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**Compliance Audit Report  
Entergy Nuclear James A Fitzpatrick , LLC**

**NCR07071**

**September 10, 2007**

**Public Version**

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## Executive Summary

The offsite compliance audit of Entergy Nuclear Fitzpatrick, LLC (JAF) was completed on September 10, 2007. Entergy Nuclear Operations is the parent company of Entergy Nuclear Fitzpatrick LLC, one of five nuclear generator facilities located in the NPCC footprint. Entergy Nuclear Fitzpatrick, LLC is a single unit nuclear power plant. For simplicity, Entergy Nuclear Fitzpatrick, LLC will be referred to as JAF.

The auditor evaluated JAF compliance with 16 reliability standards identified in the NERC 2007 Implementation Plan for the period of the last 12 months, or for the monitoring timeframe specified in the reliability standard. The auditor used data provided by the JAF team to determine compliance with standards. It was necessary to visit the site to review some data that was too sensitive to release off-site. Further comment on this issue is contained in the Audit Results Findings

Of the 16 reliability standards audited, eight were judged to be not applicable, six were found to be compliant and two were found to be non-compliant in some way. These results are expanded on in the Audit Results Findings.

In general, the documentation provided was focused on plant operations. As an enhancement, we recommend that a program be implemented to assure that NERC reliability standards are directly referenced and incorporated into procedures and protocols during procedure reviews and re-documentation.

## Audit Process

The compliance audit process steps are detailed in the NERC Compliance Monitoring and Enforcement Program (CMEP). The NERC CMEP conforms to the United States Government Accountability Office Government Auditing Standards and other generally accepted audit practices.

## Objectives

All registered entities are subject to audit for compliance with all reliability standards applicable to the functions for which the registered entity is registered. The audit objectives are:

- Independently review JAF compliance with the requirements of the reliability standards that are applicable to JAF based on the JAF registered functions.
- Validate compliance with applicable reliability standards from the NERC 2007 Implementation Plan list of actively monitored standards.

## Scope

The off-site compliance audit was performed by a single auditor. Confidentiality agreements executed by the independent contractors and code of conduct documentation for the NERC representative and regional entity staff were provided to the audited entity in advance of the audit. JAF was given an opportunity to object to an audit team member on the basis of a possible conflict of interest or the existence of other circumstances that could interfere with the audit team member's impartial performance of duties. JAF accepted the audit team member participants with no objections.

The auditor used data provided by JAF as evidence of compliance. Compliance audits of JAF are scheduled on a periodic basis of three-year intervals. The reliability standards reviewed in the JAF audit included all of the standards in the NERC 2007 Implementation Plan. For the 2007 program, reliability standards are monitored based on the retention periods and monitoring timeframes specified in each reliability standard. The list of reliability standards, along with their corresponding monitoring timeframes, is listed in Appendix 1.

## ***Methodology***

The auditor received the data submittal, reviewed its contents and when necessary, made further follow up inquires to clarify or expand upon the information provided. To complete the audit of CIP-001-1, it was necessary for the auditor to visit the site to review some documents that were too sensitive to release outside the plant.

## ***Audit Considerations***

No audit process or procedure can define every possible aspect, situation or scenario encountered by auditors when conducting a compliance audit. Auditors are expected to use their best professional judgments. The following paragraphs describe considerations when conducting bulk electric system reliability compliance audits.

Compliance audits of the bulk electric system reliability are based on newly defined mandatory reliability standards. Implementation of the reliability standards involves some risk for compliance audits due to the inherent learning curve of registered entities. This risk is mitigated by educating registered entities via regional compliance seminars, providing reliability standard information on the regional and NERC websites, encouraging industry involvement in the standards development process and by training compliance auditors.

The bulk electric system contains many variables, which require skilled personnel to plan and operate in a reliable manner. Many requirements in the NERC reliability standards specify or are dependent on reliability studies depicting both the planning and operational time horizons. The audit team must make professional judgments in its assessment of compliance based on 1) interviews with the registered entity's subject matter experts, 2) documented reports and policies, 3) tools/programs used to perform the studies, 4) results of the studies.

## ***Company Profile***

Entergy Nuclear Operations is the parent company of Entergy Nuclear Fitzpatrick LLC, one of five nuclear generator facilities located in the NPCC footprint. Entergy Nuclear Fitzpatrick, LLC is a single unit nuclear power plant. For simplicity Entergy Nuclear Fitzpatrick, LLC will be referred to as JAF.

### **Audit Specifics**

The compliance audit was conducted on September 10, 2007 using, files provided, telephone and e-mail queries, as well as an on-site visit to the JAF facility.

## Audit Team

<b>Audit Team Role</b>	<b>Name</b>	<b>Title</b>	<b>Company</b>
Lead	Garth Arnott	Contracted Consultant	NPCC-Compliance Audit Program
Manager	Sal Buffamante	Program Manager	NPCC-Compliance Audit Program

## JAF Audit Participants

<b>Name</b>	<b>Title</b>	<b>JAF Organization</b>
Gurunath Bijoor	Senior Lead Engineer	WPO-Engineering Programs
James Stead	Technical Specialist IV	JAF-Engineering Programs
Norman Hoy	Project Manager - Operations Support	JAF-System Engineering
Todd Santy	Security Shift Supervisor	JAF-Security
David Poulin	Assistant Operations Manager	JAF-Operations

## Audit Results

The auditor reviewed the documentation provided for evidence of compliance with each applicable reliability standard. When necessary, the auditor team would ask JAF to provide additional detail or clarification. Further evidence was gathered through e-mail responses and an on-site visit.

The auditor evaluated JAF compliance with 16 reliability standards identified in the NERC 2007 Implementation Plan for the period of the last 12 months or for the monitoring timeframe specified in the reliability standard. The auditor used data provided by the JAF team to determine compliance with standards. It was necessary to visit the site to review some data that was too sensitive to release off-site. The on-site visit raised a potential conflict between the NERC CIP-001 standards and existing NRC standards that govern access to “Safeguard Information” a title that NRC places on documents judged to sensitive to view without high security clearance levels that a non-site person would have difficulty in obtaining.

Of the 16 reliability standards audited, eight were judged to be not applicable, six were found to be compliant and two were non-compliant due to previous self-reports. The two standards that were self-reported were FAC-008-1 and FAC-009-1. JAF was compliant with PRC-004-1; however a recommendation for documentation was made relevant to this standard.

FAC-008-1 was self-reported as non-compliant due to the lack of a rating methodology that has existed since JAF assumed ownership of the plant. JAF expects to receive the methodology used by the previous owners by November 30, 2007, which is likely to bring them into compliance. This item had been identified and self-reported prior to the audit, with a mitigation plan underway to achieve compliance.

FAC-009-1 was non compliant in association with FAC-008-1. Once JAF receives the facilities rating methodology they will develop ratings and communicate them. Compliance is expected to be achieved by December 30, 2007. This item had been identified and self-reported prior to the audit, with a mitigation plan underway to achieve compliance.

PRC-004-1 is compliant primarily due to documentation existing regarding NYISO quarterly NPCC A-4 criteria compliance reports. However; we recommend the plant develop a formal process to notify the RRO of relay misoperations and corrective action plan. The process should be in place by October 31, 2007. There were no misoperations and the documentation deficiency was self-reported. If a misoperation had occurred, it seems very likely that the RRO would have been aware, due to the high visibility of nuclear plants.

## Findings

The following table details the summarized auditor notes relating to evidence reviewed for compliance with the reliability standards.

Reliability Standard	Auditor Notes	Finding
CIP-001-1	JAF provided procedures on how sabotage events will be identified and reported to local and federal officials, neighboring entities and to regulatory bodies. Documentation provided revealed operations employees are aware and have been trained on the procedure.	Compliant
EOP-009-0	Not applicable to JAF	N/A
FAC-003-1	Not applicable to JAF	N/A
FAC-008-1	JAF has put a facilities rating methodology in place on November 30, 2007.	Self reported Non-compliance has been mitigated
FAC-009-1	JAF has put a facilities rating methodology in place on November 30, 2007.	Self reported Non-compliance has been mitigated
IRO-001-1	Since JAF is not a reliability coordinator, only R8 in this standard applies. JAF provided evidence to show compliance with this standard.	Compliant
IRO-004-1	Since JAF is not a reliability coordinator only R4 is applicable. JAF showed evidence it is compliant with this standard	Compliant
PRC-004-1	JAF is compliant with R1, R2 and R3. We recommend the plant develop a formal process for R3 to notify the RRO of relay misoperations and corrective action plan. Expect the process to be in place by October 31, 2007	Compliant (recommendation)
PRC-005-1	JAF provided documentation to support compliance with the standard	Compliant
PRC-008-0	Not applicable to JAF	NA

<b>Reliability Standard</b>	<b>Auditor Notes</b>	<b>Finding</b>
PRC-010-0	JAF does not have UVLS on its system.	NA
PRC-011-0	Not applicable to JAF	NA
PRC-016-0	Not applicable to JAF	NA
PRC-017-0	Not applicable to JAF	NA
PRC-021-1	Not applicable to JAF	NA
TOP-003-0	JAF is compliant with R1, R2 and R3. R4 is N/A	Compliant

### ***Conclusions***

Of the 16 reliability standards audited, eight were judged to be not applicable, six were found to be compliant and two were previously self-reported as non-compliant in some way. These results are expanded on in the Audit Results Findings.

## Appendix I – Applicable Reliability Standards

Std #	Requirements	Standard	Who	Purpose	Monitoring Timeframe	Applicable to JAF?
CIP-001-1	All	<b>Sabotage Reporting</b>	RC, BA, TOP, GOP, LSE	Disturbances or unusual occurrences, suspected or determined to be caused by sabotage, shall be reported to the appropriate systems, governmental agencies, and regulatory bodies.	By request and any events in the last year.	Yes
CIP-002-1 through CIP-009-1	All	<b>Critical Infrastructure Protection Standards</b>	BA, GO, GOP, IA, LSE, NERC, RC, RRO, TO, TOP, TSP	Cyber Security Standards- Follow revised Implementation Plan for Cyber Security Standards CIP-002-1 through CIP-009-1	By request.	No (Nuclear plants are exempt)
COM-001-1	R2 and R5	<b>Telecommunications</b>	TO, BA, RC, NERCNet User Organizations.	Each Reliability Coordinator, Transmission Operator and Balancing Authority needs adequate and reliable telecommunications facilities internally and with others for the exchange of Interconnection and operating information necessary to maintain reliability.	By request.	Yes
EOP-009-0	All	<b>Documentation of Blackstart Generating Unit Test Results</b>	GO, GOP	To ensure that the quantity and location of system blackstart generators are sufficient and that they can perform their expected functions.	By request. Note entity must meet testing frequency specified in EOP-007-0.	No

<b>Std #</b>	<b>Requirements</b>	<b>Standard</b>	<b>Who</b>	<b>Purpose</b>	<b>Monitoring Timeframe</b>	<b>Applicable to JAF?</b>
FAC-003-1	All	<b>Vegetation Management</b>	RRO, TO	To improve the reliability of the electric transmission systems by preventing outages from vegetation located on transmission rights-of-way (ROW) and minimizing outages from vegetation located adjacent to ROW, maintaining clearances between transmission lines.	By request – program documentation and last 4 quarterly outage reports.	No
FAC-008-1	All	<b>Facility Ratings Methodology</b>	GO, TO	To ensure that Facility Ratings used in the reliable planning and operation of the Bulk Electric System (BES) are determined based on an established methodology.	By request the current methodology and any superseded portions of the methodology within the past 12 months.	Yes
FAC-009-1	All	<b>Establish and Communicate Facility Ratings</b>	GO, TO	To ensure that Facility Ratings used in the reliable planning and operation of the Bulk Electric System (BES) are determined based on an established methodology or methodologies.	By request.	Yes

Std #	Requirements	Standard	Who	Purpose	Monitoring Timeframe	Applicable to JAF?
IRO-001-1	All	<b>Reliability Coordination – Responsibilities and Authorities</b>	BA, GOP, LSE, PSE, RC, RRO, TOP, TSP	Reliability Coordinators must have the authority, plans, and agreements in place to immediately direct reliability entities within their Reliability Coordinator Areas to re-dispatch generation, reconfigure transmission, or reduce load to mitigate critical conditions to return the system to a reliable state. If a Reliability Coordinator delegates tasks to others, the Reliability Coordinator retains its responsibilities for complying with NERC and regional standards. Standards of conduct are necessary to ensure the Reliability Coordinator does not act in a manner that favors one market participant over another.	By request.	Yes
IRO-004-1	All	<b>Reliability Coordination — Operations Planning</b>	BA, GO, GOP, LSE, RC, TO, TOP, TSP	Each Reliability Coordinator must conduct next-day reliability analyses for its Reliability Coordinator Area to ensure the Bulk Electric System can be operated reliably in anticipated normal and Contingency conditions.	By request.	Yes
PER-004-1	All	<b>Reliability Coordination — Staffing</b>	RC	Reliability Coordinators must have sufficient, competent staff to perform the Reliability Coordinator functions.	By request - Each Reliability Coordinator shall keep evidence of compliance for the previous two calendar years plus the current year.	No
PRC-004-1	All	<b>Analysis and Mitigation of Transmission and Generation Protection System Misoperations</b>	DP*, GO, TO	Provide trip operation / misoperation information per regional process.	By request – last 12 months of protection system Misoperation analysis.	Yes

<b>Std #</b>	<b>Requirements</b>	<b>Standard</b>	<b>Who</b>	<b>Purpose</b>	<b>Monitoring Timeframe</b>	<b>Applicable to JAF?</b>
PRC-005-1	All	<b>Transmission and Generation Protection System Maintenance and Testing</b>	DP*, GO, TO	Document/implement transmission protection system maintenance/testing/monitoring PROGRAM	By request - maintenance and testing program and testing records to show that testing intervals are on schedule.	Yes
PRC-008-0	All	<b>Implementation and Documentation of Underfrequency Load Shedding Equipment Maintenance Program</b>	DP, TO	Document/implement UFLS maintenance/testing PROGRAM	By request - maintenance and testing program and testing records to show that testing intervals are on schedule.	No
PRC-010-0	All	<b>Technical Assessment of the Design and Effectiveness of Undervoltage Load Shedding Program.</b>	DP, LSE, TO, TOP	ASSESS design and effectiveness of UVLS programs	By request – current assessment.	No
PRC-011-0	All	<b>UVLS System Maintenance and Testing</b>	DP, TO	Document/implement UVLS maintenance/testing PROGRAM	By request - maintenance and testing program and testing records to show that testing intervals are on schedule.	No
PRC-016-0	All	<b>Special Protection System Misoperations</b>	DP, GO, TO	DOCUMENT/analyze misoperations	By request – last 12 months of special protection system Misoperation analysis.	No
PRC-017-0	All	<b>Special Protection System Maintenance and Testing</b>	DP, GO, TO	Document/implement SPS maintenance/testing PROGRAM	By request - maintenance and testing program and testing records to show that testing intervals are on schedule.	No
PRC-021-1	All	<b>Under-Voltage Load Shedding Program Data</b>	DP, TO	DOCUMENTATION of undervoltage load shedding program	By request – latest UVLS data.	No
TOP-003-0	All	<b>Planned Outage Coordination</b>	BA, GOP, RC, TOP	Scheduled generator and transmission outages that may affect the reliability of interconnected operations must be planned and coordinated among Balancing Authorities, Transmission Operators, and Reliability Coordinators.	By request.	Yes

## **Appendix 2: Confidential Security Sensitive Information**

[This section contains confidential security sensitive information which is not included with the public version, but retained by NERC and the regional organization and is sent privately to the audited entity.]