



Compliance Audit Report Public Version

Covanta Essex
NERC ID# NCR00744

**Contains Confidential Information (including
Privileged and Critical Energy Infrastructure
Information) – Has Been Removed**

Date of Audit: April 7-April 23, 2010

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Executive Summary

A compliance audit of Covanta Essex (CVE), NERC ID # NCR00744 was conducted from April 7-April 23, 2010. At the time of the audit, CVE was registered for the Generator Operator (GOP), Generator Owner (GO), functions.

The audit team evaluated CVE for compliance with forty-four (44) requirements in the 2010 NERC Compliance Monitoring and Enforcement Program (CMEP). The audit team reviewed the NERC Reliability Standards for the period of June 18, 2007 to April 23, 2010. CVE submitted information and documentation for the audit team's evaluation of compliance with requirements. The audit team reviewed and evaluated all information provided by CVE to assess compliance with standards applicable to CVE at this time.

Based on the information and documentation provided by CVE, the audit team found CVE to be compliant with thirty-seven (37) applicable requirements. The audit team determined that seven (7) requirements were not applicable to CVE. The Audit Team did not identify any violations as a result of this review.

These audit results are further explained in the Audit Results Findings section of this report which includes detailed information of the audit team's findings of applicability and compliance for the NERC Reliability Standards within the scope of the compliance audit. Any Possible Violations will be processed through the NERC and ReliabilityFirst CMEP.

There were no ongoing or recently completed mitigation plans and therefore none were reviewed by the audit team.

Audit Process

The compliance audit process steps are detailed in the ReliabilityFirst CMEP. The ReliabilityFirst CMEP generally conforms to the United States Government Accountability Office Government Auditing Standards and other generally accepted audit practices.

Objectives

All Registered Entities are subject to an audit for compliance with all reliability standards applicable to the functions for which the Registered Entity is registered.* The audit objectives are to:

- Review compliance with the requirements of reliability standards that are applicable to CVE, based on the functions that CVE is registered to perform;

* North American Electric Reliability Corporation CMEP, paragraph 3.1, Compliance Audits

- Validate compliance with applicable reliability standards from the NERC 2010 Implementation Plan list of actively monitored standards, and additional NERC Reliability Standards selected by ReliabilityFirst;
- Validate compliance with applicable regional standards from the ReliabilityFirst 2010 Implementation Plan list of actively monitored standards;
- Validate evidence of self-reported violations and previous self-certifications;
- Observe and document CVE's compliance program and culture;
- Review the status of mitigation plans.

Scope

The scope of the compliance audit included the NERC Reliability Standards from the ReliabilityFirst 2010 Implementation Plan. In addition, this audit included any self-reports, self-certifications, outstanding mitigation plans or remedial action directives which have been completed or pending in the year of the compliance audit.

At the time of the audit, CVE was registered for the functions of Generator Operator (GOP), Generator Owner (GO), the audit team evaluated CVE for compliance during the period of June 18, 2007 -April 23, 2010.

Confidentiality and Conflict of Interest

Confidentiality and conflict of interest of the audit team are governed under the ReliabilityFirst Delegation Agreement with NERC, and Section 1500 of the NERC Rules of Procedure. CVE was informed of ReliabilityFirst's obligations and responsibilities under the agreement and procedures. The work history for each audit team member was provided to CVE. CVE was given an opportunity to object to an audit team member's participation on the basis of a possible conflict of interest or the existence of other circumstances that could interfere with an audit team member's impartial performance of duties. CVE had not submitted any objections by the stated fifteen day objection due date and accepted the audit team member participants without objection. There have been no denials of or access limitations placed upon this audit team by CVE.

Methodology

The audit team reviewed the information, data, and evidence submitted by CVE and assessed compliance with requirements of the applicable reliability standards. Submittal of information and data was due forty (40) days before the scheduled date of the entity review. Additional information relevant to the audit could be submitted until the conclusion of the exit briefing. After that date, only data or information which was relevant to the content of the report or its finding can be submitted upon agreement by the audit team lead.

The audit team requested and received additional information and sought clarification from subject matter experts during the audit.

The spot check team evaluated all evidence of compliance for sufficiency and appropriateness, according to the Generally Accepted Government Auditing Standards.

The audit team reviewed documentation provided by CVE. Data, information and evidence submitted in the form of policies, procedures, e-mails, logs, studies, data sheets, etc. which were validated, substantiated and cross-checked for accuracy as appropriate. Requirements which required a sampling to be conducted were developed based upon the significance of the sampling to the reliability of the Bulk Electric System (BES).

Findings were based on the audit team's knowledge of the BES, the NERC Reliability Standards and their professional judgment. All findings were developed based upon the consensus of the audit team.

Company Profile

Covanta Energy Corporation principal activities are to develop, own, and operate energy generating facilities, water and wastewater facilities. It develops, owns and operates independent power production projects utilizing a variety of fuels. Covanta operates through two segments: Domestic and International. Domestic segment designs, constructs, and operates key infrastructure for municipalities in waste-to-energy and independent power production. International segment operates independent power production facilities in Asia, South America and Europe. Covanta Energy has a fairly traditional organizational structure with a corporate office located in Fairfield, NJ. This location provides technical, financial, and administrative support to all facilities.

The Americas Operations are divided into 6 regions with each region being managed by a Vice President of Operations and Vice President of Business Management, all reporting through a Senior Vice President located at Fairfield.

Covanta Essex provides solutions for waste disposal through Energy from Waste (EfW) projects. It works in conjunction with participating municipalities to take in household and commercial non-hazardous waste and combusts the waste in boilers to produce steam, which drives turbines which, in turn, produce clean and renewable power. The site organization has a fairly flat hierarchy structure which consists of the Facility Manager, Chief Engineer who manages all Operators, Maintenance Technicians, and other administrative staff.

The Covanta Essex facility located in Newark, NJ. It is interconnected at 138kV. The facility operates two generators with an operating voltage of 13.8 kV. These generators utilize one of two step up transformers, raising export voltage to 138 kV. Independent supply is connected to the grid supplying utility lines through utility disconnect switches DS 905 and DS 906. These lines travel less than one mile to their respective interconnection points. Covanta Essex does not own or maintain any transmission line beyond the disconnect switch located within the facility campus.

Audit Participants

The following is a listing of all personnel from the Audit Team and CVE who were present during the meetings or interviews.

Audit Team Participants

Audit Team Role	Title	Entity
Team Lead	Sr. Consultant	ReliabilityFirst Compliance
Member	Sr. Engineer	ReliabilityFirst Compliance

CVE Audit Participants

Title	Entity
NERC/Asset Compliance Specialist	Covanta Energy, Inc.
V.P. Maintenance/Asset Reliability	Covanta Energy, Inc
Facilities Manager	Covanta Essex Company
Chief Engineer(acting)	Covanta Essex Company

Audit Results

The audit team evaluated CVE for compliance with forty-four (44) requirements in the 2010 NERC Compliance Monitoring and Enforcement Program (CMEP). The audit reviewed NERC Reliability Standards for the period of June 18, 2007 to April 23, 2010. CVE submitted information and documentation for the audit team's evaluation of compliance with requirements. The audit team reviewed and evaluated all information provided by CVE to assess compliance with standards applicable to CVE at this time.

Based on the information and documentation provided by CVE, the audit team found CVE to be compliant with thirty-seven (37) applicable requirements. The audit team determined that seven (7) requirements were not applicable to CVE. The audit team did not identify any violations as a result of this audit.

Findings

The following table details the findings for compliance for the scope identified for this audit.

Reliability Standard	Req.	Finding
CIP-001-1	R 1	Compliant
CIP-001-1	R 2	Compliant
CIP-001-1	R 3	Compliant
CIP-001-1	R 4	Compliant
COM-002-2	R 1	Compliant
FAC-002-0	R1.4	Compliant
FAC-002-0	R1.5	Compliant
FAC-008-1	R1	Compliant
FAC-008-1	R1.1	Compliant
FAC-008-1	R1.2	Compliant
FAC-008-1	R1.2.1	Compliant
FAC-008-1	R1.2.2	Compliant
FAC-008-1	R1.3	Compliant
FAC-008-1	R1.3.1	Compliant
FAC-008-1	R1.3.2	Compliant
FAC-008-1	R1.3.3	Compliant
FAC-008-1	R1.3.4	Compliant
FAC-008-1	R1.3.5	Compliant
FAC-008-1	R2	Compliant
FAC-008-1	R3	Compliant
FAC-009-1	R1	Compliant
FAC-009-1	R2	Compliant
IRO-001-1.1	R8	Compliant
IRO-004-1	R4	Compliant
IRO-005-2	R13	Compliant
NUC-001-1	R3	N/A
NUC-001-1	R4	N/A
NUC-001-1	R4.1	N/A
NUC-001-1	R4.2	N/A
NUC-001-1	R4.3	N/A
NUC-001-1	R5	N/A
NUC-001-1	R6	N/A
NUC-001-1	R7	N/A
NUC-001-1	R8	N/A
PRC-001-1	R1	Compliant

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PRC-001-1	R2	Compliant
PRC-001-1	R2.1	Compliant
PRC-001-1	R3.1	Compliant
PRC-001-1	R5	Compliant
PRC-001-1	R5.1	Compliant
PRC-004-1	R2	Compliant
PRC-005-1	R1	Compliant
PRC-005-1	R1.1	Compliant
PRC-005-1	R1.2	Compliant
PRC-005-1	R2	Compliant
PRC-005-1	R2.1	Compliant
PRC-005-1	R2.2	Compliant
PRC-017-0	R1	N/A.
PRC-017-0	R1	N/A
PRC-017-0	R1.1	N/A
PRC-017-0	R1.1.1	N/A
PRC-017-0	R1.1.2	N/A
PRC-017-0	R1.1.3	N/A
PRC-017-0	R1.1.4	N/A
PRC-017-0	R1.2	N/A
PRC-017-0	R1.3	N/A
PRC-017-0	R1.4	N/A
PRC-017-0	R1.5	N/A
TOP-001-1	R3	Compliant
TOP-001-1	R6	Compliant
TOP-001-1	R7	Compliant
TOP-001-1	R7.1	Compliant
TOP-001-1	R7.3	Compliant
TOP-002-2	R3	Compliant
TOP-002-2	R13	Compliant
TOP-002-2	R14	Compliant
TOP-002-2	R14.1	Compliant
TOP-002-2	R14.2	Compliant
TOP-002-2	R15	Compliant
TOP-002-2	R18	Compliant
TOP-003-0	R1	Compliant
TOP-003-0	R1.1	Compliant
TOP-003-0	R2	Compliant
TOP-003-0	R3	Compliant
VAR-002-1.1a	R1	Compliant
VAR-002-1.1a	R2	Compliant
VAR-002-1.1a	R2.1	Compliant

VAR-002-1.1a	R2.2	Compliant
VAR-002-1.1a	R3	Compliant
VAR-002-1.1a	R3.1	Compliant
VAR-002-1.1a	R3.2	Compliant
VAR-002-1.1a	R4	Compliant
VAR-002-1.1a	R4.1	Compliant
VAR-002-1.1a	R4.1.1	Compliant
VAR-002-1.1a	R4.1.2	Compliant
VAR-002-1.1a	R4.1.3	Compliant
VAR-002-1.1a	R4.1.4	Compliant
VAR-002-1.1a	R5	Compliant
VAR-002-1.1a	R5.1	Compliant

Compliance Culture

CVE's compliance culture was reviewed by the audit team.

The Covanta NERC Compliance Program assists all of its NERC registered facilities in achieving Bulk Electric System reliability goals while maintaining compliance with all NERC and Regional Compliance Standards/Requirements.

The V.P. Maintenance/Asset Reliability, owns and delegates responsibilities to the NERC/Asset Compliance Specialist who, in turn assigns actionable responsibilities to Individual site Facility Managers. The Facility Manager then assumes ultimate NERC compliance responsibility for their site. Responsibility may be further delegated to key site team members, which in turn will carry out technical and/or administrative details of the program. These efforts return to each facility manager and then back to NERC/Asset Compliance Specialist and V.P. Maintenance/Asset Reliability associated with FERC/NERC laws Standards and/or regulations. It accomplishes this goal by performing audits, reviews and investigations; augmenting registered entity compliance through effective training programs; and fostering the Values of honesty, integrity, respect, trust, and corporate responsibility in maintaining Bulk Electric System Reliability.

The NERC Compliance program is owned by a member of senior level management within Covanta, VP, Maintenance/Asset Reliability who centrally oversees all efforts with the NERC Compliance program, with assistance from a full time dedicated employee, NERC/Asset Compliance Specialist.

Locally, at each registered plant, the Facility Manager (FM) or General Manager (GM) has direct accountability for NERC Compliance. Assisting the FM or GM is a NERC representative who is also a local subject matter expert on NERC procedures and standards.

Covanta Energy and its' registered entities currently have sufficient resources dedicated to their NERC Compliance efforts. Collectively, they have: 1. a member of Senior Management dedicated to overseeing Covanta's NERC/Regional Compliance Program; 2. A full-time dedicated employee position (NERC/Asset Compliance Specialist) working on and coordinating NERC Compliance efforts; 3. A cadre of thirty (30) plant employees dedicated to NERC Compliance; 4. An external consultant hired to provide GAP analysis and NERC Standards training. The centralized NERC Compliance Team (previously listed) is engaged to support current registered facilities and their applicable registered functional compliance requirement responsibilities.

As part of Covanta's Senior Management the V.P. Maintenance/Asset Reliability, is able to engage other senior members on NERC Compliance issues as necessary. The V.P. Maintenance/Asset Reliability, has identified all the personnel in need of NERC Compliance training and has developed both training materials along with frequency intervals for each. Training materials are distributed to registered sites which, in turn, conduct necessary training for identified personnel. Training is documented and records kept at each facility with copies sent to NERC/Asset Compliance Specialist. All training materials are available continuously on the company's NERC Reliability Standards (Compliance Program) intranet website continues to increase his counterpart's awareness and participation on many key compliance issues. This program is 100% supported from the CEO, to the COO, the President, Americas, and the Sr. VP of Operations, and also throughout all applicable NERC registered domestic sites, in addition to NERC Compliance Program supporting team members. The development of a comprehensive and focused set of NERC –COV documents paralleling the NERC Reliability Standards relevant to Covanta's GO and GOP functions enables Covanta to effectively meet Compliance to the NERC Standards/Requirements.

These NERC-COV(Covanta) documents are completed for all applicable NERC Standards/Requirements including those requirements not presently being reviewed for the current Annual Compliance Program illustrates the foresight of this program and the commitment to Covanta defining and structuring an exacting and timely compliance response to all present and future compliance obligations to NERC and Regional Standards /Requirements.

Additional information pertaining to the compliance culture of CVE can be found in Covanta's Internal Compliance Survey.