

November 9, 2001

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 50-333/01-09

Dear Mr. Sullivan:

On September 30, 2001, 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 18, 2001, 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.

Since September 11, 2001, Fitzpatrick has assumed a heightened level of security based on a series of threat advisories issued by the NRC. Although the NRC is not aware of any specific threat against nuclear facilities, the heightened level of security was recommended for all nuclear power plants and is being maintained due to the uncertainty about the possibility of additional terrorist attacks. The steps recommended by the NRC include increased patrols, augmented security forces and capabilities, additional security posts, heightened coordination with local law enforcement and military authorities, and limited access of personnel and vehicles to the site.

The NRC continues to interact with the Intelligence Community and to communicate information to Entergy. In addition, the NRC has monitored maintenance and other activities which could relate to the site's security posture.

The inspectors identified four findings of very low safety significance (Green). Two of these findings involved the failure to include adequate criteria in test procedures for important plant safety systems. Another involved the failure to perform an adequate extent of condition review for a deficiency identified in your corrective action program. The fourth issue involved the failure to conduct the required tests of breathing air cylinders staged for emergency use by your staff. These findings have been entered into your corrective action program and are discussed in the summary of findings and in the body of the attached inspection report. Furthermore, these findings were determined to involve violations of NRC requirements, but because of their very low safety significance, these violations were non-cited.

Should Entergy elect to contest these NCVs, a written response within 30 days of the date of this Inspection Report, with the basis for the denial, should be sent 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.

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). Should you have any questions regarding this report, please contact me at 610-337-5211.

Sincerely,

*/RA/*

William A. Cook, Acting Chief  
Projects Branch 3  
Division of Reactor Projects

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

Enclosure: Inspection Report 50-333/01-09  
Attachment: Supplemental Information

cc w/encl: J. Yelverton, CEO, Entergy Operations  
M. Colomb, General Manager, Entergy Nuclear Operations  
J. Knubel, VP Operations Support  
R. Patch, Acting 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 Department 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  
T. Judson, Central NY Citizens Awareness Network  
S. Lousteau, Treasury Department

Mr. T. Sullivan

3

Distribution w/encl: Region I Docket Room (with concurrences)  
**(VIA E-MAIL)** R. Rasmussen, DRP - NRC Resident Inspector  
H. Miller, RA  
J. Wiggins, DRA  
G. Meyer, DRP  
R. Barkley, DRP  
T. Haverkamp, DRP  
D. Loveless, RI EDO Coordinator  
E. Adensam, NRR  
G. Vissing, PM, NRR  
R. Clark, Backup PM, NRR  
T. Frye, NRR  
C. See, NRR

DOCUMENT NAME: C:\Program Files\Adobe\Acrobat 4.0\PDF Output\Fitz0109.wpd

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

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

OFFICE	RI/DRP	RI/DRP					
NAME	Rbarkley (RSB)	WCook (RSB for)					
DATE	11/8/2001	11/9/01					

OFFICIAL RECORD COPY

U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.: 50-333

License No.: DPR-59

Report No.: 50-333/01-09

Licensee: Entergy Nuclear Northeast  
Post Office Box 110  
Lycoming, NY 13093

Facility: James A. FitzPatrick Nuclear Power Plant

Location: 268 Lake Road  
Scriba, New York 13093

Dates: August 19 - September 30, 2001

Inspectors: R. A. Rasmussen, Senior Resident Inspector  
D. A. Dempsey, Resident Inspector  
T. A. Moslak, Health Physicist  
O.S. Mazzoni, NRC contractor

Approved by: G. W. Meyer, Chief  
Projects Branch 3  
Division of Reactor Projects

## SUMMARY OF FINDINGS

IR 05000333-01-09, on 08/19 - 09/30/2001; Entergy Nuclear Northeast, James A. FitzPatrick Nuclear Power Plant, Operability Evaluations, Post Maintenance Testing, Surveillance Testing, and Radiation Monitoring Instrumentation.

The report covers a six-week inspection by resident inspectors and a specialist inspection of radiation monitoring instrumentation and respiratory protection programs. Four green findings were identified which involved Non-Cited Violations. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using IMC 0609 "Significance Determination Process" (SDP). Findings for which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violation. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at <http://www.nrc.gov/NRR/OVERSIGHT/index.html>.

### A. Inspector Identified Findings

#### **Cornerstone: Mitigating Systems**

GREEN. Entergy failed to perform an extent of condition review following the discovery of an emergency operating procedure contingency hose that was too short. Upon questioning by the inspectors, Entergy identified that the alternate boron injection hose was also too short.

This issue was considered more than minor because the ability to use the alternate boron injection path is important for anticipated transient without scram mitigation. However, this was determined to be of very low safety significance (Green) because the hose was adequate to connect to one of the two control rod drive (CRD) pumps, and at least one train of the standby liquid control system was available for ATWS mitigation for the duration of this condition (i.e., inadequate contingency hose length). This failure to perform an adequate extent of condition review was considered a non-cited violation of NRC requirements. (Section 1R15)

GREEN. The inspectors identified that the post maintenance test for the station service tap changer modification was inadequate in that it lacked clear test requirements and acceptance criteria.

This issue was considered more than minor because unclear test requirements and criteria can mask equipment performance problems and have a credible impact on plant safety. In this case, the inspector intervened and the test criteria was corrected prior to performance of the test. Therefore, this issue screens out of the phase one SDP process as having very low safety significance (Green). This issue was considered a non-cited violation of NRC requirements. (Section 1R19)

GREEN. The acceptance criteria contained in the quarterly inservice test procedure for the 'B' emergency service water pump was not updated following pump replacement.

This issue was considered to be more than minor in that lack of acceptance criteria applicable to the new pump could mask degrading pump performance. However, this was determined to be of very low safety significance (Green) because the pump continued to operate acceptably. Failure to determine new acceptance criteria and incorporate them in the test procedure was a non-cited violation of NRC requirements. (Section 1R22)

### **Cornerstone: Occupational Radiation Safety**

GREEN. A Non-Cited Violation of 10 CFR 20.1703(c)(4)(vii) for failure to conduct triennial hydrostatic tests of eleven (11) self-contained breathing apparatus (SCBA) air cylinders as required by written maintenance procedures.

The finding is greater than minor because, if left uncorrected, inadequately tested respiratory protection equipment could be used by personnel in the event of an emergency. The finding is of very low safety significance because unqualified equipment was not actually used; all of the affected air cylinders displayed the proper air pressure indicating that cylinders maintained the requisite integrity; a sufficient supply (in excess of requirements) was available for use; a small percentage of the available air cylinders were not tested; and, the cylinders were identified to be overdue a relatively short time beyond their three-year test interval. (Section 2OS3)

#### **b. Licensee Identified Findings**

The inspectors reviewed a violation of very low significance which was identified by Entergy. The corrective actions taken or planned by Entergy appeared to be reasonable. This non-cited violation is described in Sections 4OA3 and 4OA7 of this report.

## REPORT DETAILS

### **SUMMARY OF PLANT STATUS**

The reactor operated at full power for the majority of the inspection period. On August 31, a planned downpower was conducted to repair a leaking seal on the B reactor feedwater pump.

#### **1. REACTOR SAFETY**

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

#### 1R04 Equipment Alignments

##### a. Inspection Scope

The inspectors conducted the following partial equipment alignment walkdowns:

- The emergency diesel generator (EDG) systems, emergency switchgear, and the high pressure coolant injection system with the Lighthouse Hill 115kv offsite power supply declared inoperable.
- The A, B, and C EDG systems and emergency switchgear during the planned overhaul of the D EDG. This included particular focus to the B EDG fuel system during the cleaning of the adjacent D EDG fuel oil storage tank.

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. 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. These included:

- The East and West electric bays on August 30.
- The station battery and battery charger rooms on September 5.
- The outdoor areas surrounding the station reserve transformers on August 21.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification

a. Inspection Scope

On September 27, 2001, the inspector observed licensed operator simulator training to assess operator performance for scenarios involving anticipated transients without scram (ATWS): (1) with loss of condensate, and (2) with a reactor coolant leak. Specifically, the inspector observed operators performing emergency operating procedures (EOP) - 2, 3, and 4, and several associated emergency and abnormal operating procedures. 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 Effectiveness

a. Inspection Scope

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

- Proper classification of equipment functional failures and system unavailability for the control rod drive system during the previous operating cycle. The system is designated as an (a)(2) system, as performance goals have been met. The inspector reviewed the deviation event reports that were initiated for the system over the last 24 months and verified that component functional failures and system level performance were properly evaluated.
- Proper classification of equipment failures and plant and system level performance for the extraction steam, reboiler, and moisture separator reheater systems during the previous 24 months. The system was classified as (a)(2). However, system operation has been challenged by several air-operated valve (AOV) problems, resulting in a component-specific (a)(1) categorization for AOVs. Corrective action plan JTS-APL-99-007 was being implemented to correct plant-wide AOV deficiencies.



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:

- 115KV reserve station service transformer (RSST) T-2 and T-3 tap changes during the week of September 9.
- Replacement and calibration of main condenser pressure transmitter 33PT-135B during the week of September 23.
- Performance of RSST T-3 deluge system operability test during the week of September 2.

The inspectors reviewed the maintenance risk assessments and the evaluations of the 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 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

.1 Corrective Action Review

a. Inspection Scope

The inspectors reviewed the corrective actions taken for a previously identified operability issue with a contingency hose used in emergency procedures to cross-tie the fire water system to the emergency service water system.

b. Observations and Findings

Entergy failed to perform an extent of condition review following the discovery of an emergency operating procedure contingency hose that was too short. Upon questioning by the inspectors, Entergy identified that the alternate boron injection hose was also too short. This issue was determined to be Green using the SDP and was considered a non-cited violation of NRC requirements.

Entergy discovered that a contingency hose used in emergency procedures to cross-tie the fire water system to the emergency service water (ESW) system was too short. The hose was replaced in January 2001, as part of the preventative maintenance program, but the replacement hose was not actually fit into position. The 26-inch long hose was about one inch too short. This deficiency was identified during a pre-maintenance walkdown by the planning department.

This deficiency was entered into the corrective action system and assigned as a level B significance deficiency and event report (DER). However, the screening committee elected to apply an exception to the DER process and not require a response for this level B DER. The committee was satisfied that the hose had been replaced and corrective actions were being taken to improve the preventative maintenance program.

The inspector questioned the lack of an extent of condition review and Entergy reopened the DER. Based on the new evaluation, Entergy discovered a second hose that was also too short. The alternate boron injection hose, designed to connect the borated water storage tank to the control rod drive (CRD) system pumps, was about two feet too short to reach the A CRD pump.

This issue was considered more than minor because the ability to use the alternate boron injection path is important for anticipated transient without scram (ATWS) mitigation. However, this was determined to be of very low safety significance (Green) because the hose was adequate to connect to one of the two CRD pumps, and at least one train of the standby liquid control system was available for ATWS mitigation during the period that the short hose was in place.

The failure to perform an extent of condition review, following the discovery that the ESW cross tie hose was too short, was contrary to the requirements of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Actions," which requires conditions adverse to quality to be promptly identified. 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 Entergy corrective action system as DER 01-03238. **(NCV 05000333/01-09-01)**

## .2 Other Operability Evaluations

### a. Inspection Scope

The inspectors reviewed the below listed following operability determinations performed to address issues identified with safety significant systems. The inspectors reviewed associated sections of the Final Safety Analysis Report (FSAR) and technical specifications, for the discrepant condition.

- Control Rod 22-11 failed to move under both normal and elevated drive pressure.
- Reactor vessel wide range level instrument reference leg backfill system transient operation following loss of control rod drive system pumps.
- Possible residual heat removal service water system waterhammer due to potentially stuck open keep-full check valves.

### b. Findings

No findings of significance were identified.

## 1R17 Permanent Plant Modifications

### a. Inspection Scope

The inspectors reviewed modification JD -01-146, that was performed on September 14, 2001, to change the tap settings on the station service transformers. The change in tap settings was performed to compensate for potential voltage degradation under certain accident conditions. This modification involved changing the connections to the transformers windings that changed the ratio of primary to secondary voltages.

This inspection included a review of the applicable drawings and calculations that are listed in Attachment 1 of this report.

### b. Findings

No findings of significance were identified.

## 1R19 Post Maintenance Testing

### .1 Reserve Station Service Transformer Testing

#### a. Inspection Scope

The inspectors reviewed modification package JD-01-146, Reserve Station Service Transformers T2 and T3 Tap Changes, and the associated post maintenance test per work request (WR) 01-10975-12.

#### b. Observations and Findings

The inspectors identified that the post maintenance test for the station service tap changer modification was inadequate, in that, it lacked clear test requirements and acceptance criteria. This issue was determined to be Green using the SDP and was considered a non-cited violation of NRC requirements.

Modification JD -01-146 was performed on September 14, 2001, to change the tap settings on the station service transformers. The change in tap settings was performed to compensate for potential voltage degradation under certain accident conditions. This modification involved changing the connections to the transformer windings that change the ratio of primary to secondary voltages. The station service transformers are risk significant in that they are required to supply offsite power to safety systems for accident mitigation.

The post maintenance test requirements were specified in WR 01-10975-12, but this WR failed to provide clear requirements or acceptance criteria. For example, the modification package stated "verify the transformer is capable of supplying all required plant loads." However, neither the modification package or the work request defined the required loads or gave a specific load requirement. Another action was to take electrical readings per the modification and at the direction of the electrical engineering staff. Given this lack of specificity, there was no clear description of the test or the acceptance criteria.

The inspector discussed these issues with the shift manager prior to the start of testing on the first transformer. The test requirements and criteria were reviewed and revised by Entergy prior to the performance of the test.

Unclear test requirements and criteria could mask unacceptable system performance and lead to degraded components being returned to service. The failure to include appropriate test requirements and acceptance criteria in post maintenance test documents is more than minor and does have a credible impact on plant safety. In this case, the inspector intervened and the test criteria was corrected prior to performance of the test. Therefore, this issue screens out of the phase one SDP process as having very low safety significance (Green). The failure to have clear test requirements and test acceptance criteria is a violation of 10 CFR 50, Appendix B, Criterion XI, "Test Control." 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 Entergy corrective action system as DER 01-3600. **(NCV 05000333/01-09-02)**

The inspector noted that a similar problem was discussed in NRC inspection report 50-333/1999-009, and a non-cited violation (NCV 50-333/99-09-04) was issued for the high pressure coolant injection (HPCI) system being returned to service when it was in fact inoperable.

.2 Other Post Maintenance Testing

a. Inspection Scope

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

- Replace 'A' main condenser pressure transmitter 33PT-135B.
- Replace 'A' main feed pump turbine control LVDT.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

.1 Inservice Testing of 'B' Emergency Service Water Pump

a. Inspection Scope

The inspector reviewed the results of quarterly inservice test ST-8Q, "Testing of the Emergency Service Water System (IST)\*," that was performed on the 'B' system train on September 20, 2001. The review focused on pump performance in comparison to the manufacturer's pump curve, and the requirements of Part 6 (OM-6) of ASME/ANSI OMA-1988, "Inservice Testing of Pumps in Light-Water Reactor Power Plants."

b. Findings

The licensee did not determine a new reference value or set of reference values for the 'B' loop emergency service water (ESW) pump prior to declaring the pump operable after its replacement in October 2000. The acceptance criteria contained in Attachment 7 of procedure ST-8Q consisted of a pump curve that applied to the pump that had been replaced, and which had not been updated to reflect the performance of the new pump. Entergy's failure to update the surveillance test procedure to incorporate new requirements and acceptance limits was evaluated using the SDP and determined to be of very low safety significance (Green). The basis for this determination was that operability evaluations performed by Entergy following the performance of each quarterly pump test demonstrated that the new pump was performing acceptably.

Section 4.4 of OM-6 requires a new reference value or set of reference values to be determined following pump replacement. Deviations between the new and previous values are to be identified and the new values are to be verified to represent acceptable pump operation. During each quarterly inservice test performed after the pump's replacement, the licensee performed an operability evaluation that concluded that pump performance was acceptable. However, Entergy has not yet performed the special testing needed to construct a new pump performance curve for use as acceptance criteria in procedure ST-8Q. This condition, if left uncorrected, could become a more significant safety concern because lack of appropriate acceptance criteria could result in

pump degradation going unrecognized. Consequently the operability or availability of the 'B' ESW loop, which cools one train of emergency diesel generators and various safety-related equipment room coolers, could be affected. The inspector evaluated this issue using phase 1 of the SDP and characterized the issue as a design or qualification deficiency confirmed not to result in a loss of function per Generic Letter 91-18, Revision 1. This finding was determined to have very low safety significance (Green).

Criterion XI, "Test Control," of 10 CFR 50, Appendix B, requires a test program to assure that all testing required to demonstrate satisfactory performance of systems, structures, and components is identified and performed in accordance with written procedures that incorporate the requirements and acceptance limits in applicable design documents. Section 4.4 of OM-6, "Inservice Testing of Pumps in Light-Water Reactor Power Plants," requires a new set of reference values be determined following pump replacement or repair. Contrary to the above, following replacement of the 'B' ESW pump in October 2000, Entergy did not determine a new set of reference values for the pump and incorporate them as acceptance criteria in procedure ST-8Q, "Testing of the Emergency Service Water System (IST)\*." 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 Entergy corrective action system as DER 01-03644. **(NCV 05000333/01-09-03)**

## .2 Other Surveillance Tests

### a. Inspection Scope

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

- RAP 7.4.1, "Rod Scram Time Evaluation," performed on August 20.
- ST-76TD, "Transformer 71T-3 Deluge Operability Test," performed on August 21.
- ST-9BA, "EDG A & C Full Load Test and ESW Pump Operability Test," performed on September 4.

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

### b. Findings

No findings of significance were identified.

## 2 RADIATION SAFETY

Cornerstone: Occupational Radiation Safety (OS)

2OS3 Radiation Monitoring Instrumentation (71121.03)

### a. Scope

During the period September 10 -14, 2001, the inspector conducted the following activities to evaluate the operability and accuracy of radiation monitoring instrumentation and respiratory protection programs used for the protection of workers:

- The inspector reviewed the associated procedures and observed the calibration of three portable area radiation monitors (DCA 3090 Nos. 819 and 823, and AMP 100 No. 762) and a high volume air sampler.
- The inspector observed technicians performing radioactive source and functional checks on a variety of instrumentation including the whole body counter, continuous air monitors (AMS-3 and 4), high range gamma survey meters (teletector and E-520), a low level (micro-R) survey meter, and a portable ion chamber (RSO-50E).
- The inspector reviewed the calibration records for a selected electronic dosimeter (DMC-2000), the whole body counting system, contamination survey instruments (MS 2 and 3, SAC-4), and in-plant area monitors (Channels 1-12).
- The inspector reviewed the maintenance records, safety interlock tests, and current calibration source activity/dose rate determinations for the two Model 89 Shepard calibrators used for instrument calibrations.
- The inspector evaluated the adequacy of the respiratory protection program regarding the issuance and maintenance of self-contained breathing apparatus (SCBA). Training and qualification records for licensed operators, required to wear SCBAs in the event of an emergency were reviewed. SCBAs staged for use in various locations within the restricted plant areas were physically checked and the maintenance records for selected SCBA's were reviewed.
- The inspector reviewed radiological incident Deviation/Event Reports (DER) related to radiation instrumentation, SCBAs, and the monitoring of plant radiation levels to determine if problems were identified in a timely manner and appropriate corrective actions were taken to resolve the related issues. Included in this review were DER Nos. 00-04232, 01-01839, 01-02382, 01-02621, 01-02674, 01-03004, 01-03042, 01-03181, 01-03577, 01-03579, and 01-03590.

b. Findings

Green. A non-cited violation was identified involving failure to conduct triennial hydrostatic tests of eleven (11) self-contained breathing apparatus (SCBA) air cylinders as required by written procedures.

The inspector identified, by reviewing the Emergency Respiratory Device Monthly inspection records for SCBAs, that the licensee had at least eight (8) air cylinders in service whose triennial hydrostatic testing period had expired. Six cylinders (Nos. 256928, 256909, 257056, 22809, 256968, and 256975) were staged for use in the control room and two cylinders (No. 257072 and 256880) were staged at the radiological controlled area (RCA) access point. Hydrostatic testing was required on the identified cylinders by July 2001, with the exception of cylinder No. 22809, which was due by May 2001. The inspector identified that failure to perform the hydrostatic test was not in conformance with the licensee's self-contained breathing apparatus inspection procedure RP-RESP-02.03, Revision 2, which requires SCBA cylinders to be hydrostatically tested every three years for purposes of cylinder re-qualification. Subsequently, in determining the extent of the condition, the licensee identified three (3) additional overdue air cylinders for hydrostatic testing. The licensee removed all affected cylinders from service and replaced them with qualified cylinders, and reviewed supplies to ensure all overdue units were removed.

Failure to properly maintain respiratory protection equipment is contrary to 10 CFR 20.1703 (c)(4)(vii), which requires that the licensee implement and maintain a respiratory protection program that includes written procedures regarding the testing of respiratory protection equipment. The issue is more than minor, in that, if left uncorrected, emergency response equipment may not function properly when required for use in an actual emergency.

Since SCBAs are emergency equipment used to support emergency response, this finding was evaluated under the Emergency Preparedness Significance Determination Process. The finding was determined to be of very low safety significance (GREEN), because, although it involved a failure to maintain response equipment in accordance with regulatory requirements, it did not result in the licensee's failure to meet a planning standard since: unqualified equipment was not actually used; all of the affected air cylinders displayed the proper air pressure indicating that cylinders maintained the requisite integrity; a sufficient supply, in excess of requirements; was available for use; only a small percentage of the available air cylinders were not tested; and the cylinders were identified to be overdue a short time relative to their three year test cycle. The licensee placed this issue into its corrective action system (DER 01-03577).

The inspector identified that because this violation of 10 CFR 20.1703 (C)(4)(vii) is of very low safety significance and because it is in the licensee's corrective action process (DER 01-03577), this violation is being treated as a Non-Cited violation consistent with Section VI.A of the NRC Enforcement Policy issued May 1, 2000 (65FR25368). (NCV **05000333/01-09-04**)

**4. OTHER ACTIVITIES**



#### 4OA2 Identification and Resolution of Problems

Inspection findings presented in Section 1R15, 1R19, and 1R22 of this report also had implications regarding Entergy's implementation of the corrective action program. As described in section 1R15, the inadequate implementation of the corrective action program resulted in an inadequate extent of condition review. Sections 1R19 and 1R22 involve inadequate test documentation, which is a recurring issue that has been the subject of previous NRC violations.

Additional items associated with the corrective action program were reviewed without findings.

#### 4OA3 Event Follow-Up

- .1 (Closed) LER 050333/1999-013-02: Steam Leakage Detection System Outside of Design Basis. This LER revision added more plant areas that were affected by this original design deficiency, and revised the corrective actions for this event. No new issues were identified during onsite review and this LER is closed.
- .2 (Closed) LER 050333/2000-016-01: High Pressure Coolant Injection System Declared Inoperable Due to Water in Turbine Casing. This LER revision documented the results of a root cause evaluation and the corresponding additional correction actions. No new issues were identified and this LER is closed.
- .3 (Closed) LER 050333/2001-004: Failure to Meet Auxiliary Electrical Systems Technical Specifications. The event discussed in this LER was reviewed and documented as a licensee identified non-cited violation in Section 4OA5 of inspection report 50-333/01-03. No new issues were identified and this LER is closed.
- .4 (Closed) LER 0500333/2001-001: Conflicting Design Requirements for Reactor Building Hatchway Configuration Resulted in the Plant Being in an Unanalyzed Condition. This issue was evaluated for risk and was determined to be a minor issue.
- .5 (Closed) LER 0500333/2001-003: Failure to Satisfy Technical Specification Table 4.2-8, Primary Containment Hydrogen/Oxygen Concentration Analyzer Calibration Requirements. This issue was determined to be minor during an onsite review because subsequent calibrations proved the analyzers remained operable.
- .6 (Closed) LER 050333/2001-002: Failure to Satisfy Technical Specification (TS) Requirements Due to Inoperable Support Instrumentation. This LER is discussed in Section 4OA7 of this report.

#### 4OA5 Other

(Closed) URI 0500333/2000-003-06: This URI was written pending the clarification of reporting requirements for the reactor core isolation (RCIC) system. The NRC Issued Regulatory Issue Summary (RIS) 2001-14, Position on Reporting Requirements for Reactor Core Isolation Cooling System Failure, on July 19, 2001. Based on the guidance provided, Entergy will not be required to report failures of RCIC in accordance with 10 CFR 50, paragraphs 50.72(b)(3)(v) and 50.73(a)(2)(v), because the RCIC system was not credited for the mitigation of a rod ejection accident in the final safety analysis. No violations of NRC requirements were identified.

#### 4OA6 Meetings

##### Exit Meeting Summary

On October 18, 2001, the inspectors presented the inspection results to Ted 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

The following finding of very low significance was identified by the licensee and is a violation of NRC requirements which meets the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600, for being dispositioned as a Non-Cited Violation (NCV).

##### .1 **NCV 05000333/01-09-05**

LER 05000333/01-002, "Failure to Meet Auxiliary Electrical Systems Technical Specifications," reported that Technical Specification Tables 3.1-1 and 3.2-1 require the APRM flow referenced neutron flux high scram trip channels and the rod block monitor to be placed in the tripped condition when less than the minimum number of instrument or trip channels are operable. Contrary to this requirement, between February 4 and February 26, 2001, APRM system channels B, D, and F, and rod block monitor channel B were not placed in the tripped condition when the D flow unit was declared inoperable. This issue was evaluated using the SDP and determined to be of very low safety significance (Green). This event was addressed in the JAF corrective action program in DER 01-00859. This issue is being treated as a licensee identified Non-Cited Violation.

**ATTACHMENT 1****SUPPLEMENTAL INFORMATION**a. Key Points of Contact

D. Aikens	Health Physics Technician
T. Andersen	Electrical Engineer
R. Baker	Electrical Engineer
R. Brown	Radiation Protection Supervisor
G. Brownell	Licensing Engineer
M. Bursztein	Electrical Engineer-Contractor
J. Chapel	Health Physics Technician
D. Cristafulli	Radiation Protection Supervisor
A. Degracia	EDG System Engineer
T. Edwards	RHR System Engineer
J. Flaherty	Quality Assurance Manager
B. Gorman	Chemistry Manager
E. Gould	Radiation Protection Instrument Technician
T. Herrmann	Response Team Lead
A. Holliday	Licensing Manager
A. Khanifar	Manager of Engineering
S. Kim	Electrical Engineer
A. Lilienthal	I/C Engineer
W. Maguire	General Maintenance Manager
D. McClelland	Radiation Protection Technician
R. Murray	Radiation Protection, Technician
B. O'Grady	Plant Manager
K. Pushee	Radiation Protection Manager
J. Ratigan	Principal Health Physicist
P. Reynolds	Radiation Protection, Chief Instrument Technician
D. Ruddy	Engineering Manager
T. Savory	Electrical Engineering Supervisor
T. Sullivan	Site Executive Officer
K. Szulaga	Emergency Preparedness Supervisor
G. Thomas	Director Design Engineering
V. Walz	Operator
A. Zarembo	Director Safety Assurance

b. List of Items Opened, Closed and DiscussedOpened and Closed

NCV 05000333/01-09-01:	Failure to perform extent of condition review for deficient cross-tie hoses (Section 1R15)
NCV 05000333/01-09-02:	Inadequate post-maintenance tests (Section 1R19)
NCV 05000333/01-09-03:	Failure to determine reference values following pump replacement (Section 1R22)

NCV 05000333/01-09-04 : Failure to hydrostatically test self contained breathing apparatus air cylinders (Section 2OS3)

NCV 05000333/01-09-05: APRM/RBM technical specifications not followed (Sections 4OA3, 4OA7)

Closed

LER 05000333/99-013-02: Steam Leakage Detection System Outside of Design Basis

LER 05000333/00-016-01: High Pressure Coolant Injection System Declared Inoperable Due to Water in Turbine Casing

LER 05000333/01-001: Conflicting Design Requirements for Reactor Building Hatchway Configuration Resulted in the Plant Being in an Unanalyzed Condition

LER 05000333/01-002: Failure to Satisfy Technical Specification Requirements Due to Inoperable Support Instrumentation

LER 05000333/01-003: Failure to Satisfy Technical Specifications Table 4.2-8, Primary Containment Hydrogen/Oxygen Concentration Analyzer Calibration Requirements

LER 05000333/01-004: Failure to Meet Auxiliary Electrical Systems Technical Specifications

URI 0500333/00-003-06: Reporting Requirements for Reactor Core Isolation Cooling System

c. List of Acronyms

AOV	Air-Operated Valve
APRM	Average Power Range Monitor
ATWS	Anticipated Transient Without Scram
CFR	Code of Federal Regulations
CRD	Control Rod Drive
DER	Deviation/Event Report
EDG	Emergency Diesel Generator
EOP	Emergency Operating Procedure
ESW	Emergency Service Water
FSAR	Final Safety Analysis Report
HPCI	High Pressure Coolant Injection
IST	Inservice Test
LER	Licensee Event Report
LVDT	Linear Variable Differential Transformer
NCV	Non-Cited Violation
RBM	Rod Block Monitor
RCA	Radiological Controlled Area
RCIC	Reactor Core Isolation Cooling
RIS	Regulatory Issue Summary
RSST	Reserve Station Service Transformer
SCBA	Self-Contained Breathing Apparatus
SDP	Significance Determination Process
TS	Technical Specification
URI	Unresolved Item
WR	Work Request

d. List of Documents Reviewed

RP-RESP-02.03	Self Contained Breathing Apparatus, Scott Pressure Pak 4.5
RP-RESP-04.01	Constant Air Monitor, AMS-3
RP-RESP-04.10	Constant Air Monitor, Eberline Model AMS-4
RP-RESP-04.14	Iodine Monitor, IM-1A
RP-INST-02.08	Ion Chamber Dose Rate Meters
RP-INST-05.03	Calibrator, J. L. Shepard, Model 89
RPSP-04	Surveillance and Routine Test Scheduling
RTID-93-002	Calibration Frequency for Radiation Protection Survey Instruments
RP-DOS-03.03	Whole Body Counter
RP-INST-03.01	Area Radiation Monitors
RPT-PRM-02286	Maintenance Rule Basis Document for Process Radiation Monitoring System
RPT-ARM-02287	Maintenance Rule Basis Document for Area Radiation Monitoring System
SR No. 2179	Quality Assurance Standard Surveillance Report - Radiation Monitoring Instruments

Documents reviewed for modification JD-01-146

- 14629-E9016-2, Rev. 0, Addendum No. A, "Second Level Under Voltage (Degraded Grid) Undervoltage Relay Set Point Determination for Emergency Busses"
- JAF-CALC-ELEC-04343, "Calculations for the JAF plant going from full load to a trip with estimated LOCA and with operator action"
- 92-045, Determination of change in fault current level for the plant LOCA with Off Site Power loading scenario with Tap Change from 116kV to 113kV
- 92-045, Rev.1, Addendum No. 1C, JAF Short Circuit Calculation
- 92-062, Rev. 1, Addendum No. 1A, JAF Voltage Profile Fed from RSSTs Calculation
- 91-028, Rev. 2, JAF Load Flow and Voltage Drop for LOCA with Offsite Power, Rev. A
- 14520-E-9016-1 Rev. 0, Addendum No. 0A, 4.16kV Bus Voltages During a Live Transfer Of Busses from RSST to NSSt with RSST Tap at 116kV
- 9017-4, Rev. 0, Addendum 0A, "Momentary and Interrupting Short Circuit Duties at Normal and Emergency 4.16kV Busses
- 9017-5, Rev. 0, Addendum 0A, "Fault current calculation for 600V Emergency Load Centers and 600V Emergency Motor Control Centers"
- 91-013, Rev. 2, Attachment 1, Dwg. 7810602, Load Management Study, Full Load
- E77- Voltage Profile - Emergency Buses Fed from Reserve Station Service Transformers
- 4160V Electrical Distribution System Coordination, JAF-ECAF-H05&6-10P-1AC&BD
- 125Vdc Breaker Control cable sizing and electrical protection, including upstream coordination AC Elementary Diagram Emergency Diesel Generator EDGA
- ESK-8HA, AC Elementary Diagram Emergency Diesel Generator EDGB
- ESK-5BA, D.C. Elementary Diagram- 4160V ckt 4kV Bus Tie Bus 10500to Bus 10300
- ESK-5BB, D.C. Elementary Diagram- 4160V Emergency Generator EDGA Output ACB operation
- ESK-5BX, D.C. Elementary Diagram- 4160V ckt 4kV Bus Tie Bus 10304 to Bus 10500
- ESK-5BV, D.C. Elementary Diagram- 4160V ckt Residual Heat Removal Pump 10-P-3B operation
- ESK-5BS, D.C. Elementary Diagram- 4160V ckt Emergency Bus 10500 undervoltage operation