



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406

November 2, 2007

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

SUBJECT: JAMES A. FITZPATRICK NUCLEAR POWER PLANT - NRC INSPECTION
REPORT 05000333/2007004

Dear Mr. Dietrich:

On September 30, 2007, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your James A. FitzPatrick Nuclear Power Plant. The enclosed inspection report documents the inspection results which were discussed on October 4, 2007 with Mr. K. Mulligan and other members of your staff.

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

This report documents one finding of very low safety significance (Green). This finding did not involve a violation of NRC requirements.

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

Sincerely,

/RA/

Eugene W. Cobey, Chief
Projects Branch 2
Division of Reactor Projects

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

Enclosure: Inspection Report 05000333/2007004
w/Attachment: Supplemental Information

cc w/ encl:
see next page

cc w/encl:

G. J. Taylor, Chief Executive Officer, Entergy Operations
J. Wayne Leonard, Chairman & CEO, Entergy Operations
M. R. Kansler, President & CEO / CNO, Entergy Nuclear Operations, Inc.
J. T. Herron, Senior Vice President, Entergy Operations
M. Balduzzi, Senior Vice President, Northeastern Regional Operations
Senior Vice President of Engineering and Technical Services
J. DeRoy, Vice President, Operations Support
K. Mulligan, General Manager, Plant Operations
O. Limpas, Vice President, Engineering (ENO)
J. Ventosa, General Manager, Engineering (ENO)
J. McCann, Director, Nuclear Safety and Licensing (ENO)
Manager, Licensing (ENO)
E. Harkness, Director of Oversight (ENO)
Director, Nuclear Safety Assurance
J. Costedio, Manager, Licensing
W. Dennis, Assistant General Counsel (ENO)
P. Tonko, President and CEO, New York State Energy Research and Development Authority
P. Eddy, New York State Department of Public Service
P. Smith, President, New York State, Energy, Research, and Development Authority
S. Lyman, Oswego County Administrator
Supervisor, Town of Scriba
C. Donaldson, Esquire, Assistant Attorney General, New York Department of Law
J. Sniezek, PWR SRC Consultant
M. Lyster, PWR SRC Consultant
J. Doering, PWR SRC Consultant
S. Lousteau, Treasury Department, Entergy Services
J. Spath, Program Director, New York State Energy Research and Development Authority

cc w/encl:

- G. J. Taylor, Chief Executive Officer, Entergy Operations
- J. Wayne Leonard, Chairman & CEO, Entergy Operations
- M. R. Kansler, President & CEO / CNO, Entergy Nuclear Operations, Inc.
- J. T. Herron, Senior Vice President, Entergy Operations
- M. Balduzzi, Senior Vice President, Northeastern Regional Operations
- Senior Vice President of Engineering and Technical Services
- J. DeRoy, Vice President, Operations Support
- K. Mulligan, General Manager, Plant Operations
- O. Limpas, Vice President, Engineering (ENO)
- J. Ventosa, General Manager, Engineering (ENO)
- J. McCann, Director, Nuclear Safety and Licensing (ENO)
- Manager, Licensing (ENO)
- E. Harkness, Director of Oversight (ENO)
- Director, Nuclear Safety Assurance
- J. Costedio, Manager, Licensing
- W. Dennis, Assistant General Counsel (ENO)
- P. Tonko, President and CEO, New York State Energy Research and Development Authority
- P. Eddy, New York State Department of Public Service
- P. Smith, President, New York State, Energy, Research, and Development Authority
- S. Lyman, Oswego County Administrator
- Supervisor, Town of Scriba
- C. Donaldson, Esquire, Assistant Attorney General, New York Department of Law
- J. Sniezek, PWR SRC Consultant
- M. Lyster, PWR SRC Consultant
- J. Doering, PWR SRC Consultant
- S. Lousteau, Treasury Department, Entergy Services
- J. Spath, Program Director, New York State Energy Research and Development Authority

SUNSI Review Complete: BDW (Reviewer's Initials)

DOCUMENT NAME: T:\DRP\BRANCH2\A - Fitzpatrick\Reports\Fitz Inspection Reports in WORD for Review\WORD Doc IR 2007004 (Rev 2).doc

After declaring this document "An Official Agency Record" it will be released to the Public.

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy
ML073060352

OFFICE	RI/DRP	RI/DRP	RI/DRP		
NAME	BWelling/BDW	GHuengs/BDW FOR/	ECobey/EWC		
DATE	10/25/07	10/25/07	11/02/07		

OFFICIAL RECORD COPY

P. Dietrich

3

Distribution w/encl:

S. Collins, RA

M. Dapas, DRA

E. Cobey, DRP

D. Jackson, DRP

B. Welling, DRP

G. West, RI OEDO (Acting)

M. Kowal, NRR

J. Boska, PM NRR

J. Hughey, NRR

G. Hunegs, DRP, Senior Resident Inspector

L. Casey, DRP, Acting Resident Inspector

K. Kolek, Resident OA

Region I Docket Room (with concurrences)

ROPreports@nrc.gov

U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.: 50-333

License No.: DPR-59

Report No.: 05000333/2007004

Licensee: Entergy Nuclear Northeast (Entergy)

Facility: James A. FitzPatrick Nuclear Power Plant

Location: 268 Lake Road
Scriba, New York 13093

Dates: July 1, 2007 through September 30, 2007

Inspectors: G. Hunegs, Senior Resident Inspector
L. Casey, Resident Inspector
D. Dempsey, Resident Inspector

Approved by: Eugene W. Cobey, Chief
Projects Branch 2
Division of Reactor Projects

TABLE OF CONTENTS

SUMMARY OF FINDINGS	iii
REPORT DETAILS.....	1
REACTOR SAFETY	1
1R01 Adverse Weather Protection	1
1R04 Equipment Alignment.....	1
1R05 Fire Protection	3
1R06 Flood Protection Measures	3
1R11 Licensed Operator Requalification Program.....	4
1R12 Maintenance Effectiveness	4
1R13 Maintenance Risk Assessments and Emergent Work Control.....	6
1R15 Operability Evaluations	7
1R19 Post-Maintenance Testing	8
1R20 Refueling and Other Outage Activities	8
1R22 Surveillance Testing	9
1R23 Temporary Plant Modifications.....	10
1EP6 Drill Evaluation.....	10
OTHER ACTIVITIES	10
4OA1 Performance Indicator (PI) Verification.....	10
4OA2 Identification and Resolution of Problems.....	11
4OA3 Event Followup.....	12
4OA6 Meetings, Including Exit	12
ATTACHMENT: SUPPLEMENTAL INFORMATION	12
KEY POINTS OF CONTACT	A-1
LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED.....	A-1
LIST OF DOCUMENTS REVIEWED	A-2
LIST OF ACRONYMS	A-6

SUMMARY OF FINDINGS

IR 05000333/2007-004; 07/01/2007 - 09/30/2007; James A. FitzPatrick Nuclear Power Plant; Maintenance Effectiveness.

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

A. NRC-Identified and Self-Revealing Findings

Cornerstone: Mitigating Systems

- Green. A self-revealing finding was identified involving inadequate corrective actions when Entergy did not correct an adverse condition on the reactor core isolation cooling (RCIC) system flow instrument sensing lines. The condition allowed air bubbles to form in the sensing lines, resulting in an erroneous flow indication. Consequently, the RCIC system would not have been able to achieve its design flow rate of 410 gallons per minute (gpm). Entergy entered the condition into their corrective action program and implemented interim corrective actions by revising the RCIC operating procedure to vent the sensing lines. In addition, Entergy has scheduled activities to correct the instrument sensing line condition.

The inspectors determined that this finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone; and, it impacted the cornerstone objective of ensuring the availability, reliability, and capability of the RCIC system to respond to initiating events to prevent undesirable consequences. Specifically, the RCIC system would not have been able to achieve its design flow rate of 410 gpm. The inspectors evaluated this finding using Phase 1 of IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," and determined it to be of very low safety significance (Green) because it was not associated with a design or qualification deficiency, it did not represent any actual loss of a system safety function, it did not represent the actual loss of a safety function of a single train for greater than its Technical Specification allowed outage time, and it was not potentially risk significant due to a seismic, flooding, or severe weather initiating event. (Section 1R12)

B. Licensee-Identified Violations

None.

REPORT DETAILS

Summary of Plant Status

The James A. FitzPatrick Nuclear Power Plant began the inspection period operating at full power. On August 20, 2007, Entergy shut down the plant to repair a leaking safety relief valve. Following repairs, the plant was returned to full power on August 24, 2007. On September 12, 2007, operators initiated a manual reactor scram due to lowering plant cooling water intake level which was caused by lake algae intrusion. Following repairs to the traveling water screens and execution of a monitoring plan to assure availability of cooling water systems, the plant was started up on September 14, 2007, and returned to full power on September 16, 2007. The plant continued to operate at or near full power for the remainder of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01 - 1 sample)

a. Inspection Scope

The inspectors completed one adverse weather protection sample. High ambient temperature and increased lake temperature were observed during early July 2007. To assess licensee actions and equipment performance, the inspectors reviewed Entergy's actions and toured risk significant areas including the emergency diesel generator (EDG) building and east and west cable tunnels. The inspectors used Administrative Procedure 12.04, "Seasonal Weather Preparations," as a guide. The documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment

.1 Partial System Walkdown (71111.04Q - 4 samples)

a. Inspection Scope

The inspectors performed four partial system walkdowns to verify the operability of redundant or diverse trains and components during periods of system train unavailability or following periods of maintenance. The inspectors referenced the system procedures, the Updated Final Safety Analysis Report (UFSAR), and system drawings in order to verify that the alignment of the available train was proper to support its required safety

functions. The inspectors also reviewed applicable condition reports (CRs) and work orders to ensure that Entergy had identified and properly addressed equipment discrepancies that could potentially impair the capability of the available equipment train, as required by 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action." The documents reviewed are listed in the Attachment. The inspectors performed a partial walkdown of the following systems which represented four inspection samples:

- 'A' low pressure coolant injection system when the 'B' low pressure coolant injection inverter was out of service for maintenance;
- Reactor core isolation cooling system when the high pressure coolant injection system was out of service for testing;
- High pressure coolant injection system when the reactor core isolation cooling system was out of service for testing; and
- 'A' residual heat removal service water with 'B' residual heat removal service water out of service for planned maintenance.

b. Findings

No findings of significance were identified.

.2 Complete System Walkdown (71111.04S - 1 sample)

a. Inspection Scope

The inspectors performed a complete system alignment inspection of the automatic depressurization system to identify any discrepancies between the existing equipment lineup and the required lineup. During the inspection, system drawings and operating procedures were used to verify proper equipment alignment and operational status. The inspectors reviewed the open maintenance work orders associated with the system for any deficiencies that could affect the ability of the system to perform its function. Documentation associated with unresolved design issues such as temporary modifications, operator workarounds, and items tracked by plant engineering were also reviewed to assess their collective impact on system operation. In addition, the inspectors reviewed the CR database to verify that the equipment problems were being identified and appropriately resolved. The documents reviewed are listed in the Attachment. The inspection represented one inspection sample.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05Q - 9 samples)

a. Inspection Scope

The inspectors conducted a tour of several fire areas to assess the material condition and operational status of fire protection features. The inspectors verified, consistent with applicable administrative procedures, that: combustibles and ignition sources were adequately controlled; passive fire barriers, manual fire-fighting equipment, and suppression and detection equipment were appropriately maintained; and compensatory measures for out-of-service, degraded, or inoperable fire protection equipment were implemented in accordance with Entergy's fire protection program. The inspectors evaluated the fire protection program against the requirements of Licensee Condition 2.C.3. The documents reviewed are listed in the Attachment. This inspection represented nine inspection samples for fire protection tours and was conducted in the following plant areas:

- Fire Area/Zone XIII/SP-1, 1B/FP-1, FP-3, elevation 255 foot;
- Fire Area/Zone 1A/AS-1, elevation 272 foot;
- Fire Area/Zone VII/CS-1, elevation 272 foot;
- Fire Area/Zone IA/MG-1, elevation 300 foot;
- Fire Area/Zone II/SW-2, elevation 272 foot;
- Fire Area/Zone IC/SW-1, elevation 272 foot;
- Fire Area/Zone Yard, elevation 272 foot;
- Fire Area/Zone 1E/TB-1, elevation 300 foot; and
- Fire Area/Zone 1E/TB-1, elevation 272 foot.

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures

.1 Internal Flooding (71111.06 - 1 sample)

a. Inspection Scope

The inspectors reviewed selected risk-important plant design features and Entergy's procedures intended to protect the plant and its safety-related equipment from internal flooding events. The inspectors reviewed flood analysis and design documents, including the Individual Plant Examination and the UFSAR, engineering calculations, and abnormal operating procedures. The documents reviewed are listed in the Attachment. Inspections in the following plant areas represented one sample:

- Relay room;
- North cable tunnel; and
- South cable tunnel.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Regualification Program

.1 Resident Inspector Quarterly Review (71111.11Q - 1 sample)

a. Inspection Scope

On August 13, 2007, the inspectors observed licensed operator simulator training to assess operator performance during several scenarios to verify that operator performance was adequate and evaluators were identifying and documenting crew performance problems. The inspectors evaluated the performance of risk significant operator actions, including the use of emergency operating procedures. The inspectors assessed the clarity and effectiveness of communications, the implementation of appropriate actions in response to alarms, the performance of timely control board operation and manipulation, and the oversight and direction provided by the shift manager. The inspectors also reviewed simulator fidelity to evaluate the degree of similarity to the actual control room. Licensed operator training was evaluated against the requirements of 10 CFR Part 55, "Operators' Licenses." The documents reviewed are listed in the Attachment. This observation of operator simulator training represented one inspection sample.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12Q - 3 samples)

a. Inspection Scope

The inspectors reviewed performance-based problems involving selected in-scope structures, systems, or components (SSCs) to assess the effectiveness of the maintenance program. The reviews focused on:

- Proper Maintenance Rule scoping in accordance with 10 CFR Part 50.65;
- Characterization of reliability issues;
- Changing system and component unavailability;
- 10 CFR Part 50.65 (a)(1) and (a)(2) classifications;
- Identifying and addressing common cause failures;
- Trending of system flow and temperature values;
- Appropriateness of performance criteria for SSCs classified (a)(2); and
- Adequacy of goals and corrective actions for SSCs classified (a)(1).

The inspectors reviewed system health reports, maintenance backlogs, and Maintenance Rule basis documents. The inspectors evaluated the maintenance program against the requirements of 10 CFR Part 50.65. The documents reviewed are listed in the Attachment. The following Maintenance Rule samples were reviewed and represent three inspection samples:

- Reactor Core Isolation Cooling system;
- Standby gas treatment system; and
- Automatic depressurization system.

b. Findings

- .1 Introduction: A Green self-revealing finding was identified involving inadequate corrective actions when Entergy did not correct an adverse condition on the reactor core isolation cooling (RCIC) system flow instrument sensing lines. The condition allowed air bubbles to form in the sensing lines, resulting in an erroneous flow indication. Consequently, the RCIC system would not have been able to achieve its design flow rate of 410 gallons per minute (gpm).

Description: On May 4, 2006, control room operators observed a reading of approximately 50 gpm on RCIC pump discharge flow Indicator 13FI-91 and declared RCIC inoperable. The RCIC pump was not being run at the time. Entergy found that air saturation of the water in the RCIC flow instrumentation sensing lines, in conjunction with inadequate sloping of the instrument lines, led to the entrapment of air bubbles in the sensing lines and the resultant erroneous flow indication. Entergy determined that RCIC would not have been able to achieve its design flow rate of 410 gpm.

The RCIC injection flow rate is determined by an automatic flow controller, which adjusts the speed demand setting of the RCIC turbine controls. The turbine speed is determined by a comparison between the indicated flow as read on the RCIC Pump Discharge Flow Indicator 13FI-91 and the controller setpoint. Air entrapment in the negatively sloped RCIC instrument lines resulted in indicated flow being higher than actual flow. The RCIC flow controller adjusts the turbine speed demand to maintain indicated flow rate at the setpoint. Because indicated flow was higher than actual flow as a result of this condition, the actual injection flow rate would be less than desired.

Entergy had previously identified problems with instrument line slope. On January 24, 2001, high pressure coolant injection (HPCI) system flow indicated 1400 gpm with the system in the standby condition. HPCI was declared inoperable and a root cause analysis was performed in which Entergy determined that the HPCI erroneous flow indication was caused by the negative sloping of the instrument sensing lines, air entrapment in the sensing lines and inadequate instrument venting. As part of the extent of condition review, the RCIC system was inspected and Entergy concluded that the sloping of the RCIC instrument lines could result in air entrapment and erroneous flow indications.

Work Order (WO) JF-010077107 and JF-010077114 addressed and corrected the sloping of the instrument sensing lines for the HPCI flow instrumentation in February,

2001. However, Equivalent Change JE-01-141 issued on September 24, 2001 did not correct the RCIC instrument line slope to a minimum of one quarter inch per foot of sensing line run or +2.0 degrees, as required. Additionally, Entergy WO JF-929032800 dated January 10, 1992, stated that RCIC flow indicator "13FI-91" was reading 50 gpm with the pump shutdown. This WO was closed with no work performed. Approximately nine WOs from 1994 to 2001 document various instances where RCIC discharge flow indicators were showing flow with the RCIC pump shutdown.

Entergy entered the condition into their corrective action program and implemented interim corrective actions by revising the RCIC operating procedure to vent the sensing lines. In addition, Entergy has scheduled activities to correct the instrument sensing line slope.

The inspectors determined that the performance deficiency was that Entergy did not correct the inadequate sloping of the RCIC instrument lines as specified in Equivalent Change JE-01-141, resulting in RCIC inoperability on May 4, 2006. Entergy procedure EN-LI-102, "Corrective Action Process," Revision 10, requires, in part, that corrective actions address the cause or resolve the deficiency. This was reasonably within Entergy's ability to foresee and prevent. Traditional enforcement does not apply because the issue did not have an actual safety consequence or a potential for impacting the NRC's regulatory function, and it was not the result of any willful violation of NRC requirements.

Analysis: The inspectors determined that this finding was more than minor because it was associated with the equipment performance attribute of the Mitigating Systems cornerstone, and it impacted the cornerstone objective of ensuring the availability, reliability, and capability of the RCIC system to respond to initiating events to prevent undesirable consequences. The RCIC system would not have been able to achieve its design flow rate of 410 gpm. The inspectors evaluated this finding using Phase 1 of Inspection Manual Chapter 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," and determined it to be of very low safety significance (Green) because it was not associated with a design or qualification deficiency, it did not represent any actual loss of a system safety function, it did not represent the actual loss of a safety function of a single train for greater than its Technical Specification allowed outage time, and it was not potentially risk significant due to a seismic, flooding, or severe weather initiating event.

Enforcement: No violation of regulatory requirements occurred because corrective action issues related to the RCIC System are outside of the scope of 10 CFR 50 Appendix B. **(Finding (FIN) 05000333/2007004-01, Failure to Correct Negative Slope of the Reactor Core Isolation Cooling System Flow Instrument Sensing Lines.)**

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

verified that risk assessments were performed as required by 10 CFR Part 50.65(a)(4), and were accurate and complete. When emergent work was performed, the inspectors verified that the plant risk was promptly reassessed and managed. The documents reviewed are listed in the Attachment. The review of the following activities represented five inspection samples.

- Week of July 9, 2007, which included emergent work on 93 P1A1, 'A' emergency diesel generator (EDG) fuel oil transfer pump;
- Week of July 23, 2007, which included emergent work on 71T-4, normal station service transformer, to repair a terminal;
- Week of August 13, 2007, which included emergent work on the 'B' low pressure coolant injection system inverter, emergent work on the torus vent valve, 27-AOV-118, and planned maintenance on the 'B' electro-hydraulic control pump;
- Week of September 10, 2007, which included a manual reactor scram and emergent work on residual heat removal system strainers, normal service water strainers and intake screens; and
- Week of September 17, 2007, which included EDG maintenance and emergent work on the 'A' emergency service water pump.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15 - 5 samples)

a. Inspection Scope

The inspectors reviewed operability determinations to assess the acceptability of the evaluations; when needed, the use and control of compensatory measures; and compliance with Technical Specifications (TS). The inspectors' review included a verification that the operability determinations were made as specified by ENN-OP-104, "Operability Determinations." The technical adequacy of the determinations was reviewed and compared to the TS, UFSAR, and associated design basis documents. The documents reviewed are listed in the Attachment. The following evaluations were reviewed and represented five inspection samples:

- CR 2007-02607, concerning 'F' safety relief valve leakage exceeding 750 pounds mass per hour;
- CR 2007-02550, concerning standby liquid control pump operability in undervoltage conditions;
- CR 2007-03586, concerning drywell pressure instrument tubing slope;
- CR 2007-03202, concerning ultimate heat sink, emergency service water and residual heat removal service water fouling; and
- CRs 2007-02711, and 2007-01236, concerning a cracked weld on the support structure of the 'A' standby gas treatment system fan.

b. Findings

No findings of significance were identified.

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

a. Inspection Scope

The inspectors reviewed six post-maintenance test procedures and associated testing activities for selected risk-significant mitigating systems to assess whether the effect of maintenance on plant systems was adequately addressed by control room and engineering personnel. The inspectors verified: test acceptance criteria were clear, demonstrated operational readiness, and were consistent with design basis documentation; test instrumentation had current calibrations and adequate range and accuracy for the application; and tests were performed, as written, with applicable prerequisites satisfied. Upon completion, the inspectors verified that equipment was returned to the proper alignment necessary to perform its safety function. Post maintenance testing was evaluated against the requirements of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control." The documents reviewed are listed in the Attachment. The following post-maintenance test activities were reviewed and represented six inspection samples:

- Work order 116184, involving repair of the 'A' EDG fuel oil transfer pump;
- Work order 118723, involving repair of the 115 kV breaker compressor during the week of August 10, 2007;
- Work order 51105194, involving replacement of the pilot assembly for safety relief valve 02RV-71F;
- Work order 51104851, involving planned maintenance on the 'B' residual heat removal service water pump from September 10, 2007 through September 11, 2007;
- Work order 00119231, involving the 'B' low pressure coolant injection inverter repair during week of August 12, 2007; and
- Work order 00123589, involving emergent repairs to the 'A' emergency service water pump during the weeks of September 16, 2007 and September 23, 2007.

b. Findings

No findings of significance were identified.

1R20 Refueling and Other Outage Activities (71111.20 - 1 sample)

a. Inspection Scope

The inspectors observed and reviewed the following activities during the FitzPatrick scheduled maintenance outage from August 20, 2007 through August 22, 2007, to confirm that the Entergy had appropriately considered risk, industry experience, and previous site-specific problems in their outage plan. The documents reviewed are listed in the Attachment. During the outage, the inspectors observed portions of the shutdown

and cooldown and monitored licensee controls over the outage activities listed below.

- The inspectors reviewed outage schedules and procedures and verified that Technical Specification required safety system availability was maintained, shutdown risk was considered, and that contingency plans existed to restore key safety functions such as electrical power and containment integrity.
- The inspectors observed portions of the plant shutdown and cooldown and verified that the Technical Specification cooldown rate limits were not exceeded.
- The inspectors periodically verified the proper alignment and operation of the shutdown cooling and reactor coolant makeup systems.
- The inspectors observed portions of the reactor startup following the outage, and verified that safety-related equipment required for mode change was operable, containment integrity was set, and reactor coolant boundary leakage was within Technical Specification limits.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22 - 4 samples)

a. Inspection Scope

The inspectors witnessed performance of surveillance tests and/or reviewed test data of selected risk-significant SSCs to assess whether the SSCs satisfied TS, UFSAR, Technical Requirements Manual, and Entergy procedure requirements. The inspectors verified: test acceptance criteria were clear, demonstrated operational readiness, and were consistent with design basis documents; test instrumentation had current calibrations and adequate range and accuracy for the application; and tests were performed, as written, with applicable prerequisites satisfied. Upon surveillance test (ST) completion, the inspectors verified that equipment was returned to the status specified to perform its safety function. The inspectors evaluated the tests against the requirements in TS. The documents reviewed are listed in the Attachment. The following STs were reviewed and represented four inspection samples:

- ST-4N, "HPCI Quick Start, Inservice and Transient Monitoring Test;"
- ST-24J, "RCIC Flow Rate and Inservice Test;"
- ST-40D, "Daily Surveillance and Channel Check for RCS leak detection;" and
- ST-76J19, "Smoke/Heat Detector Functional and CO2 Simulated Automatic/Manual Initiation Tests, South Emergency Switchgear Room."

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications (71111.23 - 1 sample)a. Inspection Scope

The inspectors reviewed a temporary modification associated with the "A" drywell cooling coil leak repair conducted under CR-JAF-2007-02926. The inspectors assessed the adequacy of the 10 CFR Part 50.59 evaluation for the temporary modification. The inspectors also verified that the installation was consistent with the modification documentation; that the drawings and procedures were updated as applicable; and that the post-installation testing was adequate. The documents reviewed are listed in the Attachment. This review represented one inspection sample.

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation (71114.06 - 1 sample)a. Inspection Scope

The inspectors observed simulator activities associated with licensed operator requalification training on August 13, 2007. The inspectors verified that emergency classification declarations and notification activities were properly completed. The inspectors evaluated the drill against the requirements of 10 CFR Part 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities." This observation represented one inspection sample.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES4OA1 Performance Indicator (PI) Verificationa. Inspection Scope (71151 - 2 samples)

The inspectors reviewed PI data for the cornerstone listed below and used Nuclear Energy Institute 99-02, "Regulatory Assessment Performance Indicator Guidance," Revision 5, to verify individual PI accuracy and completeness.

Cornerstone: Barrier Integrity

- Reactor coolant system leak rate
- Reactor coolant system specific activity

The inspectors reviewed operator logs, plant computer data, and surveillance procedure ST-40D, "Daily Surveillance and Channel Check," to verify the accuracy of Entergy's reported maximum reactor coolant system identified leakage for July 2006 to June 2007.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems.1 Review of Items Entered into the Corrective Action Program (CAP)a. Inspection Scope

As required by Inspection Procedure 71152, "Identification and Resolution of Problems," and in order to help identify repetitive equipment failures or specific human performance issues for follow-up, the inspectors performed a daily screening of all items entered into Entergy's CAP. The review was accomplished by accessing Entergy's computerized database for CRs and attending CR screening meetings.

In accordance with the baseline inspection modules, the inspectors selected CAP items across the initiating events, mitigating systems, and barrier integrity cornerstones for additional follow-up and review. The inspectors assessed Entergy's threshold for problem identification, the adequacy of the cause analyses, extent of condition review, operability determinations, and the timeliness of the specified corrective actions. The CRs reviewed are listed in the Attachment.

b. Findings and Observations

No findings of significance were identified.

.2 Annual Sample: Emergency Diesel Generator System (71152 - 1 sample)a. Inspection Scope

The inspectors selected several corrective action issues for detailed review that were associated with the emergency diesel generator (EDG) system. The main focus was on the maintenance, performance, and corrective actions associated with the EDGs after the 'B' EDG tripped on over-speed during the start of its idle speed run as documented in CR-2007-1858. These reports were reviewed to ensure that an appropriate evaluation was performed and appropriate corrective actions were specified. The

inspectors evaluated the reports against the requirements of procedure ENN-LI-102, "Corrective Action Process," and 10 CFR Part 50, Appendix B.

b. Findings and Observations

No findings of significance were identified. The inspectors determined that the causal analysis, extent of condition review, and the timeliness of the specified recommendations and corrective actions were appropriate.

4OA3 Event Followup (71153 - 1 sample)

.1 Manual Reactor Scram Due to Lowering Intake Water Level

a. Inspection Scope

The inspectors observed control room personnel responding to an unexpected decrease in plant cooling water intake level on September 12, 2007, which required that a manual reactor scram be initiated. As part of the followup to the event, the inspectors reviewed plant chart recorders, compared requirements of off-normal procedures to observations of operators' performance, monitored equipment performance, and discussed the event response with plant personnel. The documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

4OA6 Meetings, Including Exit

On October 4, 2007, the inspectors presented the inspection results to Mr. Kevin J. Mulligan and other members of his staff. The inspectors asked Entergy whether any of the material examined during the inspection should be considered proprietary. No proprietary information was identified.

ATTACHMENT: SUPPLEMENTAL INFORMATION

Enclosure

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Entergy Personnel

P. Dietrich, Site Vice President
C. Adner, Manager Operations
S. Bono, Director Engineering
J. Costedio, Manager, Regulatory Compliance
P. Cullinan, Manager, Emergency Preparedness
M. Durr, Manager, System Engineering
B. Finn, Director Nuclear Safety Assurance
D. Johnson, Manager, Training
J. LaPlante, Manager, Security
K. Mulligan, General Manager, Plant Operations
J. Pechacek, Manager, Programs and Components Engineering
J. Solowski, Radiation Protection

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Opened and Closed

05000333/2007004-01	FIN	Failure to correct negative slope of the reactor core isolation cooling system flow instrument sensing lines.
---------------------	-----	---

Closed

None

Discussed

None

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

ST-8Q, "Testing of the ESW System" (IST), Revision 36
AOP-10, "Loss of Service Water Cooling," Revision 10
OP-42, "Service Water System," Revision 42
DBD-046, "Design Basis Document for the Normal Service Water, ESW, RHR Service Water System," Revision 17

Section 1R04: Equipment Alignment

OP-43A, "125 V DC Power System," Revision 22
OP-68, "Automatic Depressurization System," Revision 18
OP-13, "RHR System, Attachment 1A," Revision 93, Valve Lineup- RHR Loop 'A'
FM-20A, "Flow Diagram RHR System 10," Revision 6
FM-22A, "Flow Diagram Reactor Core Isolation Cooling System 13," Revision 54
ER JAF-05-10088, "Engineering Evaluation on vibration of RCIC stream supply line"
IMP-G42, "Instrument Venting and Filling," Revision 8
ST-24J, "RCIC Flow Rate and Inservice Test," Revision 36

Section 1R05: Fire Protection

ENN-DC-161, "Transient Combustible Program,"
PFP-PWR33, Fire Area/Zone XIII/SP-1, 1B/FP-1, FP-3
PFP-PWR09, Fire Area/Zone 1A/AS-1
PFP-PWR11, Fire Area/Zone VII/CS-1
PFP-PWR23, Fire Area/Zone IA/MG-1
PFP-PWR29, Fire Area/Zone II/SW-2
PFP-PWR30, Fire Area/Zone IC/SW-1
PFP-OUT39, Fire Area/Zone Yard
PFP-PWR48, Fire Area/Zone 1E/TB-1
PFP-PWR46, Fire Area/Zone 1E/TB-1

Section 1R06: Flood Protection Measures

DBD-071, "Design Basis Document for the Electrical Distribution Systems 4160V and 600V AC Power Systems," Revision 2
JAF-RPT-MULTI-02107, "IPE Update, appendix H, Internal Flooding Analysis," Revision 2

Section 1R11: Licensed Operator Regualification Program

Eval 2006B, "RWR Pump Controller Failure Lowering Flow, Unisolable Torus Leak, ATWS, Degraded Emergency Depressurization"

Section 1R12: Maintenance Effectiveness

JAF-RPT-NBS-12492, "Maintenance Rule Basis Document System 002, Nuclear Boiler, Automatic Depressurization, and Steam Leak Detection Systems," Revision 7;
 02-ADS, "Automatic Depressurization System Health Report," Second Quarter 2007
 Work Request 01-02670-00, "Re-slope line per JE-01-141"
 Equivalent Change JE-01-141, "Reroute 13FT-58 Tubing"
 ENN-DC-171, "Screening and Functional Failure Determination Form," Revision 2
 System Health Report for RCIC, 2nd Quarter 2007
 JAF-RPT-RCIC-02284, "Maintenance Rule Basis Document for System 013 Reactor Core Isolation Cooling System," Revision 4
 ENN-DC-203, "Maintenance Rule Program," Revision 0
 EN-DC-205, "Functional Failure Determination form," Revision 0
 JENG-APL-030014, "SBGT System (a)(1) Action Plan," Revision 1
 System Health Report for SBCT, 1st Quarter 2007
 JAF-RPT-SGT-02495, "Maintenance Rule Basis Document for Systems 001-125 & 24 Standby Gas Treatment & Secondary Containment Systems," Revision 3
 JENG-06-0030, "JAF Expert Panel Meeting Minutes, 1/17/06"
 JENG-05-0158, "JAF Expert Panel Meeting Minutes, 7/26/05"

Section 1R13: Maintenance Risk Assessments and Emergent Work Control

OP 46 A, 4160 V and 600 V Normal AC Power Distribution, Revision 50
 WO 00117226-01, "Terminal temperature BC5 hot"
 WO 07-116184, "FOTP"
 AP-10.10, "On-line Risk Assessment," Revision 5
 EN-WM-101, "On-line Work Management Process," Revision 0

Section 1R15: Operability Evaluations

FSAR Figure No 5.3-2, "Standby Gas Treatment System," Revision 5
 System Health Report for Standby Gas Treatment, 2nd Quarter 2007

Section 1R19: Post Maintenance Testing

ST-2XB, "RHR Service Water Loop 'B' Quarterly Operability Test (IST)," Revision 8
 IMP-71.20, "LPCI Uninterruptible Power Supply Trip Functional Test/Calibration," Revision 19
 ST-16GB, "B LPCI MOV Independent Power Supply Monthly Test," Revision 0
 CR-2007-03358, "ST-8Q failed level 1 acceptance"
 CR-2007-03361, "Elevated noise levels were noted during operation of 'A' ESW pump"
 CR-2007-03352, "Non-conforming tolerances during disassembly of 46P-2A"
 ST-8Q, "Testing of the ESW System (IST)," Revision 36
 FM-46B, "Flow Diagram ESW System 46 & 15," Revision 50
 DWG NO. 2.29-8, "Characteristic curve item 46P-2A ESW Pump," Revision 2
 OP-21, "ESW," Revision 35

WO's

51101478
51101126
51193269
51101475
51100916
51193473
51101481
51100915
51193480

Section 1R20: Refueling and Other Outage Activities

OP-65, "Startup and Shutdown Procedure," Revision 106
AP-03.01, "Post Transient Evaluation," Revision 11
OP-13D, "RHR- Shutdown Cooling," Revision 18
AP-10.09, "Outage Risk Assessment," Revision 22
St-26J, "Heatup and Cooldown Temperature Checks," Revision 20
OP-46A, "4160 V and 600 V Normal AC Power Distribution," Revision 50
RAP-7.3.16, "Plant Power Changes," Revision 4

Section 1R22: Surveillance Testing

ISP-16, "Drywell Floor Drain Sump Flow Loop Functional Test/ Calibration," Revision 35
ARP 09-4-2-12, "Drywell Floor Sump Leakage," Revision 4
ARP 09-4-2-11, "DW Equip Sump Temp Hi or Cool Wtr Flow Lo," Revision 2
EN-OP-109, "Drywell Leakage," Revision 1
AOP-39, "Loss of Coolant," , Revision 17

Section 1R23: Temporary Plant Modifications

CR-JAF-2007-02926

Section 4OA1: Performance Indicator Verification

Procedure ST-40D, "Daily Surveillance and Channel Check," Revision 104
EN-LI-114,"Performance Indicator Process," Revision 2

Section 4OA2: Identification and Resolution of Problems

System Health Report for Emergency Diesel Generator System, 2nd Quarter 2007
System Health Report for Emergency Diesel Generator Ventilation, 2nd Quarter 2007
JAF-RPT-EDG-02303, "Maintenance Rule Basis Document for System 093 Emergency Diesel Generator System," Revision 6
JAF-RPT-DGV-02301, "Maintenance Rule Basis Document for System 092 Emergency Diesel Generator Ventilation System," Revision 2

<u>Condition Reports</u>	2005-04113	2007-02916
2001-00308	2006-01989	2007-02917
2002-05008	2006-01846	2007-02918
2002-05107	2007-02147	2007-02921
2003-03214	2007-01827	2007-02925
2003-03278	2007-02306	2007-02926
2003-03308	2007-03363	2007-02876
2003-03318	2007-03263	2007-02825
2003-03532	2007-03266	2007-02823
2003-02911	2007-03267	2007-02821
2005-01004	2007-03268	2007-02956
2005-03157	2007-03269	2007-02958
2005-03468	2007-03270	2007-02964
2005-04453	2007-03273	2007-02966
2005-04487	2007-03361	2007-02968
2005-04843	2007-03370	2007-02972
2005-05255	2007-03259	2007-03335
2005-00772	2007-03260	2007-03347
2005-00795	2007-03148	2007-03350
2006-01726	2007-03154	2007-03352
2006-02890	2007-03155	2007-03354
2006-00596	2007-03158	2007-03358
2007-02503	2007-03160	2007-03359
2007-02854	2007-03162	2007-03361
2007-00752	2007-03166	2007-03321
2007-02050	2007-03167	2007-03331
2007-01530	2007-03133	2007-03332
2007-01236	2007-03135	2007-03333
2007-02711	2007-03138	2007-03300
2000-05406	2007-02931	2007-03302
2001-01923	2007-02945	2007-03304
2001-02194	2007-02899	2007-03315
2003-00678	2007-02901	2007-03078
2003-03768	2007-02905	2007-03083
2003-03717	2007-02906	2007-03086
2004-05270	2007-02907	2007-03087
2005-00178	2007-02908	2007-03281
2005-01468	2007-02909	2007-03284
2002-00231	2007-02911	2007-03289
2005-02844	2007-02912	2007-03293

Section 4OA3: Event Follow-up

AOP-64, "Loss of Intake Water Level," Revision 7

AOP-56, "High Traveling Screen or Trash Rack Differential Level," Revision 7
Transient 07-002, "Rx Scram Intake Blockage"
CR-JAF-2007-03202
ARP 09-6-1-17, "Trvlg-Wtr Screen Diff Lvl Hi-Hi"
OSSO 2007-018, "Enhanced Heat Sink Monitoring and Actions"

LIST OF ACRONYMS

ADAMS	Agencywide Document and Management System
CAP	corrective action program
CR	condition report
DBD	design basis document
EDG	emergency diesel generator
gpm	gallons per minute
HPCI	high pressure coolant injection
IMC	inspection manual chapter
NRC	Nuclear Regulatory Commission
OP	operating procedure
PARS	Publicly Available Records
PI	performance indicator
RCIC	reactor core isolation cooling
RHR	residual heat removal
SDP	significance determination process
SSC	structures, systems, or components
ST	surveillance test
TS	technical specification
UFSAR	updated final safety analysis report
WO	work order