,
IAP-1, “Emergency Plan Implementation Checklist,” Revision 29
EAP-1.1, “Offsite Notifications,” Revision 47
EAP-2, “Personnel Injury,” Revision 26
EAP-4.1, “Release Rate Determination,” Revision 15
EAP-8, “Personnel Accountability,” Revision 61
EAP-17, “Emergency Organization Staffing,” Revision 105
EAP-43, “Emergency Facilities Long Term Staffing,” Revision 60
SAP-2, “Emergency Equipment Inventory,” Revision 35

Section 2OS1: Access Control to Radiologically Significant Areas

Procedures:

AP-07.00, “Radiation Protection Program”
AP-07.01, “Radiation Work Permit Program”
AP-07.03, “ALARA Program”
AP-07.05, “Exposure Monitoring and Radiological Controls for Site & RCA Access”
AP-07.06, “High Radiation Area Control”
RP-OPS-02.02, “Radiation Work Permit”
RP-OPS-02.03, “High Radiation Area Access and Key Control”
RP-OPS-02.04, “Personnel Radiological Hold”
RP-OPS-03.01, “Radiological Survey Performance and Documentation”
RP-OPS-03.03, “Radiological Posting and Labels”
RP-OPS-03.05, “Refuel Floor and Drywell Radiological Controls”
RP-OPS-08.01, “Routine Surveys and Inspections”
RP-ALARA-01.01, “ALARA Review”

Condition Reports:

2003-02288, 2003-01882, 2003-01308, 2003-01105, 2003-00923, 2003-00914, 2003-00852, 2003-00782, 2003-00660, 2003-00656, 2003-00602, 2003-00569, 2003-00419, 2003-00390, 2003-00335, 2003-00296, 2003-00280, 2002-05743, 2002-05205

Radiation Protection Department Self-Assessments:

"Radiation Protection Focused Self-Assessment, Radiation Dose Control, 2/24 -28/03"

Quality Assurance Surveillance Reports:

SR-2340, "Locked High Radiation Area, RWP Briefings, Key Control, Operating Experience"

Quality Assurance Audit:

"Maintenance Program Audit and Activities Associated with RO-15"

Other Documents:

R-16, "Dose Reduction Initiatives"
R-16, "Source Control Status"
In-Progress ALARA Review for Remove/Replace A RWCU Pump
Steam Affected Area Performance Team Meeting Sequence of Events for mitigating steam leaks on Valves31FE-1EDPT-1/31MRS-619 AND 31MSR-145
JENG-02-0434, "Post RO-15 Spent Fuel Pool Inspections"

Section 2PS2: Radioactive Material Processing and Transportation

Procedures:

RW-101, "Radioactive Waste Management Program"
RW-103, "Radioactive Waste Tracking Procedure"
RW-104, "Scaling Factors"
RW-105, "Process Control Program"
RP-OPS-05.03, "CNS 14-195H Cask Handling Procedure"
RP-OPS-05.04, "Radioactive Waste Data Base Control Program"
RP-OPS-05.11, "Dry Active Waste Handling and Packaging"
RP-OPS-06.01, "Process Control Program"

Manifest Reviews:

Shipment No. 03-1147, "Dewatered Powder Resin, Type A, LSA-II"
Shipment No. 02-1135, "Dewatered Powder Resin, Type A, LSA-II"
Shipment No. 01-0455, "CRD filter/DAW, Type A, LSA-II"
Shipment No. 01-0456, "Dewatered Powder Resin, Type B, Class B"
Shipment No. 01-0457, "Dewatered Powder Resin, Type A, LSA-II"

Radiation Protection Department Self Assessments:

JTRG-01-084, “Shipping Qualifications Training,” dated June 2001
JRP-01-164, “Shipment Paperwork Review 1/2000-6/2001,” dated July 2001
JRP-01-106, “Sealand Material Storage on-site,” dated July 2001
JRP-01-102, “Representative Resin Sampling”
JRP-02-095, “Radioactive Material Receipt,” dated May 2002

Quality Assurance Audits:

A03-01J, “Process Control Program”
A02-04J, “Process Control Program”

Quality Assurance Surveillance Reports:

2326, 2287, 2328, 2222

Condition Reports:

2003-01172, 2002-02076, 2002-04997, 2002-01589, 2002-01618, 2002-01619, 2002-00548, 2001-03432

50.59 Screening Evaluations:

Rad waste systems improvement project JD-97-073

Safety Analysis Reports:

Model CNS 8-120B Type B Shipping Package
Model CNS 14-195H Type A Shipping Package

Sections 3PP2and 3PP3: Access Control and Response to Contingency Events

“Physical Security and Fitness for Duty Program Audit,” A02-075, dated July 8, 2002
Safeguards Event Log, March 2002 - March 2003.
“J. A. FitzPatrick Physical Security Plan,” Revision 21
“J. A. FitzPatrick Plant Access Training,” Revision 1

Section 4OA2: Identification and Resolution of Problems

Condition Reports

2003-02104, Industry operating experience review - standing water in torus vent header system
2003-02269, Technical support center surveillance test failure
2000-06351, Fire door binding and not self-closing
2003-01787, Station battery design results in operator work around

2003-02253, Extension of RHR check valve preventive maintenance without operability review
2002-04351, RHR pump discharge check valve not seating
2001-04649, Condensate pump minimum flow valves not operating as designed
2003-01581, Recurring failure of service water check valves
2003-02911, High vibration on the A standby gas treatment fan
2003-02550, Equipment qualification memo does not adequately support motor operability
2003-02943, AC fuses in diesel generator DC control power circuits
2003-02723, Estimate of remaining service life for 10MOV-89A/B may be non-conservative
2003-02408, Leakage test of 23MOV-57 and 23MOV-58 not performed are properly planned

LIST OF ACRONYMS

AP	administrative procedure
ALARA	as low as reasonably achievable
AR	ALARA review
ANS	alert and notification system
AVC	Automatic Valve Company
CR	condition report
DBD	design basis document
DER	deviation and event report
DOT	department of transportation
EDG	emergency diesel generator
EOP	emergency operating procedure
ERO	emergency response organization
ESW	emergency service water
HCU	hydraulic control unit
HPCI	high pressure coolant injection
HVAC	heating, ventilation and air conditioning
IPE	individual plant examination
kV	kilovolt
MCC	motor control center
MST	mechanical surveillance test procedure
MSIV	main steam isolation valve
NCVs	non-cited violations
NRC	Nuclear Regulatory Commission
OP	operating procedure
PI	performance indicator
RCA	radiologically controlled area
RCIC	reactor core isolation cooling
RHR	residual heat removal
RHRSW	residual heat removal service water
RSPS	risk significant planning standard
RWP	radiation work permit
RWR	reactor water recirculation
SDP	significance determination process
SSC	systems, structures and components

SAP	supplemental action procedure
ST	surveillance test procedure
TI	temporary instruction
TS	technical specification
TST	temporary surveillance test procedure
TM	temporary modification
UFSAR	updated final safety evaluation report
Vac	volts, alternating current
Vdc	volts, direct current
WR	work request