July 30, 2004

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

SUBJECT: JAMES A. FITZPATRICK NUCLEAR POWER PLANT - NRC INTEGRATED INSPECTION REPORT 05000333/2004003

Dear Mr. Sullivan:

On June 30, 2004, the Nuclear Regulatory Commission (NRC) completed an inspection at your James A. FitzPatrick Nuclear Power Plant. The enclosed integrated inspection report documents the inspection findings that were discussed on July 12, 2004, with Mr. Kevin Mulligan and other members of your staff.

The inspections 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 NRC-identified finding of very low safety significance (Green). This finding was determined to involve a violation of NRC requirements. However, because of its very low safety significance and because it was 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 non-cited violation, you should provide a response with the basis for your 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.

In accordance with 10 CFR 2.390 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 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
Reactor Projects Branch 3
Division of Reactor Projects

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

Enclosure: Inspection Report 05000333/2004003
w/Attachment: Supplemental Information

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REGION I

Docket No.:	50-333
License No.:	DPR-59
Report No.:	05000333/2004003
Licensee:	Entergy Nuclear Northeast (Entergy)
Facility:	James A. FitzPatrick Nuclear Power Plant
Location:	268 Lake Road Scriba, New York 13093
Dates:	April 1, 2004 - June 30, 2004
Inspectors:	L. M. Cline, Senior Resident Inspector D. A. Dempsey, Resident Inspector B. J. Fuller, Resident Inspector, Nine Mile Point J. D. Noggle, Sr. Health Physicist E. C. Knutson, Resident Inspector, Nine Mile Point
Approved by:	Eugene W. Cobey, Chief Reactor Projects Branch 3 Division of Reactor Projects

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SUMMARY OF FINDINGS

IR 05000333/2004003; 04/01/2004 -06/30/2004; James A. FitzPatrick Nuclear Power Plant; Licensed operator requalification.

The report covered a three-month period of inspection by resident inspectors, a senior health physicist, and regional specialist inspectors. One Green non-cited violation (NCV) 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 3, dated July 2000.

A. Inspector Identified and Self-Revealing Findings

Cornerstone: Mitigating Systems

- Green. The inspectors identified an NCV of 10 CFR 55.49 when they observed each operator of a crew using the same copy of an approved procedure to complete a job performance measure (JPM) during the annual operating test. The inspectors determined that the test was potentially compromised because an operator using this copy of the procedure could have identified the procedure steps necessary to successfully complete the JPM based on placekeeping marks made by previously tested operators.

  Traditional enforcement does not apply because the issue did not have any actual safety consequences or potential for impacting the NRC's regulatory function and it was not the result of any willful violation of NRC requirements. The violation was more than minor because it adversely affected the mitigating systems cornerstone attribute of human performance. A licensed operator without the requisite skills and knowledge could have passed the annual requalification operating test, and this could have affected the ability of operators to respond to an initiating event and prevent undesirable consequences. Based on IMC 0609, Appendix I, "Operator Requalification Human Performance SDP," the finding was of very low safety significance because Entergy took immediate corrective actions and there was no evidence of actual exam compromise.

B. Licensee-Identified Violations

None.

REPORT DETAILS

Summary of Plant Status

Except for routine power reductions for control rod pattern adjustments and surveillance testing, the reactor operated at or near rated power during most of the inspection period. On May 12 an unplanned power reduction to 73% occurred due to main condenser fouling during intake bay cleaning. Full power operation was restored on May 13.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

a. Inspection Scope (71111.01 - 1 sample)

The inspectors reviewed and verified completion of the operations department warm weather preparation checklist contained in administrative procedure (AP)-12.04, "Seasonal Weather Preparations." The inspectors reviewed the operational status of the control and relay rooms, and the reactor and turbine buildings, reviewed the procedural limits and actions associated with elevated lake temperature, and walked down accessible areas of the buildings to assess the effectiveness of ventilation systems.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04)

a. Inspection Scope

Partial System Walkdown. (71111.04Q - 3 samples) The inspectors performed three partial system walkdowns to evaluate the operability of one train while the opposite train was inoperable or out of service for maintenance and testing. The inspectors compared system lineups to system operating procedures (OPs), system drawings, and the applicable chapters in the Updated Final Safety Analysis Report (UFSAR). The inspectors also verified the operability of critical system components by observing component material condition during the system walkdown and reviewing the maintenance history for each component. The inspectors performed partial walkdowns of the following systems:

- A residual heat removal (RHR) while B RHR was out of service on April 20 for planned maintenance;
- Emergency service water (ESW) loop B electric bay unit cooler on May 25 while ESW loop A electric bay unit cooler was out of service for planned maintenance; and

- A and B emergency diesel generator (EDG) trains on June 8 while the Lighthouse Hill 115 kV line 3 was out of service for planned maintenance on breaker 71BRK-10022.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

a. Inspection Scope (71111.05Q - 11 samples)

The inspectors toured 11 areas important to reactor safety to evaluate conditions related to Entergy's control of transient combustibles and ignition sources; the material condition, operational status, and operational lineup of fire protection systems, equipment and features; and the fire barriers used to prevent fire damage or fire propagation. The inspectors used procedure ENN-DC-161, "Transient Combustible Program," in performing the inspection. The areas inspected included:

- Cable spreading room, elevation 272 feet, fire area 07/zone CS-1;
- Reactor building, elevation 326 feet, fire area 09/zone RB-1A;
- Reactor building, elevation 300 feet, fire area 10/zone RB-1B;
- Standby gas filter room, elevation 272 feet, fire area 20/zone SG-1;
- A battery and battery charger rooms, elevation 272 feet, fire area 03/zones BR-1 and BR-2;
- B battery and battery charger rooms, elevation 272 feet, fire area 04/zones BR-3 and BR-4;
- East electric bay, elevation 272 feet, fire area 02/zone SW-2;
- West diesel fire pump room, elevation 255 feet, fire area 1B/zone FP-1;
- East diesel fire pump room, elevation 255 feet, fire area 1B/zone FP-3;
- South safety related pump room, elevation 255 feet, fire area 12/zone SP-1; and
- North safety related pump room, elevation 255 feet, fire area 13/zone SP-2.

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures (71111.06)

a. Inspection Scope (71111.06 - 1 sample)

The inspectors completed one external flood protection inspection sample. The inspectors reviewed FitzPatrick's Individual Plant Examination of External Events (IPEEE) and the UFSAR concerning external flooding events. The inspection included a walkdown of accessible areas of the plant perimeter to look for potential susceptibilities to external flooding and verify the assumptions included in the site's external flooding

analysis. The inspectors also reviewed relevant abnormal and emergency plan procedures.

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance (71111.07)

a. Inspection Scope

Annual Sample. (71111.07A - 1 sample) The inspectors completed one annual heat sink sample. The inspectors reviewed the testing and evaluation of test results for the crescent area and electric bay unit coolers performed during the week of June 20. Surveillance test (ST)-8Q, "Testing of the ESW System (IST)," is performed on a quarterly basis to verify safety-related unit cooler thermal performance. Performance data and calculations were reviewed to verify that heat exchanger operation was consistent with design.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11)

a. Inspection Scope

Quarterly Review. (71111.11Q - 1 sample) On May 26 the inspectors observed licensed operator simulator training to assess operator performance during a scenario involving a rod drop accident followed by high hydrogen and oxygen concentration levels in the drywell. The inspectors evaluated the performance of risk significant operator actions, including the use of emergency operating procedures (EOPs), EOP-2, "Reactor Pressure Vessel Control," EOP-4, "Primary Containment Control" and EOP-4a, "Primary Containment Gas Control." 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.

Biennial Review. (71111.11B - 1 sample) The inspectors performed an in-office review of Entergy's annual operating test results. The inspection assessed whether pass rates were consistent with the guidance of IMC 0609, Appendix I, "Operator Requalification Human Performance SDP." The inspectors verified that:

- Crew failure rate was less than 20%. (Crew failure rate was 0%)
- Individual failure rate on the dynamic simulator test was less than or equal to 20%. (Individual failure rate was 0%)

- Individual failure rate on the walk-through test was less than or equal to 20%. (Individual failure rate was 0%)

- Overall pass rate among individuals for all portions of the examination was greater than or equal to 75%. (Overall pass rate was 100%)

The inspectors performed an on-site inspection to review the maintenance of reactor operator and senior reactor operator licenses, the conduct of training, and simulator performance at FitzPatrick. The inspectors reviewed operator training attendance records, operator medical records and license proficiency and reactivation documentation. The inspectors reviewed a sample of simulator scenarios and job performance measures administered during the current exam cycle, and observed the administration of an operating test to one crew. During the examination the inspectors observed simulator performance and reviewed simulator performance tests and condition reports to verify compliance with 10 CFR 55.46. The inspectors reviewed FitzPatrick operating history since the last qualification inspection, reviewed training feedback documentation, and interviewed instructors, operations and training department management, and licensed operators to ensure the training program was meeting operator needs.

b. Findings

Introduction. A Green NCV of 10 CFR 55.49, "Integrity of Examinations and Tests," was identified when inspectors observed each operator of a crew using the same copy of an approved procedure to complete a JPM during the annual operating test. The inspectors determined that the test was potentially compromised because an operator without the requisite knowledge using this copy of the procedure could have identified the procedure steps necessary to successfully complete the JPM based on placekeeping marks made by previously tested operators.

Description. Inspectors observed the performance of a JPM in the simulator that required swapping the power source for an electrical bus in accordance with an approved procedure. In completing the JPM each operator used the same copy of the approved procedure to complete the task. In accordance with Entergy human performance procedures, each operator marked each applicable step in pencil with a circle and a slash as the step was completed. Operators also marked N/A for steps that were not applicable. At the completion of the JPM, the pencil marks were erased, but inspectors determined that the necessary procedure steps could have been identified based on previous operator marks. In one case, a check mark indicating the required procedure section to be accomplished was not erased at all. This practice could have led to a compromise of examination integrity as defined by 10 CFR 55.49.

Analysis. Entergy's use of procedures marked-up during previously administered training and exam scenarios to administer an annual operating test was a performance deficiency because it could have caused a compromise of examination integrity as defined by 10 CFR 55.49. Traditional enforcement does not apply because the issue did not have any actual safety consequences or potential for impacting the NRC's

regulatory function and it was not the result of any willful violation of NRC requirements. The violation was more than minor because it adversely affected the mitigating systems cornerstone attribute of human performance. A licensed operator without the requisite skills and knowledge could have passed the annual requalification operating test because of the deficiency, and this could have affected the ability of operators to respond to an initiating event and prevent undesirable consequences. IMC 0609, Appendix I, "Operator Requalification Human Performance SDP," addresses the performance deficiency as follows. Block eight and its associated guidance asks if the individual operating test integrity was or could have been compromised? In this case, though there was no evidence of actual compromise, there was a potential for compromise. Answering yes to block eight leads to block 11. Block 11 asks whether or not immediate corrective actions were taken for the deficiency. In this case, Entergy took immediate corrective action to ensure the deficiency would not affect further examination; therefore, in accordance with block 11, the finding was of very low (Green) safety significance. Entergy initiated condition report (CR)-2004-01939 to determine the extent of condition of the deficiency and prevent its recurrence.

Enforcement. 10 CFR 55.49 requires, in part that ". . . facility licensees shall not engage in any activity that compromises the integrity of any application, test, or examination required by this part." and ". . . the integrity of a test or examination is considered compromised if any activity regardless of intent, affected, or, but for detection, would have affected the equitable and consistent administration of the test or examination." Contrary to this requirement, Entergy's test administration practice led to a potential for compromise of the walkthrough portion of the operating test as described in NUREG-1021. Because the violation is of very low safety significance and Entergy entered the deficiency into its corrective action program, this violation is being treated as a non-cited violation, consistent with Section VI.A of the NRC Enforcement Policy. (NCV 050333/2004003-01).

1R12 Maintenance Implementation (71111.12)

a. Inspection Scope (71111.12Q - 2 samples)

The inspectors reviewed performance-based problems involving selected in-scope structures, systems, or components (SSCs) to assess the effectiveness of the maintenance program. Reviews focused on: proper maintenance rule scoping in accordance with 10 CFR 50.65; characterization of reliability issues; system and component unavailability; 10 CFR 50.65 (a)(1) and (a)(2) classifications; identifying and addressing common cause failures, trending key parameters, and the appropriateness of performance criteria for SSCs classified (a)(2) and the 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 following two maintenance rule samples were reviewed:

- RHR and RHR service water (RHRSW); and
- Process radiation monitoring.

The inspectors reviewed the following documents:

- JAF-RPT-PRM-02286, “Maintenance Rule Basis Document for Process Radiation Monitoring System;
- ENN-DC-171, “Maintenance Rule Monitoring; and
- JAF-RPT-RHR-02281, “Maintenance Rule Basis Document for RHR System.”

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation (71111.13)

a. Inspection Scope (71111.13 - 5 samples)

The inspectors reviewed risk assessments associated with five different work weeks during the inspection period. The inspectors verified that risk assessments were performed in accordance with AP-10.10, “On-line Risk Assessment;” risk of scheduled work was managed through the use of compensatory actions and schedule adherence; and applicable contingency plans were properly identified in the integrated work schedule. The following work weeks were reviewed:

- Week of April 18 that included planned maintenance on the B RHR pump and B control room ventilation;
- Week of April 26 that included planned maintenance on the A and C EDGs and breaching the control room ventilation envelope;
- Week of June 6 that included planned maintenance on the high pressure coolant injection (HPCI) room unit cooler and the offsite power Lighthouse Hill 115kV line 3 breaker 71BRK-10022;
- Week of June 13 that included HPCI quick start testing and troubleshooting of a ground on the B station battery bus; and
- Week of June 20 that included isolation of HPCI to troubleshoot a ground on the B station battery bus, and replacement of the B reactor feedwater pump control power inverter.

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Non-routine Plant Evolutions (71111.14)

a. Inspection Scope (71111.14 - 2 samples)

For the two non-routine events described below, the inspectors observed operator actions and reviewed operator logs, plant computer data, and strip charts to determine what occurred, how the operators responded, and if the response was in accordance with plant procedures.

- On May 12 the inspectors observed the site response to increasing differential pressure across the main condenser. The high differential pressure occurred while one of three circulating water bays was out of service for cleaning and was caused by the consequent higher flow rate through the condenser water boxes. The operators appropriately responded by reducing power using normal operating procedures.

- On June 22 a reactor vessel water level transient occurred when a ground developed on the B station battery bus which caused failure of B reactor feedwater pump controls. Operators appropriately responded by using the A feedwater pump to restore reactor vessel water level.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope (71111.15 - 4 samples)

The inspectors reviewed operability determinations to assess the acceptability of the evaluations, the use and control of compensatory measures if needed, and compliance with technical specifications. The inspector's 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 Technical Specifications (TS), UFSAR, and associated design basis documents (DBDs). The following four evaluations were reviewed:

- CR-2004-01109 concerning slow control rod scram times for rods 38-11 and 18-03;
- CR-2004-02128 and CR-2004-01797 concerning a degraded motor and coupling on the B EDG auxiliary oil pump;
- CR-2004-02190 concerning degraded voltage logic relay calculations for 115 kV offsite power lines; and
- CR-2004-02289 concerning a failed surveillance test for the torus-to-reactor building vacuum breaker 27VB-6.

b. Findings

No findings of significance were identified.

1R16 Operator Workarounds (71111.16)

a. Inspection Scope (71111.16 - 1 sample)

The inspectors completed one operator workaround inspection sample.

The inspectors evaluated individual and cumulative effects of identified operator workarounds on the functionality of the plants mitigating systems. The workarounds were reviewed to determine if the functional capability of the system or human reliability in responding to an initiating event was affected; the effect on the operator's ability to implement abnormal or emergency procedures; and if operator workaround problems were captured in Entergy's corrective action program. The inspectors also reviewed Entergy's assessment of the cumulative effects of the identified workarounds in accordance with ST-99H, "Operator Work Arounds Assessment." Two additional items were reviewed for their impact on radiological dose to operators:

- Local operation of degraded valves associated with condenser de-fishing per OP-4, "Circulating Water System;" and
- Local manual operation of the no. 4 turbine control valve drain valve per OP-65, "Startup and Shutdown Procedure."

b. Findings

No findings of significance were identified.

1R19 Post Maintenance Testing (71111.19)

a. Inspection Scope (71111.19 - 6 samples)

The inspectors reviewed post maintenance test procedures and associated testing activities for selected risk significant mitigating systems to access whether the effect of maintenance on plant systems was adequately addressed by control room and engineering personnel. The inspectors verified that test acceptance criteria were clear, demonstrated operational readiness and were consistent with design basis documentation; that test instrumentation had current calibrations and the range and accuracy for the application; and that tests were performed, as written, with applicable prerequisites satisfied. Upon completion, the inspectors verified that equipment was returned to the status required to perform its safety function. Six post maintenance test activities were reviewed.

- WRs JAF–03-33989 and JF-980644300 that involved replacement of the B RHR pump shaft seal and discharge check valve 10RHR-42B. The retest was performed through partial performance of ST-2AM, "RHR Loop B Quarterly Operability Test (IST)."
- WRs JAF-04-20736, JF-980561500, and JF-010003800 that involved overhaul and refurbishment of reactor building ventilation isolation valve 66AOV-100A. The retest was performed per WR JF-980561503 and partial performance of ST-39D, "Secondary Containment Leak Test."
- WRs JF-030085800 and JAF-04-19424 that involved 10-year preventive maintenance on containment air exhaust to standby gas treatment isolation valve 27MOV-120. The retest included as-left diagnostic testing and inservice test stroke time verification.

- WR JF-010338800 that involved preventive maintenance on Lighthouse Hill 115 kV line 3 breaker 71BRK-10022. The retests included stoking the breaker, and performance of power factor and power dissipation tests of the breaker bushings.
- WR JAF-04-23494 that involved repair of a cable connector on the F average power range monitor (APRM). The retest was performed per procedure ISP-20B, "APRM Upscale and Downscale Instrument Functional Test/Calibration."
- WR JAF-04-24008 that involved troubleshooting and repair of a ground in circuits associated with HPCI steam isolation valve 23MOV-16. The retests included partial performance of ST-4N, "HPCI Quick-Start, Inservice, and Transient Monitoring Test (IST)," and ST-4F, "HPCI Automatic Isolation Logic System Functional and Simulated Automatic Actuation Test."

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope (71111.22 - 7 samples)

The inspectors witnessed performance of STs 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 that test acceptance criteria were clear, demonstrated operational readiness and were consistent with design basis documentation; that test instrumentation had current calibrations and the range and accuracy for the application; and that tests were performed, as written, with applicable prerequisites satisfied. Upon completion the inspectors verified that equipment was returned to the status required to perform its safety function. Seven surveillance tests were witnessed.

- ST-9BA, "EDG A and C Full Load Test and ESW Pump Operability Test"
- IMP-7.10, "Local Power Range Monitor Maintenance, Troubleshooting, Diagnostic Screening, and Post Work Testing"
- ST-2AM, "RHR Loop B Quarterly Operability Test (IST)"
- ST-9BA, "EDG A & C Full Load Test and ESW Pump Operability Test"
- ST-9BB, "EDG B & D Full Load Test and ESW Pump Operability Test"
- STI-04-JAF-0001-01, "Main Control Room Emergency Ventilation Air System Unfiltered Inleakage Determination"
- ST-4N, "HPCI Quick-Start, Inservice, and Transient Monitoring Test (IST)"

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications (71111.23)

a. Inspection Scope (71111.23 - 1 sample)

The inspectors reviewed temporary modification (TM) 04-010 that installed temporary heaters on heater block 27EH-10 of the B containment atmosphere dilution system. The inspectors assessed the adequacy of the 10 CFR 50.59 evaluation; that the installation was consistent with the modification documentation; that drawings and procedures were updated as applicable; and the adequacy of the post-installation testing.

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation (71114.06)

a. Inspection Scope (71114.06 - 1 sample)

The inspectors observed simulator, technical support center and emergency operations facility activities associated with the site's emergency planning drill on May 26. The inspectors verified that emergency classification declarations and notification activities were properly completed.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS1 Access Control to Radiologically Significant Areas (71121.01)

a. Inspection Scope (71121.01 - 5 samples)

On May 26 the inspectors observed work activities associated with the replacement of a transverse incore probe (TIP). This included observation of the pre-job radiological briefing, a review of the radiation work permit and as low as reasonably achievable (ALARA) planning requirements, and observation of radiation protection technician access control of a locked high radiation area and associated radiological coverage of the TIP replacement work activity.

b. Findings

No findings of significance were identified.

2OS3 Radiation Monitoring Instrumentation and Protective Equipment (71121.03)

a. Inspection Scope (71121.03 - 9 Samples)

The inspectors performed the following activities to evaluate the operability and accuracy of radiation monitoring instrumentation, and the adequacy of the respiratory protection program for issuing self-contained breathing apparatus (SCBA) to emergency response personnel. Implementation of these programs was reviewed against the criteria contained in 10 CFR 20, applicable industry standards, and the Entergy's procedures.

A plant walkdown of accessible plant radiation monitors and a review of the calibration methods and the most recent calibration records were performed for the following instruments:

- Main steam line radiation monitors, 17RM-251A, B, C and D;
- Containment high range radiation monitor;
- Refueling area radiation monitors 12 and 30;
- Refueling area exhaust radiation monitors, 17RR-456A and B;
- Off-gas radiation monitors, 17RM-150A and B; and
- Control room air supply radiation monitor, 17RM-45.

For the selected in-use portable radiation survey and air sampling instruments listed below the inspectors verified operability and reviewed source response checks and the most recent calibration records.

- E-600 Geiger-Mueller detector 573
- E-600 neutron detector 211

- RSO-50E ion chamber 657, 652, and 679
- Ludlum 177 contamination monitor 390
- E-520 Geiger-Mueller detector 153
- DCA 3090 area radiation monitor 863 and 827
- Radeco high volume air sampler 1143
- SAM contamination monitor 495
- PM-7 personnel portal monitor 576
- IPM-8 personnel portal monitor 706

The inspectors evaluated the adequacy of the respiratory protection program with respect to the maintenance and issuance of SCBAs to emergency response personnel. The inspectors reviewed the SCBA training and qualification records for selected licensed operators, verified the inventory for the control room emergency-plan-specified SCBA equipment and reviewed equipment maintenance records. The inspectors also confirmed the operability of selected emergency response SCBAs and air bottles.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

a. Inspection Scope (71151 - 3 Samples)

The inspectors reviewed performance indicator (PI) data for the below listed cornerstones and used NEI 99-02, “Regulatory Assessment Performance Indicator Guidance,” to verify individual PI accuracy and completeness.

Mitigating Systems Cornerstone

- Safety system unavailability, RHR
- Safety system unavailability, HPCI

The inspectors reviewed data and plant records from June 2003 to March 2004. The records reviewed included PI data summary reports, licensee event reports (LERs), operator narrative logs, and maintenance rule records. The inspectors verified the accuracy of the number of critical hours reported, and interviewed the system engineers and operators responsible for data collection and evaluation.

Barrier Integrity Cornerstone

- Reactor coolant system 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 June 2003 to March 2004.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152)

1. Annual Sample Review (71152 - 1 Sample)

a. Inspection Scope

The inspectors selected CR-2004-00908 for detailed review. This CR was associated with a February 26 limited quantity radioactive material shipment that was received on February 27 at Vermont Yankee with two packages in excess of the 0.5 mrem/hr requirement of 49 CFR 173.421(a)(2). The condition report was reviewed and independent interviews were performed to ensure that the issues were properly identified, appropriately evaluated, and appropriate corrective actions were specified.

b. Findings and Observations

There were no findings of significance identified. The CR accurately identified that the specified shipment was received in a condition contrary to department of transportation (DOT) shipping requirements. Entergy's cause evaluation re-performed the shipment survey with the instrument used by FitzPatrick radiation protection (RP) personnel and carefully verified that the shipment did not shift in transit. The evaluation determined that the cause of the violation of DOT shipping requirements was that the RP technician did not perform an adequate survey.

The corrective actions specified by the CR did not adequately address the radiation survey performance deficiency and would not necessarily have prevented recurrence. While one of the corrective actions included counseling the individual RP technician, an independent interview of the individual following counseling indicated that he believed he had performed a complete and conscientious radiation survey of the shipment. This indicated that some shipment survey skill performance deficiency may still have existed and may have extended beyond this one technician. Based on this additional information, Entergy initiated a training action request to provide additional training to enhance RP technician skills for performing radioactive shipment surveys. This finding was not more than minor because the shipment did not exceed the requirements of

49 CFR 173.441, “DOT Radiation Level Limitations;” and therefore, the deficiency did not affect the Public Radiation Safety Cornerstone objective.

2. Routine and Semiannual PI&R Program Review

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 corrective action program. 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 77 corrective action program 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 inspectors evaluated the reports against the requirements of procedure ENN-LI-102, “Corrective Action Process,” and 10 CFR 50, Appendix B. The CRs reviewed are noted in the Attachment.

The inspectors also performed a semiannual review of the Entergy’s corrective action program to access trends that might indicate the existence of more significant safety issues. This semiannual review included a review of the Entergy’s system health reports, maintenance backlogs, engineering requests, self assessment reports, and the CR data base.

b. Findings

No findings of significance were identified.

4OA5 Other Activities

a. Inspection Scope

The inspectors performed Temporary Instruction 2515/156, “Offsite Power System Operational Readiness.” The inspectors collected and reviewed information pertaining to the offsite power system specifically relating to the areas of the maintenance rule (10 CFR 50.65), the station blackout rule (10 CFR 50.63), offsite power operability, and corrective actions. The inspectors reviewed this data against the requirements of 10 CFR 50, Appendix A, General Design Criterion 17, “Electric Power Systems,” and the TS. This information was forwarded to NRR for further review.

b. Findings

No findings of significance were identified.

4OA6 Meetings, Including Exit

The inspectors presented the inspection results to Entergy management at the conclusion of the inspection on July 12, 2004. Entergy acknowledged that no proprietary information was involved.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Entergy personnel

T. Sullivan, Vice President, Operations
K. Mulligan, General Manager, Plant Operations
B. Maguire, Director, Nuclear Safety
P. Berry, Manager, Training
J. LaPlante, Manager, Security
A. Halliday, Manager, Regulatory Compliance
D. Johnson, Manager, Operations
O. Limpias, Director, Engineering
N. Avrakatos, Emergency Preparedness Coordinator
W. Rheaume, Manager, CA&A
K. Pushee, Manager, Radiation Protection
S. Bono, Manager, System Engineering
V. Bhardwaj, Manager, Programs and Components Engineering
A. Khanifar, Manager, Design Engineering
T. Spencer, Manager, Plant Maintenance
D. Wallace, Manager, Quality Assurance
C. Boucher, Chemistry Superintendent

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

05000333/2004003-01	NCV	Violation of 10 CFR 55.49 for potential exam compromise during administration of annual operating exam. (Section 1R11)

LIST OF DOCUMENTS REVIEWED

Section 1RO1: Adverse Weather Protection

Procedures

AOP-13, “High Winds, Hurricanes, and Tornadoes”
AP-12.04, “Seasonal Weather Preparations”
SAP-19, “Severe Weather”

Design Basis Documentation

DBD-066, “Reactor Building HVAC Systems”
DBD-070, “Control Room and Relay Room Ventilation and Cooling Systems

DBD-046, “Normal Service Water, Emergency Service Water and RHR Service Water Systems”

Section 1RO6: Flood Protection Measures

IPEEE Section 5.4.2.1, “High Lake Levels”
SAP-19, “Severe Weather”
AOP-13, “High Winds, Hurricanes, and Tornadoes”

Section 1RO7: Heat Sink Performance

Procedures:

ST-8Q, “Testing of the ESW System”
TST-104, “Testing of ESW Loop A”
AP-09.02, “Zebra Mussel Control Program”

Design Basis Documentation:

DBD-066, Section 3.1.10, “Reactor Building HVAC Systems Unit Coolers”
DBD-067, Section 3.2, “Electrical Bays Ventilation and Cooling Systems”
DBD-093, Section 3.4.1, “EDG Jacket Water Heat Exchangers”

Other Documents:

UFSAR 9.7, “Service Water Systems”
ESW System Health Reports: 1Q2002, 2Q2002, 3Q2002, 4Q2002, 1Q2003
QA Surveillance Report 2337, “Heat Sink Performance,” dated April 11, 2003
JPN-90-015, “Response to NRC Generic Letter 89-13, ‘Service Water System Problems Affecting Safety-Related Equipment’” dated February 13, 1990; updated April 18, 1991 and March 16, 1993
JAF-RPT-MULTI_01267, “Raw Water Systems Program Plan (JAF-ACT-00-49081),” Revision 2
FM-46B, “Flow Diagram: ESW System 46 and 15"
Visual/Eddy Current Exams of EDG Jacket Water Heat Exchangers

Section 1R11: Licensed Operator Requalification

Procedures

TP 5.05, Licensed Operation Requalification Training Program
TP 5.06, Conduct of Simulator Training, Attachment 4, Crew Simulator Evaluation
TP 5.07, Licensed Operator Requalification Examination Development and Administration
ODSO-30, Maintenance of NRC Licenses and STA Qualifications

SDSO-99-12, Medical Certification Process for Licensed Operators, Attachment 1, Licensed Operator Physical Examination Checklist

Simulator Tests

25% Steady State Tests for 2000, 2001, 2002, and 2003
Plant Startup and Shutdown Tests for 2002 and 2003
Manual Scram Tests for 2003 and 2004
Trip of Both Recirculation Pumps Tests for 2003 and 2004
RWR Pump 1 Seal Failure Test for 2002
Reactor SRV Vacuum Breaker Stuck Open Test for 2002
Turbine Load Reject Test for 2002
Reactor SRV Stuck Open Test for 2003
125 Volt DC Bus A BCB-2A Failure Test for 2003
Annual Operating Tests given on weeks 1, 3 and 4

Miscellaneous

Fitzpatrick ROP Plant Issue Matrix
Entergy Response to NRC Findings, 2003009-01,02; 2002006-01,02; 2003010-01
USNRC Regulatory Guide 1.149, Nuclear Power Plant Simulation Facilities for Use in Operator License Examinations
ANSI/ANS-3.5-1985, Nuclear Power Plant Simulators for Use in Operator Training
LOR Student feedback for 2003 and 2004
Status list of open DRs (24)
List of DRs initiated since 1/1/02 (271)
List of DRs initiated and closed since 1/1/02 (215)
List of Simulator Exceptions (27)

Section 20S3: Radiation Monitoring Instrumentation and Protective Equipment

Procedures

AP-07.00, “Radiation Protection Program”
AP-07.01, “Radiation Work Permit Program”
ISP-95, “Post-Accident Containment High Range Radiation Monitor Functional Test/Calibration”
ISP-64-3, “Main Steam Radiation Monitor Channel Calibration”
ISP-19-5, “Off-Gas Radiation Monitor Instrument Calibration”
ISP-27-4, “Main Control Room Air Supply Radiation Monitor Instrument Channel Functional Test/Calibration”
ISP-17, “Refueling Area Exhaust Radiation Monitor Functional Test/Calibration”
SP-03.01, Main Steam Line and Steam Jet Air Ejector Radiation Monitor Calibration”
SP-03.02, “Main Control Room Ventilation Monitor Calibration”
RP-INST-05.03, “Calibrator, J. L. Shepherd Model 89”
RP-INST-02.08, “Ion Chamber Dose Rate Meter”
RP-INST-02.14, “Portable Radiation Monitor, Eberline E-600”
RP-INST-02.04, “Count Rate Meter, Ludlum Model 177”
RP-INST-02.12, “Electronic Dosimeter, Merlin Gerin Products Instruments”
RP-INST-02.05, “Geiger Mueler Survey Meter”
RP-INST-02.07, “Neutron Survey Instrument”

RP-INST-03.01, “Area Radiation Monitors”

Section 4OA2: Identification and Resolution of Problems

Condition Reports

2004-02259, 2004-02190, 2003-03342, 2004-02289, 2004-02161, 2004-02164, 2004-02137, 2004-02126, 2004-02128, 2004-01797, 2004-02242, 2004-01795, 2004-01867, 2004-01624, 2004-01960, 2003-05643, 2003-05644, 2003-05709, 2003-05885, 2004-00021, 2004-00072, 2004-00074, 2004-00075, 2004-00171, 2004-00265, 2004-00836, 2004-00840, 2004-00841, 2004-00908, 2004-01061, 2004-01155, 2004-01156, 2004-01304, 2004-01324, 2004-01429, 2004-01652, 2004-01857, 2004-01858, 2004-01859, 2004-01860, 2004-01862, 2004-01866, 2004-02179, 2004-02180, 2004-02064, 2004-02042, 2004-02064, 2004-01626, 2003-06001, 2004-02545, 2004-02585, 2004-02606, 2004-02664, 2004-02633, 2004-02190, 2004-02642, 2004-02688, 2004-02693, 2004-02319, 2003-00162, 2004-01939, 2003-02585, 2004-00145, 2004-00146, 2003-04744, 2004-00737, 2002-02360, 2002-04506, 2002-04557, 2002-04794, 2003-04744, 2004-01205, 2002-01946, 2002-05226, 2002-05754, 2003-01245, 2003-02668

LIST OF ACRONYMS

ALARA	as low as reasonably achievable
AP	administrative procedure
APRM	average power range monitor
CFR	Code of Federal Regulations
CR	condition report
DBD	design basis document
DOT	department of transportation
EDG	emergency diesel generator
EOP	emergency operating procedure
ESW	emergency service water
HPCI	high pressure coolant injection
IMC	Inspection Manual Chapter
IPE	individual plant examination
IPEEE	individual plant examination of external events
IST	in-service testing
JPM	job performance measure
kV	kilovolt
LER	licensee event report
NCV	non-cited violations
NRC	Nuclear Regulatory Commission
OP	operating procedure
PI	performance indicator
RHR	residual heat removal
RHRSW	residual heat removal service water
RP	radiation protection
SDP	significance determination process

SSC	systems, structures and components
SCBA	self contained breathing apparatus
ST	surveillance test procedure
TI	temporary instruction
TIP	transverse incore probe
TS	technical specification
TM	temporary modification
UFSAR	updated final safety evaluation report
Vac	volts, alternating current
Vdc	volts, direct current
WR	work request