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

SUBJECT: FITZPATRICK - NRC INSPECTION REPORT 50-333/01-13

Dear Mr. Sullivan:

On February 9, 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 February 21, 2002, with 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). This issue was determined to involve a violation of NRC requirements. However, because of its very low safety significance and because it has been entered into your corrective action program, the NRC is treating this issue as a Non-Cited violation, in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you deny this noncited violation, 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 the FitzPatrick facility.

Immediately following the terrorist attacks on the World Trade Center and the Pentagon, the NRC issued an advisory recommending that nuclear power plant licensees go to the highest level of security, and all promptly did so. With continued uncertainty about the possibility of additional terrorist activities, the Nation's nuclear power plants remain at the highest level of security and the NRC continues to monitor the situation. This advisory was followed by additional advisories, and although the specific actions are not releasable to the public, they generally include increased patrols, augmented security forces and capabilities, additional security posts, heightened coordination with law enforcement and military authorities, and more limited access of personnel and vehicles to the sites. The NRC has conducted various audits of your response to these advisories and your ability to respond to terrorist attacks with the capabilities of the current design basis threat (DBT). On February 25, 2002, the NRC issued an Order to all nuclear power plant licensees, requiring them to take certain additional interim compensatory measures to address the generalized high-level threat environment. With the issuance of the Order, we will evaluate Entergy Nuclear Northeast's compliance with these

interim requirements.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <a href="http://www.nrc.gov/reading-rm.html">http://www.nrc.gov/reading-rm.html</a> (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 50-333/01-13
Attachment: Supplemental Information

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

B. O'Grady, General Manager, Entergy Nuclear Operations

J. Knubel, VP Operations Support H. Salmon, Director of Oversight A. Halliday, Licensing Manager

M. Kansler, Chief Operating Officer, Entergy

D. Pace, VP Engineering

J. Fulton, Assistant General Counsel

Supervisor, Town of Scriba

J. Tierney, Oswego County Administrator

C. Donaldson, Esquire, Assistant Attorney General, New York Dept of Law P. Eddy, Electric Division, Department of Public Service, State of New York

W. Flynn, President, New York State Energy Research

and Development Authority

S. Lousteau, Treasury Department

T. Judson, Central New York Citizens Awareness Network

<u>Distribution</u> w/encl: (VIA E-MAIL)

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# U.S. NUCLEAR REGULATORY COMMISSION

#### REGION I

Docket No.: 50-333

License No.: DPR-59

Report No.: 50-333/01-13

Licensee: Entergy Nuclear Northeast

Facility: James A. FitzPatrick Nuclear Power Plant

Location: 268 Lake Road

Scriba, New York 13093

Dates: January 1 - February 9, 2002

Inspectors: R. A. Rasmussen, Senior Resident Inspector

D. A. Dempsey, Resident Inspector

P. R. Frechette, Physical Security Inspector

T. H. Fish, Operations Engineer

J. M. D'Antonio, Operations Engineer

Approved by: Glenn W. Meyer, Chief

Projects Branch 3

**Division of Reactor Projects** 

#### SUMMARY OF FINDINGS

IR 05000333-01-13, on 01/01 - 02/09/02; Entergy Nuclear Northeast, James A. FitzPatrick Nuclear Power Plant, temporary plant modifications.

The report covers a six-week inspection by resident inspectors, a baseline inspection of the security program, and a baseline inspection of the licensed operator requalification program. One finding of significance were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at <a href="http://www.nrc.gov/reactors/operating/oversight.html">http://www.nrc.gov/reactors/operating/oversight.html</a>.

#### Inspector Identified Findings

Green. The inspectors identified that a temporary modification to install a data recorder to the B reactor water recirculation pump motor generator speed control circuit was inadequate. The temporary modification failed to address seismic concerns with the control room cabinet door that could have resulted in an inadvertent plant transient. The cabinet door was left open due to the protruding wires and was not restrained.

This issue was considered more than minor because of the potential for a plant transient if the door were to close on the protruding wires. However, this issue was determined to be of very low safety significance using phase one of the SDP because the modification would not cause the failure of any mitigation systems. This issue was considered a noncited violation of NRC requirements.

#### Licensee Identified Findings

None

#### REPORT DETAILS

#### **SUMMARY OF PLANT STATUS**

The reactor operated at full power for the majority of the inspection period.

#### 1. REACTOR SAFETY

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

#### 1R01 Adverse Weather Protection

## a. <u>Inspection Scope</u>

The inspector reviewed the implementation of site cold weather preparations. This included the cold weather preparation checklist, AP-12.04, a tour of outdoor facilities, and a review of the procedures used to test outdoor heat tracing circuits.

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

No findings of significance were identified.

## 1R04 Equipment Alignments

#### a. <u>Inspection Scope</u>

The inspectors performed a complete walkdown of all accessible portions of the low pressure coolant injection (LPCI) motor-operated valve (MOV) independent power supplies. The documents reviewed that are applicable to system alignment and operational requirements included:

- OP-43C, LPCI Independent Power Supply System
- FE-1Y, 600V One Line Diag Sh.14 71MCC-332, -342, 155, & 165
- JTS-95-0247, LPCI A Battery Voltage Voltmeter Readings
- ST-16G, LPCI MOV Independent Power Supply Monthly Test
- ESK-6EY, Elementary Diagram Circuits HVAC LPCI Battery Room A Ventilation
- ESK-6J, Elementary Diagram 600V Circuit Maintenance Feeds to LPCI Buses
- ESK-6K, Elementary Diagram 600V Circuits MCC AC Input to LPCI MOV Independent Power Supplies
- FE-1AW, 120V AC One Line Diagram Normal & Instrument Bus D6, (Power) Distribution Panels 71ACB5, 71ACA5, 71EBAC1 & 71SWAC1

In addition, the inspectors reviewed the applicable sections of the updated final safety analysis report, design basis documents, and the individual plant evaluation, the corrective action program and maintenance backlogs, and the system health report.

The inspectors also performed the following partial equipment alignment walkdowns:

 B residual heat removal (RHR) and residual heat removal service water (RHRSW) walkdowns during planned A RHR/RHRSW limiting condition of operation (LCO) maintenance

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.

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

No findings of significance were identified.

## 1R05 <u>Fire Protection</u>

### a. <u>Inspection Scope</u>

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 zone CT-2, east cable tunnel
- Fire zone CT-1, west cable tunnel
- Fire zones EG-1, EG-2, and EG-3, south emergency diesel generator spaces

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

No findings of significance were identified.

## 1R11 Licensed Operator Requalification

#### a. Inspection Scope

The following inspection activities were performed using NUREG-1021, Rev. 8, "Operator Licensing Examination Standards for Power Reactors," Inspection Procedure Attachment 71111.11, "Licensed Operator Requalification Program," and NRC Manual Chapter 0609, Appendix I, "Operator Requalification Human Performance Significance Determination Process (SDP)," as acceptance criteria.

The inspectors reviewed documentation of operating history since the last requalification program inspection. This period covered January 2000 through January 2002. Documents reviewed included NRC inspection reports, licensee event reports, and deficiency reports. The inspectors did not detect operational events that were indicative of possible training deficiencies.

The operating tests for the week of January 28, 2002, were reviewed for quality as well as how much test item overlap existed between exam weeks.

The inspectors observed the dynamic simulator exams and JPMs being administered. These observations included facility evaluations of crew and individual performance on the dynamic simulator exam.

Simulator performance and fidelity were reviewed for conformance with the reference plant control room. The inspectors also reviewed simulator deficiency reports.

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

A sample of remediation plans for individual failures for the past two year program cycle were reviewed to assess the effectiveness of remedial training. Also, instructors and training and operations managers as well as a sample of individual licensed operators were interviewed for feedback regarding the implementation of the licensed operator requalification program.

On February 19, 2002, the inspector also performed an in-office review of licensee requalification exam results for the complete 2002 annual testing cycle. The inspection assessed whether pass rates were consistent with the guidance of NRC Manual Chapter 0609, Appendix I, "Operator Requalification Human Performance Significance Determination Process (SDP)". These statistics do not include two operators who developed the exam but will be evaluated in August 2002. Also, the biennial written exam was not administered this exam cycle. The inspector verified that:

- Crew pass rate was greater than 80%. (Pass rate was 100%.)
- Individual pass rate on the dynamic simulator test was greater than or equal to 80%. (Pass rate was 100%.)
- Individual pass rate on the walk-through test was greater than or equal to 80%. (Pass rate was 100%.)
- Overall pass rate among individuals for all portions of the exam was greater than or equal to 75%. (Pass rate was 100%.)

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

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:

- LPCI motor-operated valve independent power supplies
- Normal service water system

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

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

No findings of significance were identified.

### 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 LCO maintenance on the A RHR/RHRSW system and the A LPCI motor-operated valve independent power supply inverter during the week of January 12
- Emergent LCO maintenance concerning higher than expected A RHRSW pump vibration on January 10
- Noise measurement and adjustment of APRM flow-biased reactor trip/recirculation system flow transmitters during the week of January 19
- Unplanned corrective maintenance in response to a turbine building service water return header pipe break during the week of January 26

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 final safety analysis report (FSAR) 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. <u>Findings</u>

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 FSAR and technical specifications for the discrepant conditions.

- DER-02-00333, Leak/Piping crack downstream of 46SWS-6C
- DERs-02-00344 and 02-00343, 17RM-452B reactor building ventilation exhaust radiation monitor spiking
- DER-02-00308, RHRSW pump 10P-1C oil leak

## b. Findings

No findings of significance were identified.

#### 1R19 Post Maintenance Testing

## a. <u>Inspection Scope</u>

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

- RHR/RHRSW system maintenance activities during the week of January 12
- Adjustment of the east diesel generator fire pump governor during the week of January 9

### b. Findings

No findings of significance were identified.

#### 1R22 Surveillance Testing

#### a. <u>Inspection Scope</u>

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

- ST-24J, RCIC Flow Rate and Inservice Test (IST)
- ST-2XA, RHR Service Water Loop A Quarterly Operability Test (IST)
- TST-45, RHRSW Pump Baseline Performance Test
- ST-2AM, RHR Loop B Quarterly Operability Test (IST)

The inspector reviewed technical specifications, the FSAR, and Part 6 (OM-6) of ASME/ANSI Oma-1988, Inservice Testing of Pumps in Light Water Reactor Plants, and verified that the testing met appropriate test objectives.

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

No findings of significance were identified.

#### 1R23 Temporary Plant Modifications

## 1. Temporary Control Room Instrumentation

#### a. <u>Inspection Scope</u>

The inspector reviewed temporary modification 01-044, revision 2, to install a data recorder to the B reactor water recirculation pump motor generator speed control circuit. The recorder was necessary to troubleshoot pump speed anomalies. The inspector also performed a field walkdown and reviewed the site procedure for performing temporary facility changes, AP-05.02, "Control of Temporary Modifications".

#### b. Findings

The inspectors identified that a temporary modification to install a data recorder to the B reactor water recirculation pump motor generator speed control circuit was inadequate. The temporary modification failed to address seismic concerns with the control room cabinet door that could have resulted in an inadvertent plant transient. This issue was determined to be Green (of very low safety significance) using phase one of the SDP because the modification did not adversely affect any safety systems. This issue was dispositioned as a non-cited violation.

The temporary modification installed a multi-channel data recorder to the control circuits for the B reactor water recirculation pump motor generator speed control circuit. The recorded was connected using temporary leads that passed through the open control room cabinet door. The door was ajar and was not restrained. There was some effort to protect the wires, however if the door had been forced closed the wires would have been pressed against the metal cabinet sill which could have caused a short circuit. This temporary modification was anticipated to be in place for about one year, therefore increasing the concern for this condition.

The temporary modification procedure had a checklist of items to consider regarding the proposed modification. However, it appeared that the checklist was completed without an adequate evaluation of the open door. In response to the inspectors' concerns, the door was removed form the hinges and personnel access to the area was restricted with barrier tape. The inspector considered this resolution adequate.

The failure to adequately evaluate the open cabinet door was considered more than minor because of the potential for a plant transient if the door were to close on the protruding wires. However, this issue was determined to be of very low safety significance (Green) using phase one of the SDP, because the modification would not cause the failure of any mitigation systems. This failure to adequately review the design change implemented by the temporary modification was a violation of 10CFR50, Appendix B, Criterion III, "Design Control", that requires appropriate standards be specified in design change documents. This violation is being treated as a non-cited

violation, consistent with Section VI.A of the Enforcement Policy, issued on May 1, 2000 (65FR25368). The issues associated with this violation are in the corrective action system as DER 01-5027. (NCV 050333/2001013-001)

## 2. Other Temporary Modifications

#### a. Inspection Scope

The inspectors reviewed temporary modifications (TMODs) 01-035, Install Sheet Metal Air Dam in 66FN-13A Suction Duct, and 02-0005, Service Water System Pipe Patch. The inspectors verified that the modifications were controlled in accordance with applicable procedures, and reviewed the modifications for impact on control room operations and 10 CFR 50.59 applicability. The inspectors performed a walkdown of TMOD 02-0005 to ensure consistency with the TMOD documentation.

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

No findings of significance were identified.

#### 3. Safeguards (Cornerstone Physical Protection)

## 3PP1 Access Authorization Program (71130.01)

#### a. Inspection Scope

The following activities were performed to determine the effectiveness of the behavior observation portion of the personnel screening and fitness-for-duty programs as measured against the requirements of 10 CFR 26.22 and Entergy's Fitness-for- Duty Program documents.

Five supervisors representing the engineering, building and grounds, maintenance, radiation protection and configuration management departments were interviewed on January 30 and 31, 2002, regarding their understanding of behavior observation responsibilities and the ability to recognize aberrant behavior traits. Two (2) Access Authorization/Fitness-for-Duty self-assessments, two semi-annual Fitness-for-Duty performance data reports, an audit, and event reports and loggable events for the four previous quarters were reviewed during January 28-31, 2002. On January 30 and 31, 2002, five (5) individuals who perform escort duties were interviewed to establish their knowledge level of those duties. Behavior observation training procedures and records were reviewed on January 29, 2002.

#### b. Findings

No findings of significance were identified.

## 3PP2 <u>Access Control</u> (71130.02)

#### a. Inspection Scope

The following activities were performed to verify that Entergy had effective site access controls, and equipment in place designed to detect and prevent the introduction of contraband (firearms, explosives, incendiary devices) into the protected area as measured against 10 CFR 73.55(d) and the Physical Security Plan and Procedures.

Site access control activities at the personnel access point were observed, including personnel and package processing through the search equipment during peak ingress periods on January 28-31. On January 29 testing of all access control equipment at the personnel access point; including metal detectors, explosive material detectors, and X-ray examination equipment, was observed. A vehicle search, performed by a security force member, was observed on January 30. The lock and key inventory and control program was reviewed on January 30. The Access Control event log, staffing rosters, an audit, and three (3) maintenance work requests were also reviewed.

#### **Findings**

No findings of significance were identified.

#### 4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

#### a. Inspection Scope

The inspector reviewed the programs for gathering, processing, evaluating and submitting data for the Fitness-for-Duty, Personnel Screening, and Protected Area Security Equipment Performance Indicators. The review included tracking and trending reports, personnel interviews and security event reports for the Performance Indicator data collected from the 1st quarter of 2001 through the 4th quarter of 2001.

#### b. Findings

No findings of significance were identified.

## 4OA6 Meetings

## **Exit Meeting Summary**

On February 21, 2002, the resident inspectors presented their inspection results to Mr. B. O'Grady 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.

# ATTACHMENT 1 SUPPLEMENTAL INFORMATION

#### a. Key Points of Contact

P. Berry Manager, Training and Development

J. Cantrell
 J. Flaherty
 G. Fronk
 Operations Improvement
 Manager, Quality Assurance
 LORT Program Administrator

J. Haley Manager, Security
A. Halliday Manager, Licensing

D. Johnson Manager, Scheduling and Outages

A. Khanifar Manager of Engineering

W. Maguire General Maintenance Manager

B. O'Grady General Manager of Plant Operations

S. Reininghaus Operations Training Supervisor

P. Russell Operations Manager
T. Sullivan Site Executive Officer
A. Zaremba Director, Safety Assurance

## b. <u>List of Items Opened, Closed and Discussed</u>

#### Opened and Closed

NCV 50-333/01-13-01: The failure to adequately review a design change

implemented by a temporary modification.

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

CFR Code of Federal Regulations

DBT Design Basis Threat
DER Deviation/Event Report
FSAR Final Safety Analysis Report

HVAC Heating, ventilation, and air conditioning

IST In-Service Test

JPM Job Performance Measures LCO Limiting Condition of Operation LPCI Low pressure coolant injection

MCC Motor control center MOV Motor operated valve NCV Non-Cited Violation

RCIC Reactor core isolation cooling

RHR Residual Heat Removal

RHRSW Residual Heat Removal Service Water SDP Significance Determination Process SSC Systems, Structures, and Components

TMOD Temporary Modification

#### d. List of Documents Reviewed

Plant Access/Fitness for Duty General Employee Training - GET-PAT.301, Rev.0, May 2, 2001.

Audit Report A01-08J, JAF Physical Security Program, July 1, 2001 Audit Report A01-06J, Fitness for Duty, Access Authorization and PADS,

August 31, 2001

Semi-annual FFD Performance Data, July 1, 2001 - December 31, 2001 Semi-annual FFD Performance Data, January 1, 2001 - June 30, 2001

J. A. FitzPatrick Physical Security Plan, Rev. 21, October 22, 2001

JAF-CALC-ELEC-01857, 419 Volt DC LPCI Power Supply System 3A and 3B Sizing, Revision 0, dated November 2, 1994

JAF-CALC-ELEC-00562, LPCI Battery Testing Duty Cycle, Revision OA, dated September 23, 1998

JAF-CALC-ELEC-02213, LPCI UPS System Testing Load Bank Characteristics and LPCI Battery and Inverter On Line Testing Conditions and/or Limitation, Revision 0, dated April 19, 1996

JAF-CALC-ELEC-00563, Testing Duty Cycle, Revision 3, dated April 23, 1996 Work request 98-6043-01: MST 071.30 LPCI Charger-Inverter Performance and LPCI Battery Service Surveillance Test\* for Train A

Work request 00-08701-00: MST 071.30, LPCI Charger-Inverter Performance and LPCI Battery Service Surveillance Test\* for Train B

JAF-CALC-ELEC-04264, Declaring "B" LPCI Battery Operable Following MST-71.30, Revision 0, dated March 20, 2001

DBD-071, Electrical Distribution Systems