June 19, 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 - NRC INSPECTION REPORT 50-333/02-04

Dear Mr. Sullivan:

On May 11, 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 May 23, 2002, with Mr. Art Zaremba 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.

On the basis of the results of this inspection, no findings of significance were identified.

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 http://www.nrc.gov/reading-rm.html (the Public Electronic Reading Room).

Sincerely,

/RA/

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

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

Enclosure: Inspection Report 50-333/02-04
Attachment: Supplemental Information

cc w/encl: J. Yelverton, CEO, Entergy Operations
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J. Knubel, VP Operations Support
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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.:	50-333
License No.:	DPR-59
Report No.:	50-333/02-04
Licensee:	Entergy Nuclear Northeast
Facility:	James A. FitzPatrick Nuclear Power Plant
Location:	268 Lake Road Scriba, New York 13093
Dates:	March 31 - May 11, 2002
Inspectors:	R. A. Rasmussen, Senior Resident Inspector D. A. Dempsey, Resident Inspector Paul Kaufman, Senior Reactor Inspector, Systems Branch, DRS Harold Gray, Senior Reactor Inspector, Systems Branch, DRS Julia Myers, Project Engineer, Spent Fuel Project Office, NMSS Robert Taylor, Intern, Reactor Systems Branch, NRR
Approved by:	Glenn W. Meyer, Chief Projects Branch 3 Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000333-02-04, on 03/31 - 05/11/02; Entergy Nuclear Northeast, James A. FitzPatrick Nuclear Power Plant, resident inspection.

The report covers a six-week inspection by resident inspectors. The report also covers a specialist inspection of independent spent fuel storage program operational activities. No findings of 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

None

B. Licensee Identified Findings

None

REPORT DETAILS

SUMMARY OF PLANT STATUS

The reactor operated at full power for the majority of the inspection period. One unplanned reduction of reactor power greater than twenty percent occurred during this period. On May 6, 2002, reactor power was reduced to 75% due main condenser tube leakage. Two planned reactor power reductions occurred: on April 18, 2002 for a control rod pattern adjustment, and another on May 16, to repair more main condenser tube leaks and to de-fish the main condenser waterboxes.

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

1R04 Equipment Alignments

a. Inspection Scope

The inspectors performed the following partial equipment alignment walkdowns:

- High pressure coolant injection (HPCI) system during performance of ST-24J, RCIC Flow Rate and Inservice Test (IST)
- Reactor core isolation cooling (RCIC) and automatic depressurization systems during planned maintenance on the HPCI 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.

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 SP-1, SP-2, FP-1, and FP-3, screenwell pump rooms (elevation 255 feet)
- Fire zones EG-3, EG-4, and EG-6, north emergency diesel generator spaces (elevation 272 feet)

b. Findings

No findings of significance were identified.

1R06 Flood Protection

a. Inspection Scope

The inspector reviewed the JAF Individual Plant Examination (IPE) and the Updated Final Safety Analysis Report (UFSAR) concerning external flooding events. The inspector determined that a failure of the reactor building roof drain system had the ability to cause a failure of the reactor building roof. The inspector reviewed Entergy's procedures for periodic inspections of the reactor building roof drain system, and the results of the past three inspections.

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance

a. Inspection Scope

The inspector verified that Entergy's maintenance, testing, and inspection program for the residual heat removal (RHR) heat exchangers ensured that design heat removal capability was maintained. The inspector reviewed the heat exchanger test methodology contained in ST-2Y, RHR Heat Exchanger Performance Test*, against design calculation JAF-CALC-RHR-02953, RHR Heat Exchanger K-Value with Reduced Tube Side Fouling Factor, and the methods described in EPRI TR-107397, Service Water Heat Exchanger Guidelines. Selected test performance data were reviewed to verify that the results accurately reflected the condition of the heat exchangers and that their operation was consistent with design. Also, a sample of deficiencies related to heat exchanger performance were reviewed to verify that Entergy entered problems into the corrective action program, and completed appropriate and timely corrective actions.

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:

- Control room and relay room ventilation system
- Emergency diesel generator and switchgear room ventilation 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. Findings

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:

- Work week schedule changes for motor lead inspections during the week of April 12, 2002
- Planned maintenance on the HPCI and instrument air systems on April 29, 2002

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.

- DER-02-01657, General Electric Company 10 CFR Part 21 Notification SC02-04, Early Trip of J-Core Molded Case Circuit Breakers

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:

- Retest activities performed following RHR system maintenance, including a weld repair to the A RHR service water strainer
- Test of the HPCI turbine steam supply stop valve hydraulic cylinder for bypass leakage on April 30
- Installation of thermowells in the HPCI turbine casing piping per modification JE-00-056 on May 1
- Replacement of HPCI inverter power supply 23P/S-105 on May 2
- Replacement of HPCI steam supply downstream isolation valve 23SOV-43 on May 2

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

a. Inspection Scope

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

- ST-4E, HPCI and SGT Logic System Functional Test and Simulated Automatic Actuation Test

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

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 residual heat removal (RHR) system safety system unavailability performance indicator. The inspectors performed a detailed review of the A RHR system outage performed the week of April 8, 2002. The inspectors also reviewed data for RHR system outages from the start of the current assessment period.

b. Findings

No findings of significance were identified.

4OA2 Problem Identification and Resolution

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 (DERs) 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 DERs were reviewed:

- 01-04770, Spent fuel pool cooling pump bearing failed
- 02-01880, Adverse trend in degraded motor leads
- 02-01886, RHR heat exchanger partition plate inspection descoped from RO15
- 02-01609, Emergency diesel generator room running drain trap found dry
- 02-01729, Ineffective corrective action for 46SWS-60A/B leakage
- 02-01685, Below refuel floor ventilation system functional failures
- 02-01628, Excessive safety relief valve leakage
- 02-01527, Seismic event
- 02-01279, Adverse trend in plant down power events
- 02-01225, Check valves not disassembled/inspected during RO14
- 02-01477, Service water system pipe support wear

b. Findings

No findings of significance were identified.

4OA5 Independent Spent Fuel Storage Installation (ISFSI)

.1 Pre-Operational Testing of an ISFSI (IP 60854)

a. Inspection Scope

During the week of April 1, 2002, the inspectors evaluated Entergy's readiness to begin the first loading of spent fuel into a multi-purpose canister (MPC) and HI-TRACK

transfer cask, and move the HI-STORM 100 cask to the on-site ISFSI storage pad. The inspectors observed and reviewed components of the dry cask storage system (DCSS) including the MPC, the HI-TRACK transfer cask, the HI-STORM 100 cask, the low profile transport device, the helium fill temperature control unit, the welding equipment, the drain system, the vacuum system, and the storage pad to assess their ability to perform the intended function.

The inspectors reviewed various documentation and procedures, and observed selected activities to ensure they met and were consistent with the terms and conditions of the Certificate of Compliance (CoC) for the ISFSI project. This included a review of the documentation for the on-site placement of concrete in the HI-STORM 100 casks nos. 15,16 and 17, a review of the helium backfill method and calculation, observation of welded mockups, and a review of the welding and non destructive examination (NDE) sequence. The inspectors also verified the adequacy of selected sections of the 10 CFR 72.212 evaluation.

The inspectors also evaluated the extent of qality asurance (QA) involvement in the project through audits and surveillances. The scope and findings of an Entergy audit performed from March 18-28, 2002 were reviewed to verify appropriate oversight of ISFSI activities.

b. Findings

No findings of significance were identified.

.2 Operation of an Independent Spent Fuel Storage Installation (IP 60855)

a. Inspection Scope

During the week of April 15, 2002, the inspectors reviewed various documents and procedures, and observed selected activities related to transferring the spent fuel from the spent fuel pool to the dry cask storage system. This included a review and observation of MPC loading, sealing, and transporting activities. The applicable procedures were reviewed to determine if they provided clear instructions to users, established limitations and action levels consistent with CoC requirements, and directed workers on what to do if unsafe conditions arose. The acceptance criteria established in the procedures was reviewed against the requirements and commitments specified in the Updated Final Safety Analysis Report (UFSAR), Safety Evaluation Report (SER), CoC (Certificate No. 1014), HI-STORM 100 Cask System, and 10 CFR Part 72. The inspectors also discussed the various procedures and processes with Entergy Personnel performing the ISFSI activities.

The inspectors reviewed activities related to transferring spent fuel from the spent fuel pool to the MPC. The inspectors examined spent fuel bundle records to verify that the selected spent fuel rods for initial dry cask storage offloading met the requirements contained in spent fuel characterization calculations. The inspectors reviewed available information relative to the methods for verifying and documenting the parameters and characteristics of spent fuel placed in the MPC. The inspectors reviewed these activities

against the criteria contained in the CoC No. 1014, Amendment No. 0, and the Technical Specifications.

The inspectors reviewed radiation protection planning and preparation activities, radiation work permits, dose calculations, and the specific radiological hazards identified and the controls to be implemented for the dry cask storage system loading and transferring activities. When the MPC and HI-TRAC transfer cask were moved from the spent fuel pool to the refuel floor, the inspectors observed decontamination of the HI-TRAC cask and reviewed the radiological survey forms prior to MPC lid-to-shell welding. Contamination and dose rate results were examined. The inspectors reviewed these activities against the criteria contained in the CoC No. 1014, Amendment No. 0, the Technical Specifications, and 10 CFR 20.

The inspectors reviewed portions of the MPC welding operation. The inspectors observed and reviewed these activities to verify that procedure GWP-05 was followed, safe work practices were utilized, and questions that arose during the process were documented and resolved.

The inspectors reviewed QA audit reports and performance monitoring assessments of ISFSI operational implementation activities to evaluate the effectiveness of QA and to verify that issues identified by QA were being adequately addressed, tracked, and resolved. In addition, QA inspectors performing oversight activities of the loading activities were interviewed to assure their understanding of the ISFSI requirements.

The inspectors reviewed a sample of 10 CFR 72.48 screening/evaluations to confirm that a documented and acceptable program was in place for performing design changes or evaluating nonconforming conditions.

b. Findings

No findings of significance were identified.

4OA6 Meetings

Exit Meeting Summary

On May 23, 2002, the resident inspectors presented their inspection results to Mr. A. Zaremba 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.

The inspectors presented the inspection results of the ISFSI inspections to Mr. Brian O'Grady, Plant Manager, and other members of the Entergy staff on April 4 and April 18, 2002. The inspectors examined some proprietary items during the inspection; these

were returned to Entergy, and inspectors verified no proprietary information was included in this report.

ATTACHMENT 1
SUPPLEMENTARY INFORMATION

a. Key Points of Contact

N. Chapman	Welding Engineer
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
K. Phy	Senior Project Manager, ISFSI
R. Plasse	Licensing
P. Russell	Operations Manager
T. Sullivan	Site Executive Officer
A. Zaremba	Director, Safety Assurance

b. List of Acronyms

CFR	Code of Federal Regulations
CoC	Certificate Of Compliance
DBT	Design Basis Threat
DCSS	Dry Cask Storage System
DER	Deviation/Event Report
EDG	Emergency Diesel Generator
HPCI	High pressure coolant injection
IPE	Individual Plant Evaluation
ISFSI	Independent Spent Fuel Storage Installation
IST	Inservice Test
MPC	Multi Purpose Canister
NDE	non Destructive Examination
NRC	Nuclear Regulatory Commission
QA	Quality Assurance
RHR	Residual Heat Removal
RCIC	Reactor Core Isolation Cooling
SER	Safety Evaluation Report
SGT	Standby Gas Treatment
UFSAR	Updated Final Safety Analysis Report

List of Documents Reviewed (ISFSI Project)

Procedures

MP-19.07, Rev. 2, MPC Transfer and Hi-Storm Movement
MP-19.06, Rev. 1, MPC Loading and Sealing
GWP-5, Spent Fuel Cask Welding

Calculations

JAF-RPT-MISC-04364, Fuel Characterization For Storage in the ISFSI
JAF-CALC-MISC-04239, Calculation to Identify Fitzpatrick Fuel for Dry Cask Storage

Miscellaneous

ALARA Review No. 02-042, ISFSI
ALARA Review No. 01-032, Dry Cask Transfer
Radiation Work Permit No. 020045, Dry Cask Storage Work
Survey Number Log Book
ISFSI Plan of the Day Meeting Minutes
10 CFR 72.48 Screen for Procedure Change MP-19.07, Rev. 1 & Rev. 2, MPC Transfer and Hi-Storm Movement
10CFR72.48 Evaluation JAF-ISFSI-01-001, Rev. 0