November 13, 2002

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

# SUBJECT: FITZPATRICK NUCLEAR POWER PLANT - NRC INTEGRATED INSPECTION REPORT 50-333/02-07

Dear Mr. Sullivan:

On September 30, 2002, the NRC completed an inspection at the James A. FitzPatrick Nuclear Power Plant. The enclosed report documents the inspection findings which were discussed on October 3, 2002, with you and 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.

Based on the results of this inspection, the inspectors identified one issue of very low safety significance (Green). The issue was determined to involve a violation of NRC requirements pertaining to engineering design controls. However, because of its very low safety significance and because it was entered into your corrective action program, the NRC is treating the issue as a non-cited violation in accordance with Section VI.A of the NRC's Enforcement Policy. Also, a violation of very low safety significance that was identified by your staff is listed in Section 4OA7 of this report. If you deny the noncited violations noted in this report, you should provide a written response with the basis for the denial, within 30 days of the date of this inspection report, to the Nuclear Regulatory Commission, ATTN.: Document Control Desk, Washington, D.C. 20555-0001; with copies to the Regional Administrator, Region I, the Director, Office of Enforcement, and the NRC Resident Inspector at FitzPatrick.

The NRC has increased security requirements at FitzPatrick in response to terrorist acts on September 11, 2001. Although the NRC is not aware of any specific threat against nuclear facilities, the NRC issued an Order and several threat advisories to commercial power reactors to strengthen Entergy's capabilities and readiness to respond to a potential attack. The NRC continues to inspect Entergy's security controls and its compliance with the Order and current security regulations.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document

Mr. T. Sullivan

Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <u>http://www.nrc.gov/reading-rm/adams.html</u> (the Public Electronic Reading Room).

Sincerely,

/RA/

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

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

Enclosure: Inspection Report 50-333/02-07

Attachment 1: Supplemental Information

cc w/encl.: J. Yelverton, CEO, Entergy Operations

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# U.S. NUCLEAR REGULATORY COMMISSION

**REGION I** 

Docket No.:	50-333
License No.:	DPR-59
Report No.:	50-333/02-07
Licensee:	Entergy Nuclear Northeast
Facility:	James A. FitzPatrick Nuclear Power Plant
Location:	268 Lake Road Scriba, New York 13093
Dates:	June 30 - September 30, 2002
Inspectors:	<ul> <li>R. A. Rasmussen, Senior Resident Inspector</li> <li>D. A. Dempsey, Resident Inspector</li> <li>D. M. Silk, Senior Emergency Preparedness Inspector</li> <li>R. S. Barkley, Senior Project Engineer</li> <li>T. A. Moslak, Health Physicist</li> </ul>
Approved by:	Glenn W. Meyer, Chief Projects Branch 3 Division of Reactor Projects

# SUMMARY OF FINDINGS

IR 05000333-02-07; Entergy Nuclear Northeast; on 06/30 - 09/30/02; James A. FitzPatrick Nuclear Power Plant; Design Control, Radiological Area Access Control.

The report covers a quarterly inspection by resident inspectors. The report also covers specialist inspections of emergency preparedness, and radiological area access controls. Two findings of very low safety significance were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

#### A. Inspector Identified Findings (Self-Revealing)

• **Green.** The inspector identified that an engineering analysis that was used to extend the surveillance test intervals of the timer relays for the core spray and residual heat removal pumps were not adequately justified by instrument drift data.

The issue was considered more than minor because of the potential for emergency makeup water injection to the reactor to be delayed during a loss of coolant accident. However, this issue was determined to be of very low safety significance using Phase I of the Significant Determination Process because the timer relays would not have caused failure of any mitigating systems. This issue was considered a non-cited violation of NRC design control requirements. (Section 1R22)

#### B. Licensee Identified Findings

The inspector reviewed a violation of very low safety significance which was identified by Entergy. Corrective actions taken or planned by Entergy have been entered into Entergy's corrective action program. (Section 40A7)

# Report Details

# SUMMARY OF PLANT STATUS

The reactor operated at or near full power for the majority of the inspection period. During the reactor coastdown period, on September 17 full power core performance was extended by lowering feedwater temperature. During this evolution reactor power was lowered briefly to 70%, then raised to 100%.

# 1. REACTOR SAFETY Initiating Events, Mitigating Systems, Barrier Integrity [REACTOR - R]

#### 1R01 Adverse Weather Protection

a. <u>Inspection Scope</u>

The inspector reviewed the operating status of turbine building cooling systems, reviewed the procedural limits and actions associated with elevated lake temperature, and walked down accessible areas of the turbine building to assess the effectiveness of the ventilation systems. The inspector also interviewed operations personnel to assure that they were aware of temperature restrictions and required actions. The following documents and condition reports also were reviewed:

#### **Documents and Drawings**

- FB-18H, Flow Diagram Turbine Building Service Water System
- FM-46A, Flow Diagram Service Water
- FB-17A, Turbine Area Air Cooling and Ventilation Plan Elevation 252'
- FB-17B, Turbine Area Air Cooling and Ventilation Plan Elevation 272'
- FB-17C, Turbine Area Air Cooling and Ventilation Plan Elevation 300'
- JENG-APL-01-012, Normal Service Water Maintenance Rule (a)(1) Action Plan
- JAF-SE-93-023, Removal of Cable Tunnels Pressurization From Service
- DBD-067, Turbine Building Ventilation and Cooling Systems

## Condition Reports

00-05682	01-02363	01-02365	01-02575	01-00172	00-04957
00-05358	00-05533	01-03753	01-03777	02-02114	02-02506
02-03033	02-02699				

b. <u>Findings</u>

No findings of significance were identified.

## 1R04 Equipment Alignments

a. Inspection Scope

The inspectors performed the following partial equipment alignment walkdowns:

- Low pressure coolant injection (LPCI) and reactor core isolation cooling (RCIC) systems while the high pressure coolant injection (HPCI) system was out of service
- B emergency service water system and the B/D emergency diesel generators during surveillance testing of the A/C emergency diesel generators and A emergency service water system

During these walkdowns the inspectors verified that select valves and circuit breakers were in the appropriate position by comparing actual component position and the position described in the applicable operating procedures. The inspectors also performed visual inspections of the material condition of the major system components.

The inspectors also performed a complete walkdown of all accessible portions of the emergency service water (ESW) system. The documents reviewed that are applicable to system alignment and operational requirements included:

- OP-21, ESW
- FM-46A, Flow Diagram Service Water System
- FM-46B, Flow Diagram ESW System
- FB-10H, Flow Diagram Reactor Building Service Water Cooling System
- FB-35E, Control Room Area Service and Chilled Water System

In addition, the inspectors reviewed the applicable sections of the Updated Final Safety Analysis Report (UFSAR), design basis documents, and the individual plant examination, the corrective action program and maintenance backlogs, and the system health report.

b. Findings

No findings of significance were identified.

## 1R05 Fire Protection

a. Inspection Scope

The inspectors toured several plant areas and observed conditions related to fire protection. The inspectors looked for transient combustible materials, observed the condition of suppression systems, penetration seals, and ventilation system fire dampers, and verified that fire doors were functional. Areas observed were:

- Fire zones TB-1, OR-2, turbine building south elevation 272 feet
- Fire zone CR-1, control room and control room heating and ventilation rooms elevation 300 feet
- Fire zone TB-1, turbine building elevation 300 feet
- Fire zone RB-1A, reactor building elevation 326 feet
- Fire zone CS-1, cable spreading room elevation 272 feet
- Fire zone AS-1, auxiliary boiler room elevation 272 feet

In addition, the inspectors observed an unannounced fire brigade drill on July 9, 2002, including performance of the drill and the post-drill critique, and reviewed the disposition of issues and deficiencies.

b. Findings

No findings of significance were identified.

# 1R11 Licensed Operator Requalification Training

a. Inspection Scope

During the week of July 9, 2002, the inspector observed licensed operator simulator training that focused on shutdown plant and post-outage operations. The scenarios were scheduled in preparation for the upcoming refueling outage, and included:

- Operation of feedwater pumps in three-element control
- HPCI and safety relief valve (SRV) actuation
- Loss of offsite power in the refueling mode coupled with loss of shutdown cooling

On July 16, 2002, the inspector observed licensed operator simulator training to assess operator performance for scenarios involving: feedwater level control malfunctions, turbine control valve failures, a loss of the 10700 electric bus, and a loss of coolant accident with malfunctions of both HPCI and RCIC systems. The scenarios included event classifications in accordance with IAP-2, "Classification of Emergency Events," and simulated NRC notifications. Following the exercises the inspector observed the training instructor debriefs with the operating crew.

b. Findings

No findings of significance were identified.

## 1R12 Maintenance Rule Implementation

a. Inspection Scope

The inspector reviewed the implementation of the maintenance rule (10 CFR 50.65) as it pertained to the following:

- Primary containment isolation system
- Turbine building ventilation and associated normal service water systems
- Core spray/residual heat removal sequencing time delay relays.

The inspectors reviewed the classification of functional failures associated with these systems. The inspectors also reviewed the condition reports that were initiated for these components and verified that functional failures were evaluated properly.

b. <u>Findings</u>

One finding of very low safety significance was identified concerning failure of the core spray/residual heat removal sequencing time delay relays. This issue is discussed in Section 1R22 of this inspection report.

## 1R13 Maintenance Risk Assessment and Emergent Work

## a. Inspection Scope

The inspector reviewed Entergy's assessment of plant risk due to the following planned and emergent maintenance activities:

- Planned performance of ST-3J, Core Spray Initiation Logic Functional Test, with HPCI inoperable and the B reactor protection system power supply on the alternate power source on July 23
- Planned performance of ISP-100C-PCIS, PCIS Instrument Functional Test/Calibration (ATTS) with B reactor protection system power supply on the alternate power source on July 17
- Corrective maintenance following half-scram and local power range monitor failure on August 9
- Off-gas system maintenance on August 21
- A reactor protection system motor-generator set motor replacement, and reactor and containment cooling instrument functional test/calibration (ISP-175A1) on September 24-25

The inspectors reviewed the maintenance risk assessments and the evaluations of the potential core damage impact of the activities. Entergy concluded that these activities were not risk significant, based on the slight increase in conditional core damage probability for the period that the systems were out of service. The inspectors also reviewed the technical specifications and the UFSAR for compensatory measures associated with these activities.

The inspection also included a review of contingency plans and verification that the effects on plant risk and protected equipment were discussed during briefings and shift turnovers. During the maintenance the inspectors toured the work areas to assure that the scope of the work was consistent with the maintenance plans and that no additional systems were adversely impacted.

## b. Findings

No findings of significance were identified.

## 1R15 Operability Evaluations

#### a. Inspection Scope

The inspectors reviewed the below listed operability determinations performed to address issues identified with safety significant systems. The inspectors reviewed associated sections of the UFSAR and technical specifications for the discrepant conditions.

- JENG-REO-02-018, D residual heat removal (RHR) pump high motor winding temperature during torus cooling
- JENG-02-0075, emulsion products in HPCI lubricating oil sump
- CR 2002-03264, air flow exiting turbine building rollup doors

## b. Findings

No findings of significance were identified.

#### 1R17 Permanent Plant Modifications

a. Inspection Scope

The inspector reviewed modification documents and observed construction of a block wall that was being installed as part of the site security upgrades. The inspector verified that the wall was constructed as specified in work request 02-01613-06.

b. Findings

No findings of significance were identified.

#### 1R19 Post Maintenance Testing

#### a. Inspection Scope

The inspectors observed and reviewed the post-maintenance testing associated with the following activities:

- Repair/calibrate HPCI system flow controller on July 24
- Retest snubber following rebuild on September 23
- b. Findings

No findings of significance were identified.

#### 1R20 Refueling and Outage Activities

#### a. Inspection Scope

The inspector reviewed and observed the following activities that Entergy performed in preparation for the upcoming refueling outage (RFO-15):

- New fuel inspection in accordance with MP-004.06, Receiving, Handling, Inspecting and Channeling of Unirradiated Fuel
- Reactor coastdown mitigation; consisting of inserting eight peripheral control rods to a shallow position to increase reactor power
- TOP-348, Operation with Reduced Feedwater Temperature, consistent with General Electric Company report NEDC-33077P, James A FitzPatrick Nuclear Power Plant Final Feedwater Temperature Reduction
- ST-39D, Secondary Containment Leak Test
- b. Findings

No findings of significance were identified

#### 1R22 Surveillance Testing

## .1 Core Spray and Residual Heat Removal Pump Timer Relay Testing

a. Inspection Scope

The inspector reviewed the circumstances regarding failure of three timer relays for core spray and residual heat removal pumps during technical specification surveillance tests on July 22 and August 24, 2002. The inspector discussed timer relay design and performance with engineering personnel and reviewed the following documents:

- ST-3J, Core Spray Initiation Logic System Functional Test While in Run Mode
- TST-120, RHR Pumps C and D Start Timer Test
- Root Cause Analysis Report, dated September 17, 2002
- NRC Information Notice 92-77, Questionable Selection and Review to Determine Suitability of Electromagnetic Relays for Certain Applications
- JAF-CALC-ELEC-01460, Setpoint Calculation for the CS and RHR Pump Interlock Timer Relays
- LER 99-07-01, Both Trains of Core Spray Inoperable Due to Out of Tolerance Time Delay in Pump Start Interlock Relays

The following condition reports also were reviewed:

98-00242	98-02271	99-01376	99-01515	00-00840	00-01780
00-04521	99-00187	99-01377	00-01781	00-03109	00-03113
00-04044	02-02713	02-02721			

b. <u>Findings</u>

The inspector identified one Green finding due to failure to follow engineering procedure guidance during performance of the instrument drift analysis for timer relays for the core spray and residual heat removal pumps. The analysis had been performed in 2000 to extend the surveillance test intervals from six months to two years. The engineering procedure stated that time dependency must be assumed if the span of the instrument drift data was not large enough to cover the proposed new test interval, as was the case for the subject relays. The analysis erroneously concluded that the relay drift values were time independent. In its root cause analysis, Entergy also learned that the relays needed to be exercised periodically in order to ensure reliability over extended periods of time.

The inspector determined that this issue had a credible impact on safety in that failure of the relays to operate within the technical specification limits could delay the injection of emergency makeup water to the reactor during a loss of coolant accident (LOCA), affecting an objective of the mitigating systems cornerstone, i.e., to ensure the reliability of systems that respond to initiating events. The inspector evaluated the issue using the Phase 1 Significance Determination Process for mitigating systems and determined it to be of very low safety significance (Green) in that the condition did not result in a loss of safety function; viz. the core spray and residual heat removal pumps would still have delivered makeup water within the bounds of the JAF LOCA analysis.

Failure to establish appropriate surveillance test intervals for the core spray and residual heat removal pump timer relays were a violation of 10 CFR 50, Appendix B, Criterion III, Design Control, which requires measures to be established to ensure suitability of application of processes essential to safety-related functions of structures, systems, and components. Contrary to the above, Entergy used inadequate instrument drift data to justify an extension of the relay test intervals. This violation is being treated as a Noncited Violation (NCV), consistent with Section VI.A of the NRC Enforcement Policy, issued on May 1, 2000 (65FR25368). The issues associated with this violation are in the corrective action system as condition reports 02-02721 and 02-03211. (NCV 50-333/02-07-01)

- .2 Other Surveillance Tests
- a. Inspection Scope

The inspectors observed portions of testing and/or reviewed procedures and test results involving the following surveillance tests:

- ST-02AS, Leakage Test of RHR Shutdown Cooling Suction Inboard Isolation Valve (IST)
- ISP-29, HPCI Torus Water Level Indicator Calibration

The inspector reviewed technical specifications and the UFSAR and verified that the testing met appropriate test objectives.

b. Findings

No findings of significance were identified.

# Emergency Preparedness [EP]

# 1EP2 Alert Notification System Testing

a. <u>Inspection Scope</u>

Because neighboring Nine Mile Point is primarily responsible for the siren notification system, the inspector verified that Entergy (FitzPatrick) was receiving, reviewing, and retaining documentation regarding the siren maintenance and testing program. The inspector also verified that Entergy was monitoring the efforts of offsite officials to implement and maintain the tone alert radio program for residents within the emergency planning zone that are outside of the siren coverage area. The review was performed in accordance with NRC Inspection Procedure 71114, Attachment 02. The applicable planning standard, 10 CFR 50.47(b)(5), and related requirements in 10 CFR 50, Appendix E, Section IV.D were used as reference criteria.

b. Findings

No findings of significance were identified.

## 1EP3 Emergency Response Organization (ERO) Augmentation Testing

a. Inspection Scope

The inspector reviewed Entergy's emergency plan for facility staffing commitments. The qualification and staffing documents were reviewed to ensure that sufficient numbers of responders were available. The procedure for initiating ERO call-in was reviewed and walked-through with selected individuals responsible for its implementation. The inspector observed the actuation of the pagers and the automatic telephone call out systems during the August 1, 2002 drill. Condition reports and corrective actions related to ERO augmentation were reviewed. Training records for selected individuals were reviewed for completion. The review was conducted in accordance with NRC Inspection Procedure 71114, Attachment 03. The applicable planning standard, 10 CFR 50.47(b)(2), and the related requirements of 10 CFR 50, Appendix E were used as reference criteria.

b. Findings

No findings of significance were identified.

## 1EP4 Emergency Action Level (EAL) and Emergency Plan Changes

## a. Inspection Scope

During an in-office inspection on July 8-10, 2002, the inspector reviewed recent changes to emergency plan documents to determine if the changes resulted in a decrease of emergency plan effectiveness. The documents that were reviewed are listed in Attachment 1 of this inspection report. Entergy's 10 CFR 50.54(q) review process was assessed. The review was conducted in accordance with NRC Inspection Procedure 71114, Attachment 04. The applicable requirements in 10 CFR 50.47(b) and 10 CFR 50, Appendix E were used as reference criteria.

#### b. <u>Findings</u>

No findings of significance were identified.

## 1EP5 Correction of Emergency Preparedness Weaknesses and Deficiencies

a. Inspection Scope

The inspector reviewed corrective actions identified by Entergy during quality assurance audits and surveillances, exercise or drill reports, self-assessments, and from self-revealing problems resulting from regularly scheduled activities in 2001 and 2002. The status of issues identified by Entergy during the July 20, 2001 NRC-evaluated exercise were reviewed. Condition Reports assigned to the EP department were reviewed to determine significance of the issues, timeliness of resolution, and to determine if repeat problems were occurring. The inspector reviewed the reports for the 2000 and 2001 10 CFR 50.54(t) reviews to assess that the reviews met NRC requirements and if any repeat issues were identified. The reviews were conducted in accordance with NRC Inspection Procedure 71114, Attachment 05. The applicable planning standard, 10 CFR 50.47(b)(14), and the requirements in 10 CFR 50, Appendix E, Section IV.F.2.g were used as reference criteria.

b. Findings

No findings of significance were identified.

# 2. RADIATION SAFETY Occupational Radiation Safety [OS]

## 2OS1 Access Control to Radiologically Significant Areas

a. Inspection Scope

From September 9 - 12, 2002, the inspector conducted the following activities to verify that Entergy was properly implementing physical, engineering, and administrative controls for access to locked high radiation areas and other radiologically controlled areas, and that workers were adhering to these controls when working in these areas.

Implementation of the access control program was reviewed against the criteria contained in 10 CFR 20, technical specifications, and FitzPatrick procedures.

- Keys to high radiation areas were inventoried, and these areas were verified to be properly secured and posted during plant tours.
- Independent radiation surveys were performed in radiologically controlled areas of the Reactor Building, Turbine Building, and Radwaste Processing Building to confirm the accuracy of posted survey results, and assess the adequacy of radiation work permits (RWP) and associated controls.

The inspector attended pre-job RWP briefings and reviewed the exposure controls specified in the RWPs for the following jobs-in-progress:

- Mechanical maintenance technicians taking measurements and photographs in preparation for moving main steam isolation valve actuators by the drywell emergency escape hatch (RWP 02-006, Task 42)
- Engineering walkdown of structural components in the east pipe tunnel (RWP 02-009, Tasks 13 and 19)
- Operators performing the B core spray pump operability test (RWP 02-016, Task 34)

During plant tours the inspector observed the radiological controls implemented for the following tasks and interviewed workers regarding their knowledge of the RWP, electronic dosimetry setpoints, and work area radiological conditions:

- Transferring resin to the Duratek liquid processing system (RWP 02-008, Task 34)
- Paint removal from the lifting lugs to the shield plugs in preparation for performing a nondestructive examination (RWP 702)
- Removal of a rigging pin from the carousel to the refuel floor overhead crane (RWP 02-009, Task 43)

The inspector reviewed pertinent information regarding cumulative exposure history, departmental exposure trends, and plant survey records to assess the effectiveness in establishing exposure goals and in limiting worker dose. Also, reviewed were historical surveys to assess the effectiveness in reducing system source terms by hydrolazing and installing shielding.

## b. Findings

No findings of significance were identified.

# 3. SAFEGUARDS Physical Protection [PP]

#### 3PP1 Response to Contingency Events

The Office of Homeland Security (OHS) developed a Homeland Security Advisory System (HSAS) to disseminate information regarding the risk of terrorist attacks. The HSAS implements five color-coded threat conditions with a description of corresponding actions at each level. NRC Regulatory Information Summary (RIS) 2002-12a, dated August 19, 2002, "NRC Threat Advisory and Protective Measures System," discusses the HSAS and provides additional information on protective measures to licensees.

#### a. Inspection Scope

On September 10, 2002, the NRC issued a Safeguards Advisory to reactor licensees to implement the protective measures described in RIS 2002-12a in response to the Federal government declaration of threat level "orange." Subsequently, on September 24, 2002, the OHS downgraded the national security threat condition to "yellow" and a corresponding reduction in the risk of a terrorist threat.

The inspector interviewed Entergy personnel and security staff, observed security operations, and assessed implementation of the threat level "orange" protective measures. Inspection results were communicated to the region and headquarters security staff for further evaluation.

Following a threat advisory on October 10, 2002, the inspectors reviewed the status of security operations and assessed implementation of the protective measures in place as a result of the current, elevated threat environment.

b. Findings

No findings of significance were identified.

## 4. OTHER ACTIVITIES [OA]

## 4OA1 Performance Indicator Verification

a. Inspection Scope

The inspectors reviewed the data collection and system unavailability reported for the high pressure coolant injection, reactor core isolation cooling, and emergency AC power systems for the safety system unavailability performance indicators, and reactor coolant system activity and system leakage data for the barrier integrity cornerstone. The inspectors reviewed system engineer data for the systems and compared them to operator logs and system outages noted by the inspectors. The inspectors reviewed system diagrams and surveillance test procedures to verify that system availability was determined appropriately. The inspectors reviewed data for the past year, and performed detailed reviews of 2002 equipment unavailabilities.

The inspector also reviewed the process for identifying the data that is utilized to determine the values for the three EP performance indicators (PI); viz. 1) Drill and Exercise Performance, 2) ERO Participation, and 3) ANS Reliability. The review assessed data from 2001 and the first two quarters of 2002. Classification, notification, and protective action opportunities were reviewed from licensed operator requalification sessions and quarterly drills. Attendance records for drill and exercise participation were reviewed. Details of the siren testing and data collection were discussed with individuals responsible for that program. The inspector reviewed this data using the criteria of NEI 99-02, Regulatory Assessment Performance Indicator Guideline, Revision 2.

The inspector reviewed implementation of the Occupational Exposure Control Effectiveness Performance Indicator (PI) Program. Specifically, the inspector reviewed Condition Reports, and associated documents, for occurrences involving locked high radiation areas, very high radiation areas, and unplanned personnel exposures since the last inspection against the criteria specified in Nuclear Energy Institute (NEI) 99-02, Regulatory Assessment Performance Indicator Guideline, Revision 2, to verify that all occurrences that met the NEI criteria were identified and reported as Performance Indicators.

The inspector reviewed a listing of licensee event reports for the period of June 1, 2001 through August 31, 2002, for issues related to the public radiation safety performance indicator, which measures radiological effluent release occurrences per site that exceed 1.5 mrem/quarter whole body or 5.0 mrem/quarter organ dose for liquid effluents; 5 mrads/quarter gamma air dose, 10 mrad/quarter beta air dose, and 7.5 mrads/quarter for organ dose for gaseous effluents. The inspector reviewed the following documents to ensure Entergy met all requirements of the performance indicator from the second quarter 2001 to the second quarter 2002 (4 quarters):

- monthly projected dose assessment results due to radioactive liquid and gaseous effluent releases
- quarterly projected dose assessment results due to radioactive liquid and gaseous effluent releases
- dose assessment procedures
- b. Findings

No findings of significance were identified.

## 4OA2 Identification and Resolution of Problems

a. Inspection Scope

The inspectors reviewed items selected across the initiating events, mitigating systems, and barrier integrity reactor safety cornerstones to determine if problems were being properly identified, prioritized, entered into the corrective action program, and corrected. The inspectors evaluated deviation/event reports and condition reports to evaluate Entergy's threshold for problem identification and efforts to establish the scope of problems by reviewing pertinent logs, work requests, engineering evaluations,

surveillance test results, and self-assessments. The following condition reports were reviewed:

- 02-02720, HPCI flow controller 23FI-108-1 inoperable
- 02-02902, C tip machine proximity switch inoperable
- 02-02918, Below refuel floor ventilation system functional failures
- 02-02922, LCO 3.6.15 backup drywell temperature instruments
- 02-02945, Cracked carbon dioxide fire extinguisher hose
- 02-03391, HPCI lubricating oil contamination
- 02-03132, High RHR pump motor winding temperature during torus cooling
- 02-03264, Air flow exiting turbine building
- 02-03726, Tritium in cable tunnel sumps
- 02-03695, Tritium in reactor plant component cooling system samples

The inspectors also reviewed quality assurance surveillance reports, radiation protection department self-assessments, management observations, and programmatic internal appraisals relating to the implementation of physical, engineering, and administrative controls for performing work in radiologically controlled areas. The inspector also reviewed fourteen (14) condition reports, relating to the access control program, initiated between November 2001 and September 2002, to evaluate Entergy's threshold for identifying, evaluating, and resolving problems in implementing this program. This review was conducted against the criteria contained in 10 CFR 20, technical specifications, and FitzPatrick procedures.

b. Findings

No findings of significance were identified.

#### 4OA3 Event Follow-Up

.1 (Closed) LER 050333/2002-001-00: Both Trains of Core Spray and One RHR Pump Inoperable Due to Out of Tolerance Pumps Start Time Delay Relays. The events discussed in this LER are reviewed and documented as a non-cited violation in Section 1R22 of this inspection report. No new issues were identified and this LER is closed.

#### 4OA6 Meetings

#### .1 Exit Meeting Summary

On October 3, 2002, the resident inspectors presented their inspection results to Mr. T. Sullivan and members of the Entergy staff. The inspectors asked whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

#### 4OA7 Licensee-Identified Violations

On July 9, 2002, Entergy identified that a gate to a high radiation area, the B residual heat removal (RHR) system heat exchanger room, was left open for a period of about one hour. The deficiency was identified by a radiation protection supervisor and entered

into the corrective action program as CR-JAF-2002-02520. Failure to close the gate is contrary to Technical Specification 6.11 which requires that areas where dose rates are greater than 100 mrem per hour but less than 1000 mrem per hour be barricaded. Since the gate was left unsecured for a short time period and no inadvertent personnel entry was made into the high radiation area, this violation is of very low safety significance (Green) and is being treated as a non-cited violation.

# ATTACHMENT 1 SUPPLEMENTARY INFORMATION

#### a. Key Points of Contact

FitzPatrick

- T. Bergene Supervisor, ALARA Planning and Scheduling
- R. Brown Radiation Protection Supervisor
- K. Pushee Radiation Protection Manager
- B. O'Grady General Manager or Plant Operations
- T. Phelps Radiation Protection Supervisor
- T. Sullivan Site Executive Officer
- A. Zaremba Director, Safety Assurance
- A. Halliday Manager, Licensing
- D. Johnson Manager, Scheduling and Outages
- O. Limpias Director, Engineering
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- D. Ruddy Manager, CA&A
- D. Torbitt Assistant Operations Manager

## b. List of Items Opened or Closed

Opened and Closed

NCV 50-333/02-07-01: Inoperable core spray and residual heat removal timer relays

c. <u>List of Acronyms</u>

ALARA CFR CR CS ESW HPCI HSAS IST JAF LER NCV NRC	As low as reasonably achievable Code of Federal Regulations Condition report Core spray Emergency service water High pressure coolant injection Homeland Security Advisory System Inservice test James A. FitzPatrick Licensee event report Noncited violation Nuclear Regulatory Commission
-	
OHS	Office of Homeland Security
PCIS	Primary containment isolation system
RCA	Radiologically controlled area
RCIC	Reactor core isolation cooling
RHR	Residual heat removal
RWP	Radiation work permit

Attachment 1 (Cont.)

UFSAR Updated Final Safety Analysis Report

# d. List of Documents Reviewed

Procedures

AP-07.00, Radiation Protection Program, Rev. 6 AP-07.01, Radiation Work Permit Program, Rev. 8 AP-07.03, ALARA Program, Rev. 4 AP-07.05, Exposure Monitoring and Radiological Controls for Site & RCA Access, Rev. 7 AP-07.06, High Radiation Area Control, Rev. 11 RP-OPS-02.02, Radiation Work Permit, Rev. 7 RP-OPS-02.03, High Radiation Area Access and Key Control, Rev. 3 RP-OPS-02.04, Personnel Radiological Hold, Rev. 3 RP-OPS-03.01, Radiological Survey Performance and Documentation, Rev. 4 RP-OPS-03.03, Radiological Posting and Labels, Rev. 5 RP-OPS-03.05, Refuel Floor and Drywell Radiological Controls, Rev. 2 RP-OPS-08.01. Routine Surveys and Inspections. Rev. 10 RP-ALARA-01.01, ALARA Review, Rev. 4 Emergency Plan, Section 2, Rev. 18 Emergency Plan, Section 5, Rev. 36 Emergency Plan, Section 6, Rev. 24 Emergency Plan, Section 7, Rev. 24 Emergency Plan, Section 9, Rev. 16 Emergency Plan, Appendix C, Rev. 25 Emergency Plan, Appendix H, Rev. 26 IAP-1, Emergency Plan Implementation Checklist, Rev. 26 IAP-2, Classification of Emergency Conditions, Rev. 26 EAP-1.1, Offsite Notifications, Rev. 45 EAP-4, Dose Assessment Calculations, Rev. 30 EAP-4.1, Release Rate Determination, Rev. 14 EAP-5.3, Onsite/Offsite Downwind Surveys and Environmental Monitoring, Rev. 8 EAP-6, In-Plant Emergency Survey/Entry, Rev. 16 EAP-8, Personnel Accountability, Rev. 56 EAP-12, Dose Estimated From an Accidental Release of Radioactive Material to Lake Ontario, Rev. 11 EAP-13, Damage Control, Rev. 14 EAP-14.1, Technical Support Center Activation, Rev. 22 EAP-14.2, Emergency Operations Facility Activation, Rev. 20 EAP-15, Emergency Radiation Exposure Criteria and Control, Rev. 11 EAP-17, Emergency Organization Staffing, Rev. 100 EAP-20, Post Accident Sample, Offsite Shipment and Analysis, Rev. 9 EAP-23, Emergency Access Control, Rev. 11 EAP-24, EOF Vehicle and Personnel Decontamination, Rev. 9 EAP-27, Estimation of Population Dose Within 10 Mile Emergency Planning Zone, Rev. 10 EAP-42, Obtaining Meteorological Data, Rev. 17 EAP-43, Emergency Facilities Long Term Staffing, Rev. 56

# Attachment 1 (Cont.)

SAP-1, Maintaining Emergency Preparedness, Rev. 16

SAP-3, Emergency Communications Testing, Rev. 70

SAP-4, NYS/Oswego County Emergency Preparedness Photo Identification Cards, Rev. 9

SAP-6, Drill/Exercise Conduct, Rev. 17

SAP-10, Meteorological Monitoring System Surveillance, Rev. 11

SAP-11, EOF Document Control, Rev. 11

SAP-13, EOF Security and Fire Alarm Systems During Normal Operations, Rev. 4

SAP-16, Utilizing EPIC IDT Terminals from Destiny System, Rev. 4

# Quality Assurance Documents

Surveillance Report 2272, ALARA Performance

Surveillance Report 2287, High Integrity Container Preparation Surveillance Report 2296, Radiation Monitoring Instruments Surveillance Report 2305, High Radiation Area Entry during PFO-15 Surveillance Report 2309, Review and Evaluation of ALARA Preparedness for RO-15 Surveillance Report 2208, 2000 NRC Observed Emergency Plan Exercise Surveillance Report 2246, NRC Observed Emergency Planning Exercise July 19, 2001 Surveillance Report 2299, Emergency Planning NRC Performance Indicators Audit A00-11J, Emergency Preparedness Program Audit Audit A01-14J, Emergency Preparedness Program Audit

Radiation Protection Department Self-Assessments

JRP-02-029, Improved Technical Specifications incorporation into Radiation Protection Department Procedures

JRP-02-042, Locked High Radiation Area Gate Checks

JRP-02-048, Rad worker practices and related Human Performance

JRP-02-060, Dose Tracking for Personnel Moves

JRP-02-077, Status of RO-14 Radiation Protection Critique Items

JRP-02-082, Procedure Adherence Assessment and related Human Performance

JRP-02-086, Skill Set Verification and OJT/OJE Evaluation

JRP-02-089, First Quarter 2002 Restricted Area Dose Evaluation

JRP-02-091, Instrument Calibration Program

JRP-02-095, Radioactive Material Receipt

## Management Observations

JRP-02-109, July 2002 Radiological Data Assessment

JRP-02-100, June 2002 Radiological Data Assessment

JRP-02-102, Second Quarter 2002 Radiation Protection Program Roll-Up

JRP-02-080, Move of Control Rod Blade Rack from Equipment Storage Pit to Spent Fuel Pool

JRP-02-066, Reactor Water Clean-up System LCO

# <u>Miscellaneous</u>

JRP-APL-02-001, Radiation Field Control Program

#### Attachment 1 (Cont.)

Plant Access Student Handout for General Employee Training Radworker Student Handout for General Employee Training James A. FitzPatrick Updated Final Safety Analysis Report, Chapter 11 Improved Technical Specifications, Chapter 5

#### Condition Reports (CR-JAF-)

01-01478, 01-02018, 01-02819, 01-02821, 01-02822, 01-02824, 01-02825, 01-02826, 01-02827, 01-02829, 01-02830, 01-02831, 01-02833, 01-02834, 01-02835, 01-02836, 01-02837,

01-02840, 01-02841, 01-02842, 01-02856, 01-02857, 01-02858, 01-02859, 01-03292, 01-03699, 01-04296, 02-01701, 02-01868, 02-02520, 02-02429, 02-02345, 02-01703, 02-01602, 02-00973, 02-00887, 02-00879, 02-00546, 01-04885, 01-04561, 01-04384, 01-04358, 01-04329