



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I**
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

August 7, 2012

Mr. Michael J. Colomb
Site Vice President
Entergy Nuclear Northeast
James A. FitzPatrick Nuclear Power Plant
P. O. Box 110
Lycoming, NY 13093

**SUBJECT: JAMES A. FITZPATRICK NUCLEAR POWER PLANT - NRC INTEGRATED
INSPECTION REPORT 05000333/2012003**

Dear Mr. Colomb:

On June 30, 2012, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your James A. FitzPatrick Nuclear Power Plant (FitzPatrick). The enclosed inspection report documents the inspection results which were discussed on July 20, 2012, with you and other members of your staff.

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

The report documents two self-revealing findings of very low safety significance (Green). Both of these findings were determined to involve violations of NRC requirements. However, because of the very low safety significance and because they are entered into your corrective action program, the NRC is treating these findings as non-cited violations (NCVs) consistent with Section 2.3.2 of the NRC Enforcement Policy. If you contest any NCVs in this report, you should provide a response within 30 days of the date of the inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN.: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region I; the Director, Office of Enforcement; United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Senior Resident Inspector at FitzPatrick. In addition, if you disagree with the cross-cutting aspect assigned to any finding in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region I, and the NRC Senior Resident Inspector at FitzPatrick.

In accordance with 10 CFR Part 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the

M. Colomb

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Sincerely,

/RA/

Mel Gray, Chief
Reactor Projects Branch 2
Division of Reactor Projects

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

Enclosure: Inspection Report 05000333/2012003
w/Attachment: Supplementary Information

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U.S. NUCLEAR REGULATORY COMMISSION**REGION I**

Docket No.: 50-333

License No.: DPR-59

Report No.: 05000333/2012003

Licensee: Entergy Nuclear Northeast (Entergy)

Facility: James A. FitzPatrick Nuclear Power Plant

Location: Scriba, New York

Dates: April 1 through June 30, 2012

Inspectors: E. Knutson, Senior Resident Inspector
B. Sienel, Resident Inspector
F. Arner, Senior Reactor Engineer
D. Kern, Senior Reactor Engineer
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Approved by: Mel Gray, Chief
Reactor Projects Branch 2
Division of Reactor Projects

Enclosure

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SUMMARY OF FINDINGS

IR 05000333/2012003; 04/01/2012 - 06/30/2012; James A. FitzPatrick Nuclear Power Plant (FitzPatrick); Maintenance Risk Assessment and Problem Identification and Resolution.

The report covered a three-month period of inspection by resident inspectors and announced inspections performed by regional inspectors. Inspectors identified two findings of very low safety significance (Green), both of which were non-cited violations (NCVs). The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). The cross-cutting aspects for the findings were determined using IMC 0310, "Components Within Cross-Cutting Areas." Findings for which the SDP does not apply may be Green, or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

Cornerstone: Initiating Events

- Green. The inspectors identified a self-revealing NCV of Technical Specification (TS) 5.4, "Procedures," because Entergy staff did not provide adequate procedures for installation of a plant modification to replace the reactor water recirculation (RWR) motor-generator (MG) scoop tube positioners during the 2010 refueling outage. Specifically, excessive torque was specified for use on positioner ball joint fasteners, which damaged one of the ball joints and resulted in subsequent binding during attempted operation. As a result, on November 11, 2010, the 'B' RWR MG scoop tube positioner bound when operators attempted to reduce pump speed, and released the following day which resulted in an unexpected power reduction of approximately 1.5 percent (40 megawatts thermal (MWt)). As immediate corrective action, control room operators reduced flow in the 'A' RWR loop to restore compliance with the TS requirement for balanced loop flow, then locked the scoop tubes for both RWR MGs pending further evaluation of the event. The issue was entered into the corrective action program (CAP) as condition report (CR)-JAF-2010-07782.

The finding was more than minor because it was similar to example 4.b in IMC 0612, Appendix E, "Examples of Minor Issues," in that it resulted in a plant transient. The finding also affected the Initiating Events cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors evaluated the finding using the Phase 1, "Initial Screening and Characterization," worksheet in Attachment 4 to IMC 0609, "Significance Determination Process." The inspectors determined the finding was not a loss of coolant accident or external events initiator, and did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. Therefore, the inspectors determined the finding to be of very low safety significance. The finding had a cross-cutting aspect in the area of Human Performance, Resources, because Design Engineering personnel did not ensure that accurate design documentation and procedures were available to assure successful implementation of the RWR MG scoop tube positioner modification [H.2(c)]. (Section 4OA2)

Cornerstone: Mitigating Systems

- Green. The inspectors identified a self-revealing NCV of TS 5.4, "Procedures," because Entergy personnel did not adequately implement procedures when removing the ventilation system for the 'A' emergency diesel generator (EDG) subsystem from service. Specifically, operators did not implement tagout placement instructions, which required that the affected EDGs be declared inoperable once the ventilation system was tagged out. Additionally, control room operators did not respond to the resultant 'A' EDG ventilation system common alarm in accordance with the alarm response procedure, which also would have led to the EDGs being declared inoperable. As a result, TS 3.8.1 was not entered in a timely manner and the TS surveillance requirement was not performed within the specified completion time. As immediate corrective action, the 'A' EDG subsystem was declared inoperable and the specified surveillance requirement was completed. The issue was entered into the CAP as CR-JAF-2012-02591.

The finding was more than minor because it affected the equipment performance attribute of the Mitigating Systems cornerstone objective to ensure the availability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the offsite electrical circuits were not verified available by operators for approximately three hours while the 'A' EDG subsystem was inoperable. The inspectors evaluated the finding using the Phase 1, "Initial Screening and Characterization of Findings," worksheet in Attachment 4 to IMC 0609, "Significance Determination Process." The inspectors determined this finding was not a design qualification deficiency resulting in a loss of functionality or operability, did not represent an actual loss of safety function of a system or train of equipment, and was not potentially risk significant due to external initiating events. Therefore, the inspectors determined the finding to be of very low safety significance. This finding has a cross-cutting aspect in the area of Human Performance, Work Practices, because operators did not follow procedures [H.4(b)]. (Section 1R13)

REPORT DETAILS

Summary of Plant Status

The James A. FitzPatrick Nuclear Power Plant (FitzPatrick) began the inspection period at 100 percent power. On April 1, 2012, operators reduced power to 13 percent to add oil to the 'B' reactor water recirculation (RWR) pump motor upper bearing reservoir and to identify and plug leaking main condenser tubes. Operators returned the unit to 100 percent power on April 3, 2012. On May 3, operators reduced power to 85 percent for a control rod pattern adjustment and returned the unit to 100 percent power later that day. On May 21, operators reduced power to 65 percent for a control rod sequence exchange and returned the unit to 100 percent power later that day. On June 7, operators reduced power to 65 percent for a control rod pattern adjustment and returned the unit to 100 percent power later that day. On June 14, operators reduced power to 50 percent to identify and plug leaking main condenser tubes. Operators returned the unit to 100 percent power the following day. On June 19, operators reduced power to 50 percent to identify and plug leaking main condenser tubes, perform control rod blade interference testing, and perform turbine valve testing. Operators returned the unit to 100 percent power on June 21, where it remained for the rest of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01 - 2 samples)

.1 Readiness for Seasonal Extreme Weather Conditions

a. Inspection Scope

The inspectors performed a review of FitzPatrick's readiness for the onset of seasonal high temperatures. The review focused on the control room ventilation system and the emergency diesel generator (EDG) ventilation system. The inspectors reviewed the Updated Final Safety Analysis Report (UFSAR), technical specifications, control room logs, and the corrective action program (CAP) to determine what temperatures or other seasonal weather could challenge these systems, and to ensure FitzPatrick personnel had adequately prepared for these challenges. The inspectors reviewed station procedures, including FitzPatrick's seasonal weather preparation procedure and applicable operating procedures. The inspectors performed walkdowns of the selected systems to ensure station personnel identified issues that could challenge the operability of the systems during hot weather conditions. Documents reviewed for each section of this inspection report are listed in the Attachment.

b. Findings

No findings were identified.

.2 Summer Readiness of Offsite and Alternate Alternating Current (AC) Power Systems

a. Inspection Scope

The inspectors performed a review of plant features and procedures for the operation and continued availability of the offsite and alternate AC power system to evaluate readiness of the systems prior to seasonal high grid loading. The inspectors reviewed FitzPatrick's procedures affecting these areas and the communications protocols between the transmission system operator and FitzPatrick. As there were no changes made to the procedures since the last inspection, this review focused on the material condition of the offsite and alternate AC power equipment. The inspectors evaluated the material condition of the associated equipment by interviewing the responsible system engineer, reviewing condition reports (CRs) and open work orders (WOs), and walking down portions of the offsite and AC power systems including the 115 kilovolt (KV) and 345 KV switchyards and transformers.

b. Findings

No findings were identified.

1R04 Equipment Alignment

Partial System Walkdowns (71111.04Q - 4 samples)

a. Inspection Scope

The inspectors performed partial walkdowns of the following systems:

- 'A' core spray (CS) system during 'B' residual heat removal (RHR) system maintenance on April 11, 2012
- 'A' RHR service water (RHRSW) system during 'B' RHR system maintenance on April 12, 2012
- 'A' and 'C' EDGs during 'B' EDG maintenance on April 18, 2012
- 'A' standby gas treatment (SBGT) system during 'B' SBGT maintenance on May 8, 2012

The inspectors selected these systems based on their risk-significance relative to the reactor safety cornerstones at the time they were inspected. The inspectors reviewed applicable operating procedures, system diagrams, the UFSAR, Technical Specifications (TSs), CRs, and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have impacted system performance of their intended safety functions. The inspectors performed field walkdowns of accessible portions of the systems to verify system components and support equipment were aligned correctly and were operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no deficiencies. The inspectors also reviewed whether Entergy staff had properly identified equipment issues and entered them into the CAP for resolution with the appropriate significance characterization.

b. Findings

No findings were identified.

1R05 Fire Protection.1 Resident Inspector Quarterly Walkdowns (71111.05Q - 5 samples)a. Inspection Scope

The inspectors conducted tours of the areas listed below to assess the material condition and operational status of fire protection features. The inspectors verified that Entergy personnel controlled combustible materials and ignition sources in accordance with administrative procedures. The inspectors verified that fire protection and suppression equipment was available for use as specified in the area pre-fire plan, and passive fire barriers were maintained in good material condition. The inspectors also verified that station personnel implemented compensatory measures for out of service, degraded, or inoperable fire protection equipment, as applicable, in accordance with procedures.

- Reactor building 300 foot elevation, fire area/zone VIII/RB-1C, IX/RB-1A, X/RB-1B, on April 25, 2012
- West cable tunnel 258 foot elevation, fire area/zone IC/CT-1, on April 26, 2012
- Reactor building east crescent area, fire area/zone XVII/RB-1E, on May 1, 2012
- South emergency diesel generator spaces 272 foot elevation, fire area/zones V/EG-1, EG-2, EG-5, on May 3, 2012
- West Switchgear Room 272 foot elevation, fire area/zone IC/SW-1, on May 18, 2012

b. Findings

No findings were identified.

1R06 Flood Protection Measures (71111.06 - 1 sample).1 Annual Review of Cables Located in Underground Bunkers/Manholesa. Inspection Scope

The inspectors conducted an inspection of underground bunkers/manholes subject to flooding that contain cables whose failure could disable risk-significant equipment. Specifically, the inspectors performed a walkdown of manhole M-1, which contains power cables to the 'C' RHR pump, to determine whether the cables were subjected to submergence in water, cable insulation appeared intact, and degradation of cable support structures due to environmental factors affected their functionality.

b. Findings

No findings were identified.

1R07 Heat Sink Performance

.1 Annual Review (711111.07A - 1 sample)

a. Inspection Scope

The inspectors reviewed the results of the emergency service water (ESW) system annual thermal performance test that was performed in June 2012 in accordance with ST-8Q, "Testing of the Emergency Service Water System (IST) [in-service test]," Revision 41. Specifically, the inspectors reviewed the test results for the coolers located in the east crescent area. The thermal performance test determines the maximum lake temperature at which individual unit coolers can be considered operable. Results that are less than the TS maximum allowable service water inlet temperature of 85 degrees Fahrenheit limit the plant's ability to operate with elevated lake temperatures until the cooler degradation is corrected. The inspectors noted that three of the five unit coolers in this area did not meet the 85 degree requirement with the most limiting, 66UC-22D, reaching 81 degrees. Engineering noted that the maximum average third quarter lake temperature is below 76 degrees. However, the inspectors verified that operators were monitoring lake temperatures and to declare degraded coolers inoperable if any of the limiting temperatures were reached.

b. Findings

No findings were identified.

.2 Triennial Review (71111.07T - 4 samples)

a. Inspection Scope

This inspection was focused on the safety related heat sink systems including the RHRSW and ESW systems, the intake water screenwell area with traveling screens, and the plant lake water intake structure condition. The inspectors observed the heat sink components including heat exchangers in the EDG rooms, the air coolers in the crescent rooms, the RHR heat exchangers, the control room heating, ventilation, and air conditioning (HVAC) chillers, the electric tunnel coolers and the cable tunnel coolers. The inspectors reviewed calculations for the RHR heat exchanger efficiency, intake system provisions to address frazil ice formation, and testing procedures for heat exchangers. The inspectors reviewed the welding process for the RHRSW Pump Strainer basket 10S-52B replacement assembly per WO 0028487. The conditions of the new and replaced assemblies were examined in the plant.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program

.1 Quarterly Review of Licensed Operator Requalification Testing and Training
(71111.11Q - 1 sample)

a. Inspection Scope

The inspectors observed licensed operator simulator training on May 1, 2012, which included the failure of a station transformer, an anticipated transient without scram, and the failure of other selected components to operate as required. The inspectors evaluated operator performance during the simulated event and verified completion of risk significant operator actions, including the use of abnormal and emergency operating procedures. The inspectors assessed the clarity and effectiveness of communications, implementation of actions in response to alarms and degrading plant conditions, and the oversight and direction provided by the control room supervisor. The inspectors verified the accuracy and timeliness of the emergency classification made by the shift manager and the technical specification action statements entered by the shift technical advisor. Additionally, the inspectors assessed the ability of the crew and training staff to identify and document crew performance problems.

b. Findings

No findings were identified.

.2 Quarterly Review of Licensed Operator Performance in the Main Control Room
(71111.11Q - 1 sample)

a. Inspection Scope

On April 1, 2012, the inspectors observed control room operators during a power reduction from 100 to 13 percent to facilitate a drywell entry to evaluate and correct indications of 'B' RWR pump motor bearing reservoir low oil level. The inspectors observed crew performance to verify that procedure use, crew communications, and coordination of activities between work groups met established expectations and standards.

b. Findings

No findings were identified.

.3 Biennial Review (71111.11B - 1 sample)

a. Inspection Scope

The following inspection activities were performed using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9, Supplement 1, and Inspection Procedure Attachment 71111.11, "Licensed Operator Requalification Program and Licensed Operator Performance."

Examination Results

Requalification exam results (operating tests) for year 2012 were reviewed to determine if pass/fail rates were consistent with the guidance of IMC 0609, Appendix I, "Operator Requalification Human Performance Significance Determination Process (SDP)."

- Crew pass rate was greater than 80 percent (pass rate was 100 percent)
- Individual pass rate on the dynamic simulator test was greater than 80 percent (pass rate was 100 percent)
- Individual pass rate on the job performance measures (JPMs) of the operating exam was greater than 80 percent (pass rate was 100 percent)
- More than 75 percent of the individuals passed all portions of the operating exam (pass rate was 100 percent)

Note: The facility staff previously administered the comprehensive written exams in April and May 2011.

Written Examination Quality

The inspectors reviewed a sample of comprehensive written exams that facility staff previously administered to the operators in April and May 2011.

Operating Test Quality

The inspectors reviewed operating tests and job performance measures associated with three different examination weeks.

Licensee Administration of Operating Tests

The inspectors observed facility training staff administer dynamic simulator exams and JPMs during the week of April 22, 2012. These observations included facility evaluations of crew and individual operator performance during the simulator exams and individual performance of JPMs.

Exam Security

The inspectors assessed whether facility staff properly safeguarded exam material, and whether test item repetition was excessive.

Remedial Training and Re-examinations

Remediation training and retests for two individuals who failed their respective 2011 comprehensive written exam were reviewed to assess the effectiveness of the training and adequacy of their re-examinations.

Conformance with License Conditions

License reactivation records were reviewed to ensure that 10 CFR 55.53 license conditions and applicable program requirements were met. The inspectors also

reviewed a sample of records for requalification training attendance, and a sample of medical examinations for compliance with license conditions and NRC regulations.

Simulator Performance

Simulator performance and fidelity were reviewed for conformance to the reference plant control room. A sample of simulator deficiency reports was also reviewed to ensure facility staff addressed identified modeling problems.

Problem Identification and Resolution

The inspectors reviewed recent operating history documentation found in inspection reports, licensee event reports (LERs), and CAP. The inspectors also reviewed specific events from FitzPatrick's CAP, which indicated possible training deficiencies, to verify that they had been appropriately addressed. The resident inspector staff was also consulted for insights regarding licensed operators' performance.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12Q - 3 samples)

a. Inspection Scope

The inspectors reviewed the samples listed below to assess the effectiveness of maintenance activities on structure, system, or component (SSC) performance and reliability. The inspectors reviewed system health reports, CAP documents, and maintenance rule basis documents to ensure that Entergy staff was identifying and properly evaluating performance problems within the scope of the maintenance rule. For each sample selected, the inspectors verified that the SSC was properly scoped into the maintenance rule in accordance with 10 CFR 50.65 and verified that the (a)(2) performance criteria established by Entergy staff was reasonable. For SSCs classified as (a)(1), the inspectors assessed the adequacy of goals and corrective actions to return these SSCs to (a)(2). Additionally, the inspectors ensured that Entergy staff was identifying and addressing common cause failures that occurred within and across maintenance rule system boundaries.

- Feedwater
- Reactor core isolation cooling (RCIC)
- Control room ventilation

b. Findings

No findings were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13 - 5 samples)a. Inspection Scope

The inspectors reviewed maintenance activities to verify that the appropriate risk assessments were performed prior to removing equipment for work. The inspectors reviewed whether risk assessments were performed as required by 10 CFR 50.65(a)(4), and were accurate and complete. When emergent work was performed, the inspectors reviewed whether plant risk was promptly reassessed and managed. The inspectors also walked down selected areas of the plant which became more risk significant because of the maintenance activities to ensure they were appropriately controlled to maintain the expected risk condition. The reviews focused on the following activities:

- Planned maintenance on the 'B' RHR and RHRSW systems during the week of April 9, 2012
- Planned maintenance on the 'B' EDG during the week of April 16, 2012
- Planned control rod pattern adjustment, intake cleaning, and 'A' EDG fire damper inspection the week of April 30, 2012
- Planned maintenance on the 'B' SBGT system on May 7, 2012
- Planned maintenance on the high pressure coolant injection (HPCI) system during the week of June 4, 2012

b. Findings

Introduction: The inspectors identified a self-revealing Green NCV of TS 5.4, "Procedures," because Entergy personnel did not follow procedures when removing the ventilation system for the 'A' EDG subsystem from service on May 3, 2012. Specifically, operators did not identify the 'A' EDG subsystem as inoperable in accordance with operating procedure OP-60, "Diesel Generator Room Ventilation," as specified in the tagout placement instructions when tagging out the ventilation system.

Description: At approximately 8:45 a.m. on May 3, 2012, the ventilation system for the 'A' EDG subsystem ('A' and 'C' emergency diesel generators) was removed from service to allow for the planned inspection of a ventilation supply fire damper. This rendered the 'A' EDG subsystem inoperable and required entry into TS 3.8.1, "AC Sources - Operating," Condition B, "One EDG subsystem inoperable." The required action for this condition is to perform Surveillance Requirement (SR) 3.8.1.1 for operable offsite circuits within one hour. The completion of SR 3.8.1.1 verifies correct breaker alignment and indicated power availability for each offsite circuit. However, FitzPatrick operators did not enter TS 3.8.1 at this time. Subsequently, at approximately noon that day, operators determined the EDG subsystem should have been declared inoperable when the tagout was hung. The TS action statement was then entered and the required one hour surveillance was performed satisfactorily within 15 minutes. Entergy staff entered this issue into the CAP as CR-JAF-2012-02591.

In the apparent cause evaluation, Entergy staff determined the TS limiting condition for operation (LCO) was not entered in a timely manner because the plant operator applying the tagout failed to do so in accordance with the tagout placement instructions, which stated, "Remove 'A' EDG ventilation from service per applicable section of OP-60 prior to hanging this tagout." OP-60, Section F, "Shutdown [of EDG room ventilation],"

requires the affected EDG subsystem to be declared inoperable. Entergy staff determined that had this procedure been properly used to remove the ventilation from service, the 'A' EDG subsystem would have been declared inoperable and the appropriate TS entered when the tagout was applied.

The inspectors determined that control room operators did not properly follow an associated alarm response procedure. Placement of the tagout had caused the common alarm in the control room for the 'A' EDG subsystem ventilation system to alarm. The last step of annunciator response procedure (ARP) 09-75-1-4, "EDG Vent System A Trouble," requires the operator to refer to TS. Per procedure EN-OP-115-08, "Annunciator Response," operators should have either reviewed the ARP for the control room alarm when the alarm came in or, because it was an expected alarm based on the work scheduled to be performed, should have reviewed the ARP prior to the work. In either case, the inspectors determined operators should have taken the required action to refer to TS and enter the appropriate LCO. The inspectors also noted that if the required action of TS 3.8.1 Condition B was not met within the associated completion time, Condition F required that the reactor be placed in Mode 3 (Hot Shutdown) within 12 hours. Although the operators did not meet Condition B, Condition F was not exceeded because the required action of Condition B was taken before the 12 hour completion time of Condition F expired.

Analysis: The inspectors determined this was a performance deficiency in that Entergy staff did not follow procedures during the removal of 'A' EDG subsystem ventilation from service in accordance with TS 5.4, "Procedures." The finding was more than minor because it affected the equipment performance attribute of the Mitigating Systems cornerstone objective to ensure the availability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the verification of offsite electrical circuit availability was delayed by operators for approximately three hours while the 'A' EDG subsystem was inoperable. The inspectors evaluated the finding using the Phase 1, "Initial Screening and Characterization of Findings," worksheet in Attachment 4 to IMC 0609, "Significance Determination Process." The inspectors determined this finding was not a design qualification deficiency resulting in a loss of functionality or operability, did not represent an actual loss of safety function of a system or train of equipment, and was not potentially risk significant due to external initiating events. Therefore, the inspectors determined the finding to be of very low safety significance (Green).

This finding has a cross-cutting aspect in the area of Human Performance, Work Practices, because Entergy operators did not follow operating and alarm response procedures [H.4(b)].

Enforcement: TS 5.4, "Procedures," states, in part, "Written procedures shall be established, implemented, and maintained covering . . . the applicable procedures recommended in Regulatory Guide (RG) 1.33, Appendix A, November 1972." RG 1.33, Appendix A, November 1972, Section I, "Procedures for Performing Maintenance," states, in part, "Maintenance which can affect the performance of safety-related equipment should be properly preplanned and performed in accordance with written procedures . . ." RG 1.33, Appendix A, November 1972, Section D, "Procedures for Startup, Operation, and Shutdown of Safety Related BWR [boiling water reactor] Systems," includes the onsite emergency power sources (EDGs) as a safety-related system.

Contrary to the above, on May 3, 2012, operators failed to follow operating procedure OP-60, "Diesel Generator Room Ventilation," Revision 8, during the removal of the 'A' EDG subsystem ventilation system from service, which rendered the 'A' EDG subsystem inoperable. In addition, control room operators did not respond to the resultant 'A' EDG subsystem ventilation system common alarm in accordance with the alarm response procedure, which also would have led to the EDGs being declared inoperable. As a result, TS 3.8.1, "AC Sources - Operating," Condition B, "One EDG subsystem inoperable," was not entered in a timely manner and TS surveillance requirement 3.8.1.1, to verify correct breaker alignment and indicated power availability for each offsite circuit, was not performed within the allowed completion time. Because this issue was of very low safety significance (Green) and it was entered into the CAP as CR-JAF-2012-02591, this finding is being treated as an NCV, consistent with the NRC Enforcement Policy. **(NCV 05000333/2012003-01, Failure to Follow Procedure During Removal from Service of Emergency Diesel Generator Ventilation)**

1R15 Operability Determinations and Functionality Assessments (71111.15 - 5 samples)

a. Inspection Scope

The inspectors reviewed operability determinations for the following degraded or non-conforming conditions:

- CR-JAF-2012-00584, on January 26, 2012, first time testing of the motor starter contactor for safety-related east crescent area unit cooler 66UC-22H (M) identified that it picked up at a higher voltage than required during design basis accident with degraded offsite power conditions; this brought into question the operability of three remaining safety-related unit coolers for which this testing had not yet been performed, on April 17, 2012
- CR-JAF-2011-05159 concerning the possible impacts of RCIC turbine steam admission valve 13MOV-131 seat leakage on RCIC system operability, on April 18, 2012
- CR-JAF-2012-02344 concerning the effect of high out of specification intercell connector resistance for multiple connections on operability of the 'B' low pressure coolant injection 419 volt direct current battery, on April 24, 2012
- CR-JAF-2012-02194 concerning the potential effect of not having performed HPCI turbine overspeed trip testing at the recommended periodicity on HPCI operability, on April 24, 2012
- CR-JAF-2012-02940 concerning operability of RCIC steam flow transmitter 13DPT-83 with as-found output readings out of tolerance during surveillance testing, on May 22, 2012

The inspectors selected these issues based on the risk significance of the associated components and systems. The inspectors evaluated the technical adequacy of the operability determinations to assess whether TS 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 TS and UFSAR to Entergy personnel'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 by Entergy personnel. The inspectors determined, where appropriate, compliance with bounding limitations associated with the evaluations.

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18 - 2 samples)

.1 Temporary Modifications

a. Inspection Scope

The inspectors reviewed the temporary modifications listed below to determine whether the modifications affected the safety functions of systems that are important to safety or represented transient initiators. As applicable, the inspectors reviewed 10 CFR 50.59 documentation and post-modification testing results, and conducted field walkdowns of the modifications to verify that the temporary modifications did not degrade the design bases, licensing bases, and performance capability of the affected systems.

- Engineering Change (EC) 36203, "Provide Alternate Oil Level Alarm Monitoring for 02-2P-1(B)"
- EC 23905, "Remove Protective Relay 71-21-UPRN05, Station Backup Protection Three Phase Distance Relay"

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19 - 6 samples)

a. Inspection Scope

The inspectors reviewed the post-maintenance tests (PMTs) for the maintenance activities listed below to verify that procedures and test activities ensured system operability and functional capability. The inspectors reviewed the test procedure to verify that the procedure adequately tested the safety functions that may have been affected by the maintenance activity, that the acceptance criteria in the procedure was consistent with the information in the applicable licensing basis and/or design basis documents, and that the procedure had been properly reviewed and approved. The inspectors also witnessed the test or reviewed test data to verify that the test results adequately demonstrated restoration of the affected safety functions.

- WO 00252990, to perform motor operator preventive maintenance on the 'B' RHR low pressure safety injection outboard injection valve, 10MOV-27B, on April 12, 2012
- WOs 52293173, 52293174, 52293181, 52293182, and 52293183, to replace 'B' SBGT system automatic initiation logic relays 01-125-3A3, 3A2, 3A1, 3D, 3B, and 3C-1SGTB01, on May 11, 2012

- WO 00284874, to perform a large-scale repair of 'B' RHRSW strainer, 10S-5B2, on May 17, 2012
- WO 00306931, to perform motor operator preventive maintenance on the 'A' ESW header isolation valve, 46MOV-101A, on May 24, 2012
- WO 52287102, to perform an inspection of the HPCI turbine, on June 11, 2012
- WO 00202501, to replace failed master trip unit 02MTU-223C, which provides primary containment isolation system trip system 'A' input to the main steam tunnel high temperature isolation function, on June 25, 2012

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22 - 7 samples)

a. Inspection Scope

The inspectors observed performance of surveillance tests (STs) and/or reviewed test data of selected risk-significant SSCs to assess whether test results satisfied technical specifications, the UFSAR, and station procedure requirements. The inspectors verified that test acceptance criteria were clear, tests demonstrated operational readiness and were consistent with design documentation, test instrumentation had current calibrations and the range and accuracy for the application, tests were performed as written, and applicable test prerequisites were satisfied. Upon test completion, the inspectors considered whether the test results supported that equipment was capable of performing the required safety functions. The inspectors reviewed the following STs:

- ISP-24A, "Rod Block Monitor Instrument Functional Test/Calibration," on April 5, 2012
- ST-22C, "ADS [automatic depressurization system] Logic System Functional Test," on April 27, 2012
- ISP-16, "Drywell Floor Drain Sump Flow Loop Functional Test/Calibration*," on May 15, 2012
- ISP-66-1B, "Scram Discharge Instrument Volume High Water Level Instrument Functional Test/Calibration**," on May 16, 2012
- ISP-251A, "RCIC Steam Line High Flow Transmitter Calibration (ATTS) [analog transmitter trip system] ," on May 22, 2012
- ST-24J, "RCIC Flow Rate and In-service Test (IST)," on May 22, 2012
- SP-01.02, "Reactor Water Sampling and Analysis," on June 19, 2012

b. Findings

No findings were identified.

Cornerstone: Emergency Preparedness

1EP2 Alert and Notification System Testing (71114.02 - 1 sample)

a. Inspection Scope

An onsite review was conducted to assess the maintenance and testing of the Alert and Notification System (ANS). During this inspection, the inspectors conducted a review of the ANS testing and maintenance programs. The inspectors reviewed the associated ANS procedures and the Federal Emergency Management Agency approved ANS Design Report to ensure compliance with design report commitments for system maintenance and testing. The inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 2. 10 CFR 50.47(b)(5) and the related requirements of 10 CFR 50, Appendix E, were used as reference criteria.

b. Findings

No findings were identified.

1EP3 Emergency Preparedness (EP) Organization Staffing and Augmentation System
(71114.03 - 1 sample)

a. Inspection Scope

The inspectors conducted a review of the FitzPatrick Emergency Response Organization (ERO) augmentation staffing requirements and the process for notifying and augmenting the ERO. The review was performed to verify the readiness of key FitzPatrick staff to respond to an emergency event and to verify FitzPatrick staff's ability to activate the emergency response facilities (ERF) in a timely manner. The inspectors reviewed the FitzPatrick Emergency Plan for ERF activation and ERO staffing requirements, the ERO duty roster, applicable station procedures, pager test reports, the 2010 drive-in drill report, and CRs related to this inspection area. The inspectors also reviewed a sample of ERO responder training records to verify training and qualifications were up to date. The inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 3. 10 CFR 50.47(b)(2) and related requirements of 10 CFR 50, Appendix E, were used as reference criteria.

b. Findings

No findings were identified.

1EP5 Correction of Emergency Preparedness Weaknesses (71114.05 - 1 sample)

a. Inspection Scope

The inspectors reviewed a sample of drill reports, quality assurance (QA) surveillances, a self-assessment, and EP-related CRs to assess FitzPatrick staff's ability to evaluate their EP program and ERO performance. The inspectors reviewed a sample of CRs initiated by the Entergy staff at FitzPatrick from drills, self-assessments, and surveillances from May 2010 through May 2012. A walk-down of the control room was conducted to inspect equipment important to emergency preparedness. The walk-down included an interview with a reactor operator to discuss compensatory measures for out-of-service equipment important to emergency preparedness. This inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 5. 10 CFR 50.47(b)(14) and the related requirements of 10 CFR 50, Appendix E, were used as reference criteria.

b. Findings

No findings were identified.

1EP6 Drill Evaluation (71114.06 - 1 sample)

.1 Training Observations

a. Inspection Scope

The inspectors observed a simulator training evolution for FitzPatrick licensed operators on May 1, 2012, which required emergency plan implementation by an operations crew. Entergy staff planned for this evolution to be evaluated and included in performance indicator (PI) data regarding drill and exercise performance. The inspectors observed event classification and notification activities performed by the crew. The inspectors also attended the post-evolution 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 Entergy evaluators noted the same issues and entered them into the CAP.

b. Findings

No findings were identified.

2. RADIATION SAFETY

Cornerstones: Occupational Radiation Safety and Public Radiation Safety

2RS1 Radiological Hazard Assessment and Exposure Controls (71124.01)

a. Inspection Scope

This area was inspected to: (1) review and assess FitzPatrick staff's performance in assessing the radiological hazards in the workplace associated with licensed activities and the implementation of appropriate radiation monitoring and exposure control measures for both individual and collective exposures, (2) verify FitzPatrick staff were properly identifying and reporting Occupational Radiation Safety Cornerstone performance indicators, and (3) identify those performance deficiencies that were reportable as a performance indicator and which may have represented a substantial potential for overexposure of the worker.

During the inspection, the inspectors interviewed the radiation protection manager, radiation protection supervisors, and radiation workers. The inspectors performed walk-downs of various portions of the plant, performed independent radiation dose rate measurements, observed work activities in radiological control areas and reviewed FitzPatrick's documents. The inspectors used the requirements in 10 CFR Part 20 and guidance in RG 8.38, "Control of Access to High and Very High Radiation Areas for Nuclear Plants," the TS, and FitzPatrick's procedures required by TS as criteria for determining compliance.

Inspection Planning

The inspectors reviewed the results of radiation protection program audits. The inspectors reviewed reports of operational occurrences related to occupational radiation safety since the last inspection.

Radiological Hazard Assessment

The inspectors determined if there had been changes to plant operations since the last inspection that may result in a significant new radiological hazard for onsite workers or members of the public. The inspectors evaluated whether FitzPatrick staff assessed the potential impact of these changes and has implemented periodic monitoring, as appropriate, to detect and quantify the radiological hazard.

The inspectors reviewed the last two radiological surveys from each level of the reactor building general areas, 'A' and 'B' reactor water clean-up pump rooms, and 'A' and 'B' RHR heat exchanger rooms. The inspectors evaluated whether the thoroughness and frequency of the surveys were appropriate for the given new radiological hazard.

The inspectors conducted walk-downs and independent radiation measurements in the facility, including the reactor building, turbine building, and radioactive waste processing, storage, and handling areas to evaluate material and radiological conditions.

Instructions to Workers

The inspectors reviewed two occurrences where a worker's electronic personal dosimeter noticeably malfunctioned or alarmed. The inspectors evaluated whether workers responded appropriately to the off-normal condition. The inspectors assessed whether the issue was included in the corrective action program and whether compensatory dose evaluations were conducted as appropriate.

Radiological Hazards Control and Work Coverage

The inspectors evaluated ambient radiological conditions and performed independent radiation measurements during the walk-down of the facility. The inspectors assessed whether the conditions were consistent with applicable posted surveys, radiation work permits, and associated worker briefings.

Risk-Significant High Radiation Area and Very High Radiation Area Controls

The inspectors discussed with the Radiation Protection Manager the controls and procedures for high-risk high radiation areas and very high radiation areas. The inspectors assessed whether any changes to FitzPatrick's relevant procedures substantially reduce the effectiveness and level of worker protection. The inspectors evaluated station controls for very high radiation areas and areas with the potential to become a very high radiation area to ensure that an individual was not able to gain unauthorized access to these very high radiation areas.

Radiation Worker Performance

The inspectors reviewed six radiological problem reports since the last inspection that found the cause of the event to be human performance errors. The inspectors evaluated whether there was an observable pattern traceable to a similar cause. The inspectors assessed whether this perspective matched the corrective action approach taken by FitzPatrick staff to resolve the reported problems.

Radiation Protection Technician Proficiency

The inspectors reviewed one radiological problem report since the last inspection that found the cause of the event to be radiation protection technician error. The inspectors evaluated whether there was an observable pattern traceable to a similar cause. The inspectors assessed whether this perspective matched the corrective action approach taken by FitzPatrick staff to resolve the reported problems.

Problem Identification and Resolution

The inspectors evaluated whether problems associated with radiation monitoring and exposure control were being identified by FitzPatrick staff at an appropriate threshold and were properly addressed for resolution in the corrective action program. The inspectors assessed the appropriateness of the corrective actions for a selected sample of problems documented by FitzPatrick staff that involve radiation monitoring and exposure controls. The inspectors assessed FitzPatrick staff's process for applying operating experience to their plant.

b. Findings

No findings were identified.

2RS2 Occupational As Low As is Reasonably Achievable Planning and Controls (71124.02 sample)

a. Inspection Scope

This area was inspected to assess performance with respect to maintaining occupational individual and collective radiation exposures As Low As is Reasonably Achievable (ALARA). The inspectors used the requirements in 10 CFR Part 20, RG 8.8, "Information Relevant to Ensuring that Occupational Radiation Exposures at Nuclear Power Plants will be As Low As is Reasonably Achievable," RG 8.10, "Operating Philosophy for Maintaining Occupational Radiation Exposure As Low As is Reasonably Achievable," the TS, and FitzPatrick's procedures required by TS as criteria for determining compliance.

Inspection Planning

The inspectors reviewed pertinent information regarding FitzPatrick staff's collective dose history, current exposure trends, and ongoing or planned activities in order to assess current performance and exposure challenges. The inspectors reviewed the plant's three year rolling average collective exposure. The inspectors compared the site-specific trends in collective exposures against the industry average values and those

values from similar vintage reactors. In addition, the inspectors reviewed any changes in the radioactive source term by reviewing the trend in average contact dose rate with recirculation piping. The inspectors reviewed site-specific procedures associated with maintaining occupational exposures ALARA, which included a review of processes used to estimate and track exposures from specific work activities.

Verification of Dose Estimates and Exposure Tracking Systems

The inspectors reviewed the assumptions and basis for the current annual collective exposure estimate for accuracy. The inspectors reviewed applicable procedures to determine the methodology for estimating exposures from specific work activities and for department and station dose goals.

The inspectors evaluated whether FitzPatrick staff had established measures to track, trend, and if necessary, to reduce occupational doses for ongoing work activities. The inspectors assessed whether dose threshold criteria were established to prompt additional reviews and/or additional ALARA planning and controls.

The inspectors evaluated FitzPatrick staff's method of adjusting exposure estimates, or re-planning work, when unexpected changes in scope or emergent work were encountered. The inspectors assessed whether adjustments to exposure estimates were based on sound radiation protection and ALARA principles or if they were just adjusted to account for failures to plan/control the work.

Source Term Reduction and Control

The inspectors used FitzPatrick's records to determine the historical trends and current status of plant source term known to contribute to elevated facility collective exposure. The inspectors assessed whether FitzPatrick staff had made allowances or developed contingency plans for expected changes in the source term as the result of changes in plant fuel performance issues or changes in plant primary chemistry.

Problem Identification and Resolution

The inspectors evaluated whether problems associated with ALARA planning and controls were being identified by FitzPatrick staff at an appropriate threshold and were properly addressed for resolution in the corrective action program.

b. Findings

No findings were identified.

2RS3 In-Plant Airborne Radioactivity Control and Mitigation (71124.03)

a. Inspection Scope

This area was inspected to verify in-plant airborne concentrations are being controlled consistent with ALARA principles and the use of respiratory protection devices on-site does not pose an undue risk to the wearer. The inspectors used the requirements in 10 CFR Part 20, the guidance in RG 8.15, "Acceptable Programs for Respiratory Protection," RG 8.25, "Air Sampling in the Workplace," NUREG-0041, "Manual of

Respiratory Protection Against Airborne Radioactive Material,” the TS, and FitzPatrick’s procedures required by TS as criteria for determining compliance.

Inspection Planning

The inspectors reviewed the UFSAR to identify areas of the plant designed as potential airborne radiation areas and any associated ventilation systems or airborne monitoring instrumentation. This review included instruments used to identify changing airborne radiological conditions such that actions to prevent an overexposure may be taken. The review included an overview of the respiratory protection program and a description of the types of devices used. The inspectors reviewed the UFSAR, TS, and emergency planning documents to identify location and quantity of respiratory protection devices stored for emergency use. The inspectors reviewed FitzPatrick’s procedures for maintenance, inspection, and use of respiratory protection equipment including self-contained breathing apparatus, as well as procedures for air quality maintenance.

Engineering Controls

The inspectors reviewed FitzPatrick’s use of permanent and temporary ventilation to determine whether the FitzPatrick staff uses ventilation systems as part of their engineering controls to control airborne radioactivity. The inspectors reviewed procedural guidance for use of installed plant systems to reduce dose and assessed whether the systems are used, to the extent practicable, during high-risk activities.

The inspectors selected two installed ventilation systems used to mitigate the potential for airborne radioactivity, and evaluated whether the ventilation system operating parameters, were consistent with maintaining concentrations of airborne radioactivity in work areas below the concentrations of an airborne area to the extent practicable. The inspectors selected one temporary ventilation system setup used to support work in contaminated areas. The inspectors assessed whether the use of the system is consistent with FitzPatrick procedural guidance and the ALARA concept.

The inspectors reviewed airborne monitoring protocols by selecting one installed system used to monitor and warn of changing airborne concentrations in the plant and evaluating whether the alarms and setpoints were sufficient to prompt FitzPatrick/worker action to ensure that doses are maintained within the limits of 10 CFR Part 20 and the ALARA concept. The inspectors assessed whether FitzPatrick staff had established threshold criteria for evaluating levels of airborne beta-emitting and alpha-emitting radionuclides.

Use of Respiratory Protection Devices

The inspectors assessed whether respiratory protection devices used to limit the intake of radioactive materials were certified by the National Institute for Occupational Safety and Health/Mine Safety and Health Administration or have been approved by the NRC. The inspectors reviewed records of air testing for supplied-air devices and self-contained breathing apparatus bottles to assess whether the air used in these devices meets or exceeds Grade D quality. The inspectors reviewed plant breathing air supply systems to determine whether they meet the minimum pressure and airflow requirements for the devices in use.

The inspectors selected five individuals qualified to use respiratory protection devices, and assessed whether they were deemed qualified to use the devices by successfully passing an annual medical examination, respirator fit-test, and relevant respiratory protection training. The inspectors selected three individuals assigned to wear a respiratory protection device and observed them donning, doffing, and functionally checking the device as appropriate. Through interviews with these individuals, the inspectors evaluated whether they knew how to safely use the device and how to properly respond to any device malfunction or unusual occurrence (loss of power, loss of air, etc.).

The inspectors chose four respiratory protection devices staged and ready for use in the plant. The inspectors assessed the physical condition of the device components and reviewed records of equipment inspection for each type of equipment. The inspectors selected several of the devices and reviewed records of maintenance on the vital components. The inspectors verified that vendor personnel assigned to repair respiratory protection equipment had received vendor-provided training.

Self-Contained Breathing Apparatus (SCBA) for Emergency Use

The inspectors reviewed the status and surveillance records of selected SCBAs staged in-plant for use during emergencies. The inspectors reviewed FitzPatrick staff's capability for refilling and transporting SCBA air bottles to and from the control room and operations support center during emergency conditions.

The inspectors selected three individuals on control room shift crews and from designated departments currently assigned emergency duties to assess whether control room operators and other emergency response and radiation protection personnel were trained and qualified in the use of SCBAs. The inspectors evaluated whether personnel assigned to refill bottles were trained and qualified for that task. The inspectors determined whether appropriate mask sizes and types were available for use. The inspectors determined whether on-shift operators had facial hair that would interfere with the sealing of the mask to the face and whether vision correction mask inserts were available as appropriate.

The inspectors reviewed the past two years of maintenance records for three SCBA units to assess whether any maintenance and repairs on any SCBA units were performed by an individual, or individuals, certified by the manufacturer of the device to perform the work. For those SCBAs that were ready for use, the inspectors verified the required, periodic air cylinder hydrostatic testing was documented and up to date.

Problem Identification and Resolution

The inspectors evaluated whether problems associated with the control and mitigation of in-plant airborne radioactivity were being identified by FitzPatrick staff at an appropriate threshold and were properly addressed for resolution in the corrective action program. The inspectors assessed whether the corrective actions were appropriate for a selected sample of problems involving airborne radioactivity and were appropriately documented.

b. Findings

No findings were identified.

2RS4 Occupational Dose Assessment (71124.04 - 1 sample)

a. Inspection Scope

This area was inspected to ensure occupational dose is appropriately monitored and assessed. The inspectors used the requirements in 10 CFR Part 20, the guidance in RG 8.13, "Instructions Concerning Prenatal Radiation Exposures," RG 8.36, "Radiation Dose to Embryo Fetus," RG 8.40, "Methods for Measuring Effective Dose Equivalent from External Exposure," TS, and FitzPatrick's procedures required by TS as criteria for determining compliance.

Inspection Planning

The inspectors reviewed the results of FitzPatrick radiation protection program audits related to internal and external dosimetry. The inspectors reviewed the most recent National Voluntary Laboratory Accreditation Program (NVLAP) accreditation report on FitzPatrick's vendor's most recent results to determine the status of the accreditation. A review was conducted of FitzPatrick procedures associated with dosimetry operations, including issuance/use of external dosimetry, assessment of internal dose, and evaluation of and dose assessment for radiological incidents. The inspectors evaluated whether FitzPatrick staff had established procedural requirements for determining when external dosimetry and internal dose assessments are required.

External Dosimetry

The inspectors evaluated whether the FitzPatrick's dosimetry vendor was NVLAP accredited and if the approved irradiation test categories for each type of personnel dosimeter used were consistent with the types and energies of the radiation present and the way the dosimeter was being used. The inspectors evaluated the onsite storage of dosimeters before issuance, during use, and before processing/reading. FitzPatrick does not use non-NVLAP accredited passive dosimeters.

The inspectors assessed the use of electronic personal dosimeters to determine if FitzPatrick staff use a "correction factor" to address the response of the electronic personal dosimeter as compared to the dosimeter of legal record for situations when the electronic personal dosimeter is used to assign dose and whether the correction factor is based on sound technical principles. The inspectors reviewed three dosimetry occurrence reports or corrective action program documents for adverse trends related to electronic personal dosimeters. The inspectors assessed whether FitzPatrick staff had identified any adverse trends and implemented appropriate corrective actions.

Internal Dosimetry

Routine Bioassay (In Vivo) - The inspectors reviewed procedures used to assess the dose from internally deposited radionuclides using whole body counting equipment. The inspectors evaluated whether the procedures addressed methods for differentiating between internal and external contamination, the release of contaminated individuals, determining the route of intake and the assignment of dose.

The inspectors reviewed the whole body count process to determine if the frequency of measurements was consistent with the biological half-life of the radionuclides available for intake.

The inspectors selected three whole body counts and evaluated whether the counting system used had sufficient counting time/low background to ensure appropriate sensitivity for the potential radionuclides of interest. The inspectors reviewed the radionuclide library used for the count system to determine if it included the gamma-emitting radionuclides that exist at the site. The inspectors evaluated how FitzPatrick staff accounts for hard-to-detect radionuclides in their internal dose assessments, if applicable.

Special Bioassay (In Vitro) - The inspectors selected one internal dose assessment obtained using whole body counting. There was no internal dose assessments obtained using urinalysis or fecal sample results for the inspectors to review.

Internal Dose Assessment - Airborne Monitoring - FitzPatrick staff had not performed any internal dose assessments using airborne/ derived air concentration monitoring during the period reviewed.

Internal Dose Assessment - Whole Body Count Analyses - The inspectors reviewed one dose assessment performed by FitzPatrick staff using the results of whole body count analyses. The inspectors determined whether affected personnel were properly monitored with calibrated equipment and that internal exposures were assessed consistent with FitzPatrick's procedures.

Special Dosimetric Situations

Declared Pregnant Workers - The inspectors assessed whether FitzPatrick staff informed workers, as appropriate, of the risks of radiation exposure to the embryo/fetus, the regulatory aspects of declaring a pregnancy, and the specific process to be used for (voluntarily) declaring a pregnancy. FitzPatrick staff had not documented any internal dose assessments for declared pregnant workers during this inspection period.

b. Findings

No findings were identified.

2RS8 Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation (71124.08 - 1 sample)

a. Inspection Scope

This area was inspected to verify the effectiveness of FitzPatrick's programs for processing, handling, storage, and transportation of radioactive material. The inspectors used the requirements of 10 CFR Parts 20, 61, and 71, and 10 CFR Part 50, Appendix A, Criterion 63, "Monitoring Fuel and Waste Storage," and FitzPatrick procedures required by the TS and process control program (PCP) as criteria for determining compliance.

The inspectors reviewed the solid radioactive waste system description in the UFSAR, the PCP, and the recent radiological effluent release report for information on the types, amounts, and processing of radioactive waste disposed. The inspectors reviewed the scope of any QA audits in this area since the last inspection. The inspectors selected areas where containers of radioactive waste were stored, and verified that the containers were labeled in accordance with 10 CFR Part 20.1904, "Labeling Containers," or controlled in accordance with 10 CFR Part 20.1905, "Exemptions to Labeling Requirements," as appropriate.

The inspectors verified that the radioactive materials storage areas were controlled and posted in accordance with the requirements of 10 CFR Part 20, "Standards for Protection Against Radiation." For materials stored or used in the controlled or unrestricted areas, the inspectors verified that they were secured against unauthorized removal and controlled in accordance with 10 CFR Part 20.1801, "Security of Stored Material," and 10 CFR Part 20.1802, "Control of Material not in Storage," as appropriate.

The inspectors verified that FitzPatrick staff had established a process for monitoring the impact of long-term storage (e.g., buildup of any gases produced by waste decomposition, chemical reactions, container deformation, loss of container integrity, or re-release of free-flowing water) sufficient to identify potential unmonitored, unplanned releases, or nonconformance with waste disposal requirements. The inspectors selected containers of stored radioactive materials, and verified that there were no signs of swelling, leakage, and deformation.

The inspectors walked down accessible portions of liquid and solid radioactive waste processing systems to verify and assess that the current system configuration and operation agree with the descriptions in the UFSAR, offsite dose calculation manual, and PCP. Several areas were identified where radioactive material was on the floor in some tank cubicles. This was documented by FitzPatrick staff in CR-JAF-2012-02608.

The inspectors identified radioactive waste processing equipment that was not operational and/or was abandoned in place, and verified that FitzPatrick staff had established administrative and/or physical controls to ensure that the equipment would not contribute to an unmonitored release path and/or affect operating systems or be a source of unnecessary personnel exposure. The inspectors verified that FitzPatrick staff had reviewed the safety significance of systems and equipment abandoned in place in accordance with 10 CFR Part 50.59, "Changes, Tests, and Experiments."

The inspectors reviewed the adequacy of any changes made to the radioactive waste processing systems since the last inspection. The inspectors verified that changes from what was described in the UFSAR were reviewed and documented in accordance with 10 CFR Part 50.59, as appropriate.

The inspectors identified processes for transferring radioactive waste resin and/or sludge discharges into shipping/disposal containers. The inspectors verified that the waste stream mixing, sampling procedures, and methodology for waste concentration averaging were consistent with the PCP, and provided representative samples of the waste product for the purposes of waste classification as described in 10 CFR Part 61.55, "Waste Classification."

For those systems that provide tank recirculation, the inspectors verified that the tank recirculation procedure provided sufficient mixing.

The inspectors verified that FitzPatrick's PCP correctly described the current methods and procedures for dewatering waste.

The inspectors identified radioactive waste streams, and verified that FitzPatrick staff's radiochemical sample analysis results were sufficient to support radioactive waste characterization as required by 10 CFR Part 61, "Licensing Requirements for Land Disposal of Radioactive Waste." The inspectors verified that FitzPatrick staff's use of scaling factors and calculations to account for difficult-to-measure radionuclides was technically sound and based on current 10 CFR Part 61 analyses.

For the waste streams identified above, the inspectors verified that changes to plant operational parameters were taken into account to (1) maintain the validity of the waste stream composition data between the annual or biennial sample analysis update, and (2) verified that waste shipments continued to meet the requirements of 10 CFR Part 61.

The inspectors verified that FitzPatrick staff had established and maintained an adequate QA program to ensure compliance with the waste classification and characterization requirements of 10 CFR Part 61.55, "Waste Classification," and 10 CFR Part 61.56, "Waste Characteristics."

The inspectors observed shipment packaging, surveying, labeling, marking, placarding, vehicle checks, emergency instructions, disposal manifest, shipping papers provided to the driver, and FitzPatrick staff verification of shipment readiness. The inspectors verified that the requirements of any applicable transport cask certificate of compliance had been met. The inspectors verified that FitzPatrick was authorized to receive the shipment packages.

The inspectors determined that the shippers were knowledgeable of the shipping regulations and that shipping personnel demonstrated adequate skills to accomplish the package preparation requirements for public transport with respect to FitzPatrick staff's response to NRC Bulletin 79-19, "Packaging of Low-Level Radioactive Waste for Transport and Burial," dated August 10, 1979, and 49 CFR Part 172, "Hazardous Materials Table, Special Provisions, Hazardous Materials Communication, Emergency Response Information, Training Requirements, and Security Plans," Subpart H, "Training." The inspectors verified that FitzPatrick's training program provided training to personnel responsible for the conduct of radioactive waste processing and radioactive material shipment preparation activities.

The inspectors selected non-excepted package shipment records and verified that the shipping documents indicated the proper shipper name; emergency response information and a 24-hour contact telephone number; accurate curie content and volume of material; and appropriate waste classification, transport index, and United Nations number. The inspectors verified that the shipment placarding was consistent with the information in the shipping documentation.

The inspectors verified that problems associated with radioactive waste processing, handling, storage, and transportation, were being identified by FitzPatrick staff at an appropriate threshold, were properly characterized, and were properly addressed for resolution in FitzPatrick's CAP. The inspectors verified the appropriateness of the

corrective actions for a selected sample of problems documented by FitzPatrick staff that involve radioactive waste processing, handling, storage, and transportation.

The inspectors reviewed the results of selected audits performed since the last inspection of this program and evaluated the adequacy of FitzPatrick staff's corrective actions for issues identified during those audits.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

.1 Drill and Exercise Performance, ERO Drill Participation, and ANS Reliability (3 samples)

a. Inspection Scope

The inspectors reviewed data for the three EP PIs, which are: (1) drill and exercise performance; (2) ERO drill participation; and, (3) ANS reliability. The last NRC EP inspection at FitzPatrick was conducted in the second quarter of 2011; the inspectors reviewed supporting documentation from EP drills, training records, and equipment tests from the second calendar quarter of 2011 through the first calendar quarter of 2012, to verify the accuracy of the reported PI data. The review of the PIs was conducted in accordance with NRC Inspection Procedure 71151. The acceptance criteria documented in Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Performance Indicator Guidelines," Revision 6, was used as reference criteria.

b. Findings

No findings were identified.

.2 Reactor Coolant System (RCS) Specific Activity and RCS Leak Rate (2 samples)

a. Inspection Scope

The inspectors reviewed FitzPatrick's submittal for the RCS specific activity and RCS leak rate performance indicators for the period of July 1, 2011 through March 31, 2012. To determine the accuracy of the PI data reported during those periods, the inspectors used definitions and guidance contained in NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6. The inspectors also reviewed RCS sample analysis and control room logs of daily measurements for RCS leakage, and compared that information to the data reported in the PI. Additionally, the inspectors observed surveillance activities that determined the RCS identified leakage rate and chemistry personnel obtaining an RCS sample.

b. Findings

No findings were identified.

.3 Safety System Functional Failures (1 sample)

a. Inspection Scope

The inspectors reviewed FitzPatrick's submittals for the Safety System Functional Failures PI for the period of July 1, 2011, through March 31, 2012. To determine the accuracy of the PI data reported during those periods, inspectors used definitions and guidance contained in NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, and NUREG-1022, "Event Reporting Guidelines 10 CFR 50.72 and 10 CFR 50.73." The inspectors reviewed LERs and NRC integrated inspection reports to validate the accuracy of the submittals.

b. Findings

No findings were identified.

4OA2 Problem Identification and Resolution (71152 - 2 samples)

.1 Routine Review of Problem Identification and Resolution Activities

a. Inspection Scope

As required by Inspection Procedure 71152, "Problem Identification and Resolution," the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify that Entergy staff entered issues into the CAP at an appropriate threshold, gave adequate attention to timely corrective actions, and identified and addressed adverse trends. 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 CAP and periodically attended CR screening meetings.

b. Findings

No findings were identified.

.2 Semi-Annual Trend Review

a. Inspection Scope

The inspectors performed a semi-annual review of site issues, as required by Inspection Procedure 71152, "Problem Identification and Resolution," to identify trends that might indicate the existence of more significant safety issues. In this review, the inspectors included repetitive or closely-related issues that may have been documented by FitzPatrick personnel outside of the CAP, such as trend reports, PIs, major equipment problem lists, system health reports, maintenance rule assessments, and the CAP backlog. The inspectors also reviewed FitzPatrick's CAP database for the first and second quarters of 2012 to assess CRs written in various subject areas (equipment problems, human performance issues, etc.), as well as individual issues identified during the NRC's daily CR review (Section 4OA2.1). The inspectors reviewed the FitzPatrick quarterly trend report for the first quarter of 2012, conducted under EN-LI-121, "Entergy Trending Process," to verify that FitzPatrick personnel were appropriately evaluating and trending adverse conditions in accordance with applicable procedures.

b. Findings and Observations

No findings were identified.

The inspectors evaluated a sample of CRs generated over the course of the past two quarters by departments that provide input to the quarterly trend reports. The inspectors determined that, in most cases, the issues were appropriately evaluated by Entergy staff for potential trends and resolved within the scope of the corrective action program. However, the inspectors noted several instances where issue trending was not utilized and may have been useful. For example, there have been multiple instances of EP communications equipment malfunctions during the past six months. Although the individual issues have been addressed through the CAP, the inspectors saw no evidence that they had collectively been evaluated for trend. Also, in the area of equipment qualification there have been several CRs initiated for issues related to ineffective scheduling of equipment qualification component replacements. However, the issue was not recognized by Entergy staff as a trend until it was identified as a QA audit finding (CR-JAF-2012-02399). Finally, the inspectors determined that a significant number of CRs in the past six months have been for security equipment related issues. On at least two occasions, these had been evaluated by Entergy personnel for trend (CR-JAF-2012-00994 and -02805), with the determination having been that no trend exists. Although the individual issues were being addressed, the inspectors considered that this particular issue satisfied the EN-LI-121 definition of an adverse trend. While this was not a violation of regulatory requirements, the inspectors determined it was a missed opportunity to effectively use all of the tools available in the CAP.

.3 Annual Sample: Reactor Water Recirculation Motor-Generator Scoop Tube Positioner Modification

a. Inspection Scope

The inspectors performed an in-depth review of Entergy staff's apparent cause evaluations and corrective actions associated with CR-JAF-2010-07783, CR-JAF-2010-07809, and CR-JAF-2011-00133 concerning problems associated with the installation, testing, and operation of new RWR motor-generator (MG) scoop tube positioners that were installed during the 2010 refueling outage. Specifically, sluggish system response to speed change demands and the inability to perform small speed changes during normal plant operation were determined to have been due to excessive torque used on fasteners during assembly of positioner ball joints and inadequate system tuning after installation. In addition, an unanticipated RWR pump speed change and resultant change in reactor power was determined to have been due to the above problems coupled with inadequate operator training on use of the modified system.

The inspectors assessed Entergy staff's problem identification threshold, cause analyses, extent of condition reviews, and the prioritization and timeliness of corrective actions to determine whether Entergy personnel were appropriately identifying, characterizing, and correcting problems associated with this issue and whether the planned or completed corrective actions were appropriate. The inspectors compared the actions taken to the requirements of Entergy's corrective action program.

b. Findings and Observations

Introduction: The inspectors identified a self-revealing Green NCV of TS 5.4, "Procedures," because Entergy staff did not provide adequate procedures for installation of a plant modification to replace the RWR MG scoop tube positioners during the 2010 refueling outage. Specifically, excessive torque was specified for use on positioner ball joint fasteners, which damaged one of the ball joints and resulted in subsequent binding during attempted operation.

Description: Engineering Change (EC) 15323 was developed to replace the RWR MG scoop tube positioners with units from a different vendor during the 2010 refueling outage. The positioner is connected to the scoop tube by a connecting rod which has a ball joint at either end. During development of the EC, FitzPatrick Design Engineering personnel identified the vendor-specified torque value for fasteners that connect the ball joints to the actuator and scoop tube appeared to be too high. FitzPatrick personnel discussed this concern with the vendor, and vendor personnel affirmed that the specified value was correct. On this basis, FitzPatrick personnel accepted the torque value as being correct and did not pursue other means to confirm its validity, such as by comparison to a listing of standard torque values or obtaining additional documentation from the vendor.

After installation of the new actuators, set-up testing revealed that the ball joints did not operate freely. As a result, the connecting rods were removed from both the 'A' and 'B' RWR MGs for troubleshooting; in doing so, two of the four ball joint fasteners could not be loosened and had to be cut off. One of the four ball joints was examined by Design Engineering personnel and was found to operate without binding; the remaining three were not inspected. In subsequent discussions with Design Engineering personnel, the vendor identified that the previously specified torque for the ball joint fasteners had been incorrect and provided a lower torque value to be used for reinstallation of the connecting rods. Following reinstallation of the connecting rods with new fasteners, movement of the ball joints was satisfactory and actuator setup testing was completed.

The plant was operating at steady state 100 percent power on November 12, 2010, approximately one month after plant startup from the refueling outage, when the 'B' RWR MG speed decreased by approximately five percent without operator action. The resultant RWR flow reduction caused reactor power to decrease by about 40 MWt. Control room operators entered abnormal operating procedure (AOP)-8, "Loss or Reduction of Reactor Coolant Flow," and AOP-32, "Unplanned Power Change." As a result of the 'B' RWR loop flow reduction, the requirements of TS 3.4.1 for balanced loop flow were no longer satisfied. As immediate corrective action, control room operators reduced flow in the 'A' RWR loop to restore compliance with TS 3.4.1, then locked the scoop tubes for both RWR MGs pending further evaluation of the event. The issue was entered into the CAP as CR-JAF-2010-07782.

Entergy staff determined the cause of the unplanned 'B' RWR loop flow reduction was intermittent binding of one of the connecting rod ball joints in the scoop tube positioner. In this instance, operators had attempted to lower speed of the 'B' RWR MG for normal reactor power maintenance the day before the event, but MG speed did not change due to ball joint binding. Operators did not subsequently remove the speed change demand signal, and the result was anomalous speed reduction the following day when the bound ball joint released. The apparent cause of the ball joint binding was determined to have

been that the excessive torque applied by the fastener during original installation had deformed the ball, and had also extruded a gasket into the gap between the ball and its socket. As corrective action, both ball joints in the two RWR MG scoop tube positioners were replaced.

Analysis: The inspectors determined this was a performance deficiency in that Entergy staff did not provide adequate procedures for installation of replacement RWR scoop tube positioners in accordance with TS 5.4, "Procedures." The RWR system provides one of the primary means of changing reactor reactivity. Determination of the correct torque value to be used for the ball joint fasteners, given recognition of the apparently excessive torque values originally specified by the vendor, along with the binding that was encountered during set-up testing, was reasonably within the ability of Design Engineering personnel. This finding was more than minor because it was similar to example 4.b in IMC 0612, Appendix E, "Examples of Minor Issues," in that it resulted in a plant transient. This finding also affected the Initiating Events cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors evaluated the finding using the Phase 1, "Initial Screening and Characterization," worksheet in Attachment 4 to IMC 0609, "Significance Determination Process." The inspectors determined this finding was not a loss of coolant accident or external events initiator, and did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. Therefore, the inspectors determined the finding to be of very low safety significance (Green).

This finding had a cross-cutting aspect in the area of Human Performance, Resources, because Design Engineering personnel did not ensure that accurate design documentation and procedures were available to assure successful implementation of the RWR MG scoop tube positioner modification [H.2(c)].

Enforcement: TS 5.4, "Procedures," states, in part, "Written procedures shall be established, implemented, and maintained covering...the applicable procedures recommended in RG 1.33, Appendix A, November 1972." RG 1.33, Appendix A, November 1972, Section I, "Procedures for Performing Maintenance," states, in part, "Maintenance which can affect the performance of safety-related equipment should be properly preplanned and performed in accordance with written procedures..." RG 1.33, Appendix A, November 1972, Section D, "Procedures for Startup, Operation, and Shutdown of Safety Related BWR Systems," includes the nuclear steam supply system recirculating system as such a system.

Contrary to the above, during the 2010 FitzPatrick refueling outage, maintenance which could affect the performance of the RWR system, specifically, replacement of the RWR MG scoop tube positioners, was not properly preplanned, in that an incorrect torque value was provided in the procedure for installation of the positioner ball joint fasteners. As a result, one of the ball joints in the 'B' RWR MG scoop tube positioner was damaged such that on November 11-12, 2010, while the plant was operating at 100 percent power, it malfunctioned and caused an unanticipated reduction of reactor power by approximately 1.5 percent. Because this issue was of very low safety significance (Green) and Entergy entered this issue into their corrective action program as CR-JAF-2010-07782, this finding is being treated as an NCV, consistent with the NRC Enforcement Policy. **(NCV 05000333/2012003-02, Inadequate Procedure for**

Installation of Reactor Water Recirculation Motor-Generator Scoop Tube Positioners)

4OA5 Other Activities

.1 (Closed) NRC Temporary Instruction 2515/177, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal and Containment Spray Systems"

a. Inspection Scope

The inspectors performed this inspection in accordance with Temporary Instruction (TI) 2515/177, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal and Containment Spray Systems," for the James A. FitzPatrick Nuclear Power Plant. The NRC staff developed TI 2515/177 to support the NRC's confirmatory review of Entergy's response to NRC Generic Letter (GL) 2008-01, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal and Containment Spray Systems." The Office of Nuclear Reactor Regulation (NRR) documented completion of their review of Entergy's GL 2008-01 response in a closure letter dated March 4, 2010 (ADAMS Accession No. ML100630382). Based on the review of Entergy's GL 2008-01 response letters, the NRR staff provided guidance on TI inspection scope to the regional inspectors. The inspectors used this inspection guidance along with the TI to verify that Entergy implemented or was in the process of acceptably implementing the commitments, modifications, and programmatically controlled actions described in their GL 2008-01 response. The inspectors verified that the plant-specific information (including licensing bases documents and design information) was consistent with the information used by NRR in their assessment and that it supported a conclusion that the subject systems' operability was reasonably assured.

The inspectors reviewed a sample of isometric drawings and piping and instrument diagrams, and conducted selected system piping walkdowns to verify that Entergy staff had drawings that reflected the subject system configurations and UFSAR descriptions. Specifically, the inspectors verified the following related to a sample of isometric drawings for the CS, RHR and HPCI systems.

- High point vents were identified
- High points that did not have vents were recognized and evaluated with respect to their potential for gas buildup
- Other areas where gas could accumulate and potentially impact subject system operability, such as at orifices in horizontal pipes, isolated branch lines, heat exchangers, improperly sloped piping, and under closed valves, were acceptably evaluated in engineering reviews or had ultrasonic testing (UT) data to confirm that void formation had not been present
- For piping segments reviewed, branch lines and fittings were clearly shown

The inspectors conducted walkdowns of portions of the above systems to reasonably assure the acceptability of Entergy staff's drawings used during their review of the GL. The inspectors verified that Entergy staff performed walkdowns of the above systems to confirm that system orientation, vents and alarms, in combination with instructions, procedures, tests, and training, would ensure that each system was sufficiently full of water to assure operability. The inspectors reviewed engineering analyses associated

with the development of acceptance criteria for as-found voids within system suction and discharge piping. The review included engineering assumptions for the acceptability of void fractions at the inlet of the pumps and from pump casing vents. The inspectors also performed a walkdown with Entergy personnel to observe a sample of where field UT measurement locations had been used for the initial monitoring of gas voids during Entergy staff's GL 2008-01 review.

The inspectors reviewed a sample of Entergy's procedures used for filling and venting the associated GL systems to verify that the procedures were effective in venting or reducing voiding to acceptable levels. The inspectors verified that Entergy's specified surveillance frequencies were consistent with the TS, TS bases, and the UFSAR. The inspectors reviewed a sample of system surveillance tests regarding monthly assessment of keep-fill level instruments and system venting requirements, to ensure procedures adequately verified system piping was void free or, if applicable, procedures documented the existence of as-found gas conditions for evaluation within the corrective action program. The inspectors reviewed corrective action program documents to verify that selected actions described in Entergy's nine-month and supplemental submittals were acceptably documented including completed actions and the implementation schedule for incomplete actions. Additionally, the inspectors reviewed Entergy staff's evaluations and corrective actions for various issues identified during their GL 2008-01 review. This review was performed to ensure Entergy staff appropriately evaluated and adequately addressed any gas voiding concerns including the evaluation of operability for gas voids discovered in the field. The inspectors reviewed system training documentation to assess if training had been provided to the operations staff to ensure appropriate awareness of the effects of gas voiding. The inspectors also discussed gas voiding concerns with design and system engineers to assess their awareness of gas voiding issues, and the effectiveness of Entergy staff's training.

b. Findings

No findings were identified.

.2 Follow-up on Alternative Dispute Resolution Confirmatory Order (92702)

Background

NRC Confirmatory Order (CO) EA-10-090 / EA-10-248 / EA-11-106 was issued to Entergy on January 26, 2012, to confirm commitments made to the NRC during a mediation session held on November 9, 2011. The mediation session was conducted upon Entergy's request, in response to the NRC's offer of Alternative Dispute Resolution (ADR), regarding apparent violations identified by the NRC at FitzPatrick. As part of the settled agreement for the CO, Entergy agreed to take additional actions to ensure that the effectiveness of corrective actions previously taken for the issues identified are extended to the Entergy fleet and to the industry.

The objective of this inspection was to verify the actions required of Entergy, to date, as documented in the CO have been implemented. The inspectors used guidance contained in inspection procedure 92702 to conduct the reviews. Actions required of Entergy to be completed at a later date will be inspected and documented in forthcoming inspection reports.

.A (1) Inspection Scope

CO Section V, Paragraph 4.A: Entergy will review its existing fleet-wide general employee training to ensure adequate coverage of the lessons learned from the event that formed the basis for the Confirmatory Order (CO), regarding both procedural compliance and the requirement to maintain complete and accurate records in accordance with 10 CFR 50.9. Entergy will document the results of this review of the general employee training within 60 days after the issuance of the CO. If this review reveals a need to revise the general employee training, Entergy will make the appropriate revisions within 180 days of the date of the CO.

(2) Findings and Observations

No findings were identified. Entergy staff initiated CR-JAF-2012-00966 to address actions to be taken in response to the CO. As addressed in corrective action (CA) 3 to this CR, Entergy staff conducted a review of their fleet-wide GET training material content with respect to lessons learned from the events that formed the basis for the CO. Based on this review, Entergy staff developed a list of lessons learned and concluded that the current revision of FCBT-GET-PATSS, "General Employee Training Program, Entergy Fleet Specific Plant Access Training Lesson Plan," Revision 13, does not adequately address the need for procedural compliance and the requirement to maintain complete and accurate records in accordance with 10 CFR Part 50.9. Entergy staff developed recommended improvements to the GET training material, which, per CR-JAF-2012-00966, CA 4, are projected to be incorporated in the lesson plan during the third quarter of 2012.

The inspectors reviewed FCBT-GET-PATSS, Revision 13, Entergy staff's documented review of this material, and the lessons learned and recommended improvements. The inspectors determined that Entergy staff's review appropriately identified the lessons learned. The inspectors determined that Entergy staff's recommended improvements appear reasonable to address the gaps in the existing GET training material with respect to the CO.

.B (1) Inspection Scope

CO Section V, Paragraph 4.B: Entergy will prepare a case study about the event that formed the basis of the CO, highlighting the role of those who had the opportunity to detect, report, and prevent the misconduct, as well as on the actions of the individuals who engaged in the misconduct. The Site Vice President or General Manager for Plant Operations at each of Entergy's nine commercial nuclear power plants will present the case study during two station-wide meetings to ensure that both day and night shift personnel will have the opportunity to attend. Entergy will complete these presentations within 180 days of the date of the CO. Entergy will make this case study available for NRC review before conducting these station-wide meetings.

(2) Findings and Observations

No findings were identified. Entergy staff provided the inspectors a copy of the prepared case study about the event that formed the basis of the CO. The inspectors conducted an in-office review of the case study prior to Entergy management's first scheduled presentation on June 14, 2012. The inspectors observed case study presentations at

FitzPatrick and Pilgrim Nuclear Power Station. The inspectors determined that the case study adequately covered the event that formed the basis of the CO.

.C (1) Inspection Scope

CO Section V, Paragraph 4C: Within 90 days of the date of the CO, Entergy will add a commitment to the commitment tracking system to maintain the safety culture monitoring processes as described in NEI 09-07 "Fostering a Strong Nuclear Safety Culture," or similar processes, at Entergy's nine commercial nuclear power plants.

(2) Findings and Observations

No findings were identified. The inspectors verified that Entergy staff had added commitments to the commitment tracking systems at their nine commercial nuclear power plants to maintain the safety culture monitoring processes. This item is closed.

.D (1) Inspection Scope

CO Section V, Paragraph 4.D: Within 90 days of the date of the CO, Entergy will review its procedure EN-QV-136, Nuclear Safety Culture Monitoring, which implements the safety culture monitoring processes in NEI 09-07 "Fostering a Strong Nuclear Safety Culture," to determine whether the procedure (if that procedure had been in effect at the time of the violations) would have detected the safety culture weaknesses that led to the misconduct that formed the basis for the CO. If the review indicates that the implementation of that procedure may not have detected the weaknesses, Entergy will develop enhancements to the NEI process that would improve the ability to detect those weaknesses and revise the Entergy procedure accordingly. Entergy will complete this procedure revision, if needed, within 120 days of the completion of that review. Additionally, within 30 days after revising its procedure, Entergy will provide the results of its review to NEI for its consideration in revising NEI document 09-07 "Fostering a Strong Nuclear Safety Culture." Entergy will make the results of this review available for NRC review.

(2) Findings and Observations

No findings were identified. As addressed in CR-JAF-2012-00966, CA 40, Entergy staff performed a review of EN-QV-136, "Nuclear Safety Monitoring," Revision 0, and concluded that, in all likelihood, the procedure would not have detected the safety culture weaknesses that led to the misconduct that formed the basis for the CO. Entergy staff determined that the procedure should have a greater focus on data analysis, discussion of safety culture issues, and developing actions to address safety culture weaknesses, with less emphasis on data sorting and review. Revision of EN-QV-136 is being tracked under CR-JAF-2012-00966, CA 43, and is projected to be completed during the third quarter of 2012.

The inspectors reviewed NEI 09-07, EN-QV-136, and Entergy staff's documented review of EN-QV-136, including recommended changes. The inspectors determined that Entergy staff's review identified appropriate procedure enhancement recommendations.

4OA6 Meetings, Including Exit

The inspectors presented the inspection results to Mr. M. Colomb and other members of Entergy management at the conclusion of the inspection on July 20, 2012. The inspectors asked Entergy personnel whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified by Entergy personnel.

ATTACHMENT: SUPPLEMENTARY INFORMATION

SUPPLEMENTARY INFORMATION**KEY POINTS OF CONTACT**Entergy Personnel

M. Colomb, Site Vice President
 C. Adner, Manager, Operations
 C. Brown, Manager, Quality Assurance, Entergy
 B. Finn, Director, Nuclear Safety Assurance
 T. Hunt, Manager, Corrective Action and Assessment
 J. Pechacek, Manager, Licensing
 D. Poulin, Manager, System Engineering
 T. Redfearn, Manager, Security
 M. Reno, Manager, Maintenance
 P. Scanlan, Manager, Programs and Components Engineering
 B. Sullivan, General Manager, Plant Operations
 D. Wallace, Director, Engineering
 E. Wolfe, Manager, Radiation Protection

LIST OF ITEMS OPENED, CLOSED, DISCUSSED, AND UPDATEDOpened/Closed

05000333/2012003-01	NCV	Failure to Follow Procedure During Removal from Service of Emergency Diesel Generator Ventilation (Section 1R13)
05000333/2012003-02	NCV	Inadequate Procedure for Installation of Reactor Water Recirculation Motor-Generator Scoop Tube Positioners (Section 4OA2)

Closed

05000333/2514/177	TI	Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal and Containment Spray Systems (Section 4OA5)
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LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

Procedures:

AOP-72, "115 KV Grid Loss, Instability, or Degradation," Revision 9
EN-DC-178, "System Walkdowns," Revision 4
OP-44, "115 KV System," Revision 19
ST-9W, "Electrical Lineup and Power Verification," Revision 10
AP-12.04, "Seasonal Weather Preparations," Revision 19
OP-55A, "Control and Relay Room Refrigeration Water Chiller," Revision 24
OP-55B, "Control Room Ventilation and Cooling," Revision 35
OP-60, "Diesel Generator Room Ventilation," Revision 8

Documents:

System Health Report, System 71 - 345 and 115 KV Distribution, fourth quarter 2011 and first quarter 2012

Condition Reports:

CR-JAF-2001-02177
CR-JAF-2001-04434
CR-JAF-2003-04173
CR-JAF-2004-00455
CR-JAF-2007-00034
CR-JAF-2010-00837
CR-JAF-2012-00277
CR-JAF-2012-01166

Section 1R04: Equipment Alignment

Procedures:

OP-13, "Residual Heat Removal System," Revision 95
OP-13C, "RHR Service Water," Revision 10
OP-14, "Core Spray System," Revision 34
OP-20, "Standby Gas Treatment System," Revision 37
OP-21, "Emergency Service Water," Revision 37
OP-22, "Diesel Generator Emergency Power," Revision 57

Documents:

DBD-014, "Design Basis Document for the Core Spray System 014," Revision 10
DBD-046, "Design Basis Document for the Normal Service Water, Emergency Service Water, RHR Service Water," Revision 18

Section 1R05: Fire Protection

Procedures:

PPF-PWR02, "West Cable Tunnel/ Elev. 258' Fire Area/Zone IC/CT-1," Revision 4
PPF-PWR14, "Crescent Area - East, Elevations 227', 242', Fire Area/Zone XVII/RB-1E,"
Revision 3

PFP-PWR24, "Reactor Building - East, Elevation 300', Fire Area/Zone VIII/RB-1C, IX/RB-1A,"
Revision 5
PFP-PWR-25, "Reactor Building - West, Elevation 300', Fire Area/Zone X/RB-1B, VIII/RB-1C,"
Revision 3
PFP-PWR30, "Switchgear Room West / Elev. 272' Fire Area/Zone IC/SW-1," Revision 2
PFP-PWR31, "Emergency Diesel Generator Spaces-south Elev. 272' Fire Area/Zone V/EG-1,
EG-2, EG-5," Revision 3

Documents:

JAF-RPT-04-00478, "JAF Fire Hazards Analysis," Revision 2
JAF-ANAL-FPS-01139, "Various Unsealed Penetrations from Crescents and Main Steam
Tunnel to Torus," Revision 2
JAF-ANAL-FPS-01145, "Unsealed Mechanical Penetrations (Pipe Sleeves) in the Three-Hour-
Rated Fire Barrier Separating the Cleanup Phase Separator Tank Room (Fire Zone 9RB-
1A) from the Northeast Corner of the Reactor Building (Fire Zone 8RB-1C) on Elevation
300'," Revision 1

Condition Reports:

CR-JAF-2012-02452
CR-JAF-2012-02453

Section 1R06: Flood Protection Measures

Condition Reports:

CR-JAF-2012-03704
CR-JAF-2012-03763

Section 1R07: Heat Sink Performance

Procedures:

OP-4, "Circulating Water System," Revision 71
SP-04.03, "Service and Circulating Water Systems Chemical Treatment," Revision 11
EN-DC-316, "Heat Exchanger Performance and Condition Monitoring," Revision 3
ST-8Q, "Testing of the Emergency Service Water System (IST)," Revision 42, with results as of
April 2012
ST-2YA, "RHR Heat Exchanger A Performance Test," Revision 2
ST-2YB, "RHR Heat Exchanger B Performance Test," Revision 2

Documents:

JAF NPP NRC Generic Letter 89-13 Service Water Program, dated December 3, 2009
Frazil Ice Events of 1993 and February 15, 2004, with OE18206 documentation
UFSAR Change Request 06-006 on intake structure heater bars, dated March 8, 2006
JAF Calculation RHR-02953, "Basis for heat exchanger performance methodology, to
supplement calculation RHR-00392," dated March 2003
Intake Cleaning Project Summary of Conditions, dated October 1, 2010
Crescent Cooler 66UC-22A Operability Heat Transfer Capability Test, dated April 23, 2011,
determining the maximum lake temperature needed for operability
System Health Report, System 46 - Emergency Service Water, fourth quarter 2011 and
first quarter 2012

Drawings:

11825-FC-42A, "Intake & Discharge Tunnels Plan & Profile"
 FC-43C, "Intake Structure Concrete Details," Revision 4
 FM-46A, "Flow Diagram Service Water System 46," Revision 91
 FM-46B, "Flow Diagram Emergency Service Water System 46 and 15," Revision 56
 FM-46C, "Flow Diagram Service Water System 46," Revision 17
 FB-10H, "Flow Diagram Reactor Building Service Water Cooling System 66," Revision 43
 FB-35E, "Flow Diagram Control Room Area Service & Chilled Water System 70," Revision 38

Condition Reports:

CR-JAF-2012-00700	CR-JAF-2012-02780	CR-JAF-2012-02877
CR-JAF-2012-01615	CR-JAF-2011-04239	CR-JAF-2004-00068
CR-JAF-2012-03684	CR-JAF-2004-00056	

Work Orders:

WO 00284874
 WO 52340673
 WO 52379663

Section 1R11: Licensed Operator Requalification ProgramProcedures:

ODSO-30, "Maintenance of NRC Licenses and STA Qualifications," Revision 22
 EN-TQ-114, "Licensed Operator Requalification Training Program Description," Revision 7
 EN-TQ-201, "Systematic Approach to Training Process," Revision 18
 EN-TQ-202, "Simulator Configuration Control," Revision 8
 EN-TQ-217, "Examination Security," Revision 2

Documents:

2012 Operating Examination Sample Plan

Job Performance Measures:

Event Classification and Determine PARs (SRO)
 Restore Reactor Building Ventilation following an Isolation (SRO/RO)
 Restore H₂O₂ Monitors (SRO/RO)
 Primary Containment Venting for PCPL (SRO/RO)
 Transfer from Single-element to Three-element RFP Control (SRO/RO)
 Plant Shutdown for Outside the Control Room - SNO/CRS Actions - 10600 Bus De-energized
 (Alternate Path) (SRO/RO)
 Secure a Feedwater Pump (SRO/RO)
 Emergency EDG Shutdown (Alternate Path) (SRO/RO)
 Insertion of a Manual Reactor Scram with a Control Rod Insertion Failure (Alternate Path)
 (SRO/RO)
 Emergency EDG Shutdown (Alternate Path) (SRO/RO)
 CRD Pump Trip (Alternate Path) (SRO/RO)
 Resetting Manual Scoop Tube Lock-up (Alternate Path) (SRO/RO)
 Restoration of HPCI after Auto initiation and High Level Trip with Failure of 23MOV-19 to Close
 (Alternate Path) (SRO/RO)
 Shift Aux Busses from Reserve Station Service to T-4 (Alternate Path) (SRO/RO)

Comprehensive Written Exams (2011):

JWEX-LOR-11AN-Week 1 (RO)
JWEX-LOR-11AN-Week 4 (RO)
JWEX-LOR-11AN-Week 3 (SRO)

Simulator Scenarios:

SES LOR-Eval 2012A
SES LOR-Eval 2012B
SES LOR-Eval 2012D
SES LOR-Eval 2012F
SES LOR-Eval 2012H
SES LOR-Eval 2012I

Simulator Testing:

Steady-state and Normal Operating Tests (2010 and 2011)
Transient Testing (2010)
Computer Real Time Test (2011)
Operating Limits exceeded Test (2011)
License Class Reactivity Manipulations (9/2010)
Plant Down Power Comparison (10/2010)
Rapid Power Reduction Transient (3/2011)
Scenario Based Testing for Scenarios used in Requalification Exams: Eval 2012A, Eval 2012E,
Eval 2012G, Eval 2012H

Condition Reports

CR-JAF-2011-06566
CR-JAF-2011-01262
CR-JAF-2010-07845
CR-JAF-2010-07814
CR-JAF-2010-07621
CR-JAF-2010-05407

Simulator Deficiency Reports:

2010-040
2010-051
2011-002
2011-080

Section 1R12: Maintenance Effectiveness

Procedures:

EN-DC-203, "Maintenance Rule Program," Revision 1
EN-DC-204, "Maintenance Rule Scope and Basis," Revision 2
EN-DC-205, "Maintenance Rule Monitoring," Revision 3
EN-DC-206, "Maintenance Rule (a)(1) Process," Revision 1
OP-55B, "Control Room Ventilation and Cooling," Revision 35

Documents:

System Health Report, System 70 - Control Room/Relay Room Ventilation, fourth quarter 2011
and first quarter 2012
System Health Report, System 34 - Feedwater, second quarter 2011 through first quarter 2012

JAF-RPT-FWS-03079, "Maintenance Rule Basis Document System 34 Feedwater," Revision 3
DBD-034, "Design Basis Document for the Condensate/Feedwater and Feedwater Control
Systems, 006/033/034," Revision 15

EC 12276, "Install Fault Tolerant Logic of the RFP Low Suction Pressure Switches (344PS-
124A, B)"

System Health Report, System 13 - RCIC, second quarter 2011 through first quarter 2012
NRC Information Notice 2010-20, "Turbine-Driven Auxiliary Feedwater Pump Repetitive
Failures"

JAF-RPT-RCIC-02284, "Maintenance Rule Basis Document System 13 RCIC," Revision 6
DBD-013, "Design Basis Document for the Reactor Core Isolation Cooling System," Revision 11

Condition Reports:

CR-JAF-2010-06949	CR-JAF-2010-07064	CR-JAF-2011-03462
CR-JAF-2010-07120	CR-JAF-2010-07610	CR-JAF-2011-03754
CR-JAF-2010-07124	CR-JAF-2010-07863	CR-JAF-2011-05159
CR-JAF-2010-07230	CR-JAF-2010-07962	CR-JAF-2011-05951
CR-JAF-2010-07239	CR-JAF-2010-08048	CR-JAF-2011-06348
CR-JAF-2010-08194	CR-JAF-2010-08307	CR-JAF-2011-06504
CR-JAF-2010-08487	CR-JAF-2010-00294	CR-JAF-2012-00705
CR-JAF-2011-04905	CR-JAF-2010-02310	CR-JAF-2012-00776
CR-JAF-2011-06007	CR-JAF-2010-03896	CR-JAF-2012-00854
CR-JAF-2012-00648	CR-JAF-2010-07439	CR-JAF-2012-01740
CR-JAF-2010-02405	CR-JAF-2010-07464	CR-JAF-2012-02458
CR-JAF-2010-02898	CR-JAF-2011-00140	CR-JAF-2012-02485
CR-JAF-2010-03300	CR-JAF-2011-00756	
CR-JAF-2010-06184	CR-JAF-2011-00791	

Section 1R13: Maintenance Risk Assessments and Emergent Work Control

Procedures:

AP-10.10, "On-Line Risk Assessment," Revision 7
EN-OP-119, "Protected Equipment Postings," Revision 5
EN-WM-104, "On Line Risk Assessment," Revision 7

Section 1R15: Operability Determinations and Functionality Assessments

Procedures:

EN-OP-104, "Operability Determination Process," Revision 6
MP-057.06, "Battery Maintenance," Revision 40
MST-023.01, "HPCI Turbine Mechanical Overspeed Trip Test and Calibration," Revision 2

Documents:

EN-OP-11 Operational Decision Making Issue, "13MOV-131, RCIC Turbine Steam Inlet Isol
Valve, Leaking By Closed Seat," Revision 2

Condition Reports:

CR-JAF-2012-00584	CR-JAF-2012-02398	CR-JAF-2012-02344
CR-JAF-2012-02362	CR-JAF-2012-02194	CR-JAF-2012-02510
CR-JAF-2012-02370	CR-JAF-2012-02175	CR-JAF-2012-02733
CR-JAF-2012-02385	CR-JAF-2012-02041	CR-JAF-2012-02984
CR-JAF-2012-02395	CR-JAF-2012-02334	CR-JAF-2012-03015

Section 1R18: Plant Modifications

Procedures:

EN-DC-136, "Temporary Modifications," Revision 7

IMP-71.53, "System Backup Protection Scheme Removal and Return to Service**," Revision 5

IMP-G13, "Procedure for Removing and Inserting a Protective Relay*," Revision 5

Documents:

Operations Shift Standing Order 2012-003, "'B' RWR Pump Motor Bearing Oil Level Alarm"

Section 1R19: Post Maintenance Testing

Procedures:

ST-2AM, "RHR Loop B Quarterly Operability Test (IST)," Revision 32

TST-166, "Relays 01-125-3A3, 3A2, 3A1, 3D, 3B, 3C - 1SGTB01 PMT," Revision 0

ST-34B, "Reactor Building Exhaust Rad Monitors Instrument / Logic System Functional and Simulated Automatic Actuation Test," Revision 41

ST-8Q, "Testing of the Emergency Service Water System (IST)," Revision 42

MP-059.51, "Limitorque Actuators Inspection and Lubrication," Revision 34

MP-023.14, "HPCI Turbine Minor Inspection, 23TU-2*," Revision 18

ST-4N, "HPCI Quick Start, Inservice, and Transient Monitoring Test (IST)," Revision 61

ISP-100C-PCIS, "PCIS Instrument Functional Test / Calibration (ATTS)**," Revision 12

Condition Reports:

CR-JAF-2012-03407

CR-JAF-2012-03408

Section 1EP2: Alert and Notification System Testing

Procedures:

EPMP-EPP-08, "Maintenance, Testing and Operation of the Oswego County Prompt Notification System," Revision 02000

Documents:

WR 84-22, "Evaluation of the Oswego County Prompt Notification System," dated June 1984
Annual Prompt Notification System Siren Preventive Maintenance-Mechanical/Electrical
Records, Attachment 3

Prompt Notification System Siren Maintenance Records, Attachment 5

Section 1EP3: Emergency Preparedness Organization Staffing and Augmentation System

Procedures:

SAP- 20, "Emergency Plan Assignments," Revision 32

SAP-7, "Surveillance Procedure for On-Call Employees," Revision 41

EAP-17, "Emergency Organization Staffing," Revision 119

Documents:

JEP-10-0007, "Off Hours Unannounced Mobilization Drill," dated June 9, 2010

Evaluation of the March 6, 2012 CAN/PAGER Test

Evaluation of the May 1, 2012 CAN/PAGER Test

Evaluation of the December 12, 2011 CAN/PAGER Test
Updated Evaluation of the September 13, 2011 CAN/PAGER Test

Section 1EP5: Correction of Emergency Preparedness Weaknesses

Procedures:

EN-EP-202, "Equipment Important to Emergency Preparedness," Revision 1
SAP-23, "Equipment Important to Emergency Preparedness," Revision 0

Documents:

LO-JAFLO-2011-00156, "Snapshot Assessment: ANS & ERO Augmentation Testing," dated March 22, 2012
QA-7-2011-JAF-1, "Emergency Plan Quality Assurance Audit Report, April 11 - May 12, 2011"
QS-2011-JAF-001, "James A. Fitzpatrick Quality Assurance Surveillance Report, Emergency Planning, January 5 - March 30, 2011"
JAF Team 1 Emergency Planning Drill Report, dated November 30, 2011
JAF Decontamination of Site Evacuees Drill, dated December 9, 2011
Evaluation of Team 1 EOF Mini Drill Report, dated March 8, 2012
Evaluation of Team 1 TSC Mini Drill Report, dated March 22, 2012
Team 2 Drill Report, dated May 5, 2011
JAF Team 3 EP Drill Report, dated July 20, 2011

Condition Reports:

CR-JAF-2011-06196	CR-JAF-2011-06366	CR-JAF-2011-06392
CR-JAF-2011-06188	CR-JAF-2010-08269	CR-JAF-2011-06378
CR-JAF-2011-06211	CR-JAF-2011-03391	
CR-JAF-2011-06365	CR-JAF-2011-02329	

Section 1EP6: Drill Evaluation

Procedures:

IAP-2, "Classifications of Emergency Conditions," Revision 30, Figure IAP-2.1 [Hot], "James A. FitzPatrick Nuclear Power Plant Emergency Action Matrix," Revision H

Section 2RS1: Radiological Hazard Assessment and Exposure Controls

Procedures:

EN-RP-101, "Access Control for Radiologically Controlled Areas," Revision 6
EN-RP-108, "Radiation Protection Posting," Revision 11
EN-RP-121, "Radioactive Material Control," Revision 6
EN-RP-205, "Prenatal Monitoring," Revision 3
SAP-2, "Emergency Equipment Inventory," Revision 50

Documents:

QA-14/15-2011-JAF-1, "Radiation Protection and Radwaste Program," dated November 17, 2011
LO-JAFLO-2011-00030 CA 3, "Radiation Protection Routine Surveys," dated April 25, 2011
LO-JAFLO-2011-0075, Training and Qualification of Radiation Protection Technicians," dated December 21, 2011
LO-JAFLO-2011-01414 CA-00004, "RO19 Alpha Survey Effectiveness," dated July 26, 2011

Condition Reports:

CR-JAF-2011-04448	CR-JAF-2011- 06289	CR-JAF-2012- 01665
CR-JAF-2011- 04702	CR-JAF-2011- 06393	
CR-JAF-2011- 05866	CR-JAF-2012- 01030	

Section 2RS2: Occupational ALARA Planning and Controls

Procedures:

EN-RP-101, "Access Control for Radiologically Controlled Areas," Revision 6
 EN-RP-205, "Prenatal Monitoring," Revision 3

Condition Reports:

CR-JAF-2011-04777	CR-JAF-2011-06071	CR-JAF-2011-06650
CR-JAF-2011-06031	CR-JAF-2011-06308	CR-JAF-2012-02711

Section 2RS3: In-Plant Airborne Radioactivity Control and Mitigation

Procedures:

EN-RP-131, "Air Sampling," Revision 9
 EN-RP-501, "Respiratory Protection Program," Revision 4
 EN-RP-502, "Inspection and Maintenance of Respiratory Protection Equipment," Revision 8
 EN-RP-503, "Selection, Issue and Use of Respiratory Protection Equipment," Revision 5
 RP-RESP-05.02, "Air Compressor, Bauer Unicus III," Revision 5

Condition Reports:

CR-JAF-2011-04462
 CR-JAF-2011-06690

SCBAs Observed Inspection and Reviewed Maintenance Records:

<u>Case</u>	<u>Regulator ID</u>
124	2179
41	2157
1	2151
70	2209

Section 2RS4: Occupational Dose Assessment

Procedures:

EN-RP-122, "Alpha Monitoring," Revision 6
 EN-RP-201, "Dosimetry Administration," Revision 3
 EN-RP-202, "Personnel Monitoring," Revision 8
 EN-RP-203, "Dose Assessment," Revision 5
 EN-RP-204, "Special Monitoring Requirements," Revision 6

Condition Reports:

CR-JAF-2011-06582
 CR-JAF-2012-00415
 CR-JAF-2012-01090

Whole Body Counts Reviewed:

<u>PCE Number</u>	<u>Date</u>
2010-050	September 20, 2010
2010-077	September 28, 2010
2010-090	October 2, 2010

Section 2RS8: Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation

Procedures:

- EN-RP-121, "Radioactive Material Control," Revision 6
- EN-RP-121-01, "Receipt of Radioactive Material," Revision 1
- EN-RW-102, "Radioactive Shipping Procedure," Revision 9
- EN-RW-105, "Process Control Program," Revision 2

Documents:

- Quality Assurance Audit Report QA-14/15-2011-JAF-1, "Radiation Protection and Radwaste Program"
- Waste Stream Reports: Powdered Resin; DAW; Bead "Resin; Sewage Sludge; R-19 Torus Desludge Filter; and CST Filter

Condition Reports:

CR-JAF-2010-02748	CR-JAF-2011-02042	CR-JAF-2011-05421
CR-JAF-2010-03306	CR-JAF-2011-03456	CR-JAF-2011-05422
CR-JAF-2010-04180	CR-JAF-2011-03475	
CR-JAF-2011-00775	CR-JAF-2011-05099	
	2011-1392	2011-1419
<u>Radioactive Material</u>	2011-1418	2012-1420
<u>Shipments:</u>	2011-1391	

Section 4OA2: Identification and Resolution of Problems

Procedures:

- EN-LI-102, "Corrective Action Process," Revision 19
- EN-LI-121, "Energy Trending Process," Revision 12

Documents:

- James A. FitzPatrick Quarterly Trend Report, first quarter 2012
- Heat Exchanger Program Health Report, first quarter 2012
- Equipment Qualification Program Health Report, first quarter 2012
- Fire Protection Program Health Report, first quarter 2012
- LO-JAFLO-2011-00132, "Snapshot Self Assessment / Benchmark on Large Motor Program"
- LO-JAFLO-2011-00135, "IP71111.11 LOR Training Program Focused Self-Assessment"
- LO-JAFLO-2011-00136, "Snapshot Self Assessment / Benchmark on General Employee Training"
- LO-JAFLO-2011-00140, "Snapshot Assessment, Fatigue Rule Implementation"
- LO-JAFLO-2011-00141, "Snapshot Assessment, Troubleshooting Control of Maintenance Activities"
- LO-JAFLO-2011-00142, "Snapshot Self Assessment, Radiation Protection Instrumentation"

Calibration and Procedures”
 LO-JAFLO-2011-00145, “Snapshot Assessment / Benchmark on GL 89-10/96-05 MOV Program”
 LO-JAFLO-2011-00178, “Focused Self Assessment, ALARA Planning and Controls”

Condition Reports:

CR-JAF-2012-00057	CR-JAF-2012-00878	CR-JAF-2012-01983
CR-JAF-2012-00080	CR-JAF-2012-00994	CR-JAF-2012-02105
CR-JAF-2012-00113	CR-JAF-2012-01002	CR-JAF-2012-02186
CR-JAF-2012-00209	CR-JAF-2012-01166	CR-JAF-2012-02399
CR-JAF-2012-00370	CR-JAF-2012-01459	CR-JAF-2012-02408
CR-JAF-2012-00407	CR-JAF-2012-01508	CR-JAF-2012-02458
CR-JAF-2012-00491	CR-JAF-2012-01590	CR-JAF-2012-02491
CR-JAF-2012-00502	CR-JAF-2012-01625	CR-JAF-2012-02532
CR-JAF-2012-00573	CR-JAF-2012-01735	CR-JAF-2012-02779
CR-JAF-2012-00652	CR-JAF-2012-01740	CR-JAF-2012-02805
CR-JAF-2012-00656	CR-JAF-2012-01830	CR-JAF-2012-03197
CR-JAF-2012-00714	CR-JAF-2012-01834	CR-JAF-2012-03198
CR-JAF-2012-00784	CR-JAF-2012-01976	CR-JAF-2012-03405
CR-JAF-2012-00829	CR-JAF-2012-01978	

Section 40A5: Other Activities

Procedures:

ARP 09-3-1-10, “Core Spray A or B Disch Line Not Full,” Revision 3
 ARP 09-3-1-18, “RHR A or B Disch Line Not Full,” Revision 5
 OP-13B, “RHR Containment Control,” Revision 10
 OP-13E, “RHR Keep-Full,” Revision 5
 OP-14, “Core Spray System,” Revision 34
 OP-15, “High Pressure Coolant Injection,” Revision 59
 ST-3AA, “Core Spray Loop A Monthly Operability Test,” Revision 9
 ST-2AL, “RHR Loop A Quarterly Operability Test (IST),” Revision 32
 ST-3AB, “Core Spray Loop B Monthly Operability Test,” Revision 9

Documents:

Entergy Letter JAFP-08-0107, “Nine Month Response to NRC GL 2008-01”
 Entergy Letter JAFP-09-0037, “Supplemental Response to NRC GL 2008-01”
 JAF-RPT-11-00020, “Summary Report Associated with the Resolution of GL 2008-01
 Managing Gas Accumulation in ECCS, Decay Heat and Containment Spray Systems,”
 Revision 0
 NRC Information Notice 2011-14, “Component Cooling Water System Gas Accumulation and
 Performance Issues”
 SDLP-23, “HPCI System Training,” Revision 16
 UT Examination Report 09UT010
 UT Examination Report 09UT012
 UT Examination Report 09UT013
 FCBT-GET-PATSS, “General Employee Training Program, Entergy Fleet Specific Plant Access
 Training Lesson Plan,” Revision 13
 Entergy Letter, ENOC-12-00018, “NRC Confirmatory Order EA-10-090, EA-10-248, EA-11-106
 Section V.B; Case Study Available for Review,” dated May 23, 2012
 Entergy Letter, ENOC-12-00017, “Fleet-wide Employee Meetings per NRC Confirmatory Order,”

dated May 22, 2012

FSEM-ADM-JAFNRC-CONF, "JAF Mask Fit Case Study," Revision 0
EN-QV-136, "Nuclear Safety Culture Monitoring," Revision 0
NEI 09-07, "Fostering a Strong Nuclear Safety Culture," Revision 0

Drawings:

FM-20A, "Residual Heat Removal System Flow Diagram," Revision 72
FM-20B, "Residual Heat Removal System Flow Diagram," Revision 70
FM-23A, "Core Spray System Flow Diagram," Revision 49
FM-25A, "High Pressure Core Injection Flow Diagram," Revision 73
MSK-3021, "Core Spray System Piping Isometric," Revision 7
MSK-3004, "Residual Heat Removal System Piping Isometric," Revision 14
MSK-3027, "HPCI System," Revision 9

Calculations:

JAF-CALC-12-00001, "Gas Void Venting Acceptance Criteria," Revision 0
JAF-RPT-08-0015, "ECCS Suction Voiding," Revision 0
JAF-RPT-11-00018, "GL 2008-01: Evaluation of Acceptable Void Sizes in ECCS, Decay Heat and Containment Spray Systems," Revision 0

Condition Reports:

CR-JAF-2008-03413	CR-JAF-2011-06699	CR-JAF-2012-03018*
CR-JAF-2008-03577	CR-JAF-2012-00966	CR-JAF-2012-03019*
CR-JAF-2008-03623	CR-JAF-2012-02984*	CR-JAF-2012-03021*
CR-JAF-2011-05388	CR-JAF-2012-03015*	CR-JAF-2012-03022*
CR-JAF-2011-06344	CR-JAF-2012-03017*	CR-JAF-2012-03024*

*NRC-Identified During Inspection

LIST OF ACRONYMS

10 CFR	Title 10, Code of Federal Regulations
AC	alternating current
ADAMS	Agencywide Documents Access and Management System
ADR	alternative dispute resolution
ADS	automatic depressurization system
ALARA	as low as is reasonably achievable
ANS	alert and notification system
AOP	abnormal operating procedure
ARP	annunciator response procedure
ATTS	analog transmitter trip system
BWR	boiling water reactor
CA	corrective action
CAP	corrective action program
CO	confirmatory order
CR	condition report
CS	core spray
EC	engineering change
EDG	emergency diesel generator
Entergy	Entergy Nuclear Northeast
EP	emergency preparedness
ERF	emergency response facilities
ERO	emergency response organization
ESW	emergency service water
FitzPatrick	James A. FitzPatrick Nuclear Power Plant
GET	general employee training
GL	Generic Letter
HPCI	high pressure coolant injection
HVAC	heating, ventilation, and air conditioning
IMC	inspection manual chapter
IST	in-service test
JPM	job performance measures
KV	kilovolt
LCO	limiting condition for operation
LER	licensee event report
MG	motor-generator
MWt	megawatt thermal
NCV	non-cited violation
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
NRR	Nuclear Reactor Regulation
NVLAP	National Voluntary Laboratory Accreditation Program
PARS	Publicly Available Records
PCP	process control program
PI	performance indicator
PMT	post-maintenance testing
QA	quality assurance
RCIC	reactor core isolation cooling
RCS	reactor coolant system

RG	Regulatory Guide
RHR	residual heat removal
RHRSW	residual heat removal service water
RWR	reactor water recirculation
SBGT	standby gas treatment
SCBA	self-contained breathing apparatus
SDP	significant determination process
SR	surveillance requirement
SSC	structures, systems, or component
ST	surveillance test
TI	temporary instruction
TS	technical specification
UFSAR	updated final safety analysis report
UT	ultrasonic testing
WO	work order