



# **Compliance Audit Report Public Version**

**Constellation Energy Control and  
Dispatch Group (CECD)  
October 23-25, 2007**

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

**Report Date:  
November 28, 2007**

## Table of Contents

EXECUTIVE SUMMARY.....	3
AUDIT PROCESS.....	3
<i>Objectives</i> .....	3
<i>Scope</i> .....	4
<i>Methodology</i> .....	4
<i>Company Profile</i> .....	5
<i>Audit Specifics</i> .....	6
AUDIT RESULTS.....	7
<i>Findings</i> .....	8
<i>Conclusions</i> .....	9
SUMMARY OF CECD RESPONSE TO THE AUDIT FINDINGS.....	10
APPENDIX 1: CONFIDENTIAL SECURITY SENSITIVE INFORMATION.....	<b>Error!</b>
	<b>Bookmark not defined.</b>

## EXECUTIVE SUMMARY

Constellation Energy Control and Dispatch Group (CECD) was audited on October 23-25, 2007 for compliance with the requirements contained in the NERC Reliability Standards that are currently enforceable and apply to CECD's operation. CECD has been delegated, or has contracted to provide services as the operating agent for various entities registered as Balancing Areas within both the SERC Reliability Corporation (SERC) and [Western Electricity Coordinating Council](#) (WECC) Regions. Each Registered Entity is ultimately responsible for compliance with NERC Reliability Standards. The audit was designed to encompass Reliability Standards in both SERC's and WECC's 2007 Compliance Enforcement Plan. This was SERC's and WECC's first joint regional co-led audit.

This audit focused on documents and other evidence provided to SERC and WECC by the staff of CECD, and did not include any evidence obtained through system observation or inspection. The findings of the audit are based on the state of compliance at the time of the audit, and do not reflect past compliance activities or activities that will be completed in the future.

The audit was conducted by asking CECD staff to demonstrate compliance with valid evidence of meeting each individual requirement and sub-requirement contained in the reliability standards that had been previously identified by SERC and WECC as applicable to CECD. The audit team expected CECD staff to cite specific portions of the evidence that demonstrated compliance. This evidence and the citations were documented and evaluated by the Audit Team for the level of compliance and agreement with the requirement. If all of the requirements and sub-requirements of an audited standard were met, then CECD was judged to be compliant. Likewise, if any of the requirements or sub-requirements were not fully met, then CECD was judged to have a possible violation of the standard. In other words, only a score of 100% is identified as compliant; 99% and below is a possible violation.

CECD provided adequate evidence of compliance for all of the reliability standards assessed with the exception of reliability standard PER-002, Operating Personnel Training. The Audit Team discovered a possible compliance violation of Requirement 3.1 of PER-002.

The link to the Constellation Energy Control and Dispatch Group NOP can be viewed [here](#).

## AUDIT PROCESS

### *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.<sup>1</sup> The audit objectives are:

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<sup>1</sup> North American Electric Reliability Corporation CMEP, paragraph 3.1, Compliance Audits

- Independently and objectively review CECD's compliance with the requirements of the reliability standards that are applicable to CECD based on the Constellation (CECD)'s functions in the bulk electric system as determined by SERC and WECC.
- Validate compliance with applicable reliability standards from the NERC 2007 Implementation Plan list of actively monitored standards.

### *Scope*

The scope of the audit of CECD involved looking at all Balancing Authority standards that are in the NERC 2007 Compliance Monitoring and Enforcement Plan. Of the standards that apply to CECD's operation, a set was selected for review in this audit.

Note: For the 2007 compliance program, the monitoring period for the compliance audit will be the past 12 months or periods specified in individual reliability standards. The monitoring period is not limited to the time period for which penalties and sanctions are assessed.

### *Methodology*

The audit was conducted by reviewing all standards applicable to CECD's operation in the NERC 2007 Enforcement Plan relative to balancing functions, and any standards that are currently covered by a mitigation plan. These standards were grouped and scheduled during the day to make the most efficient use of CECD's staff. The CECD staff had been briefed on the standards that were to be addressed so that documentation and evidence of compliance could be assembled in advance of the interviews.

Two teams of auditors and subject matter experts were identified; one team audited a selected set of standards, a second team audited the remaining set of standards. Each team had a moderator who initiated dialogue on each standard requirement, requested compliance evidence, and documented the evidence and CECD staff response.

This was done by asking CECD staff to demonstrate valid evidence of meeting each and every individual requirement and sub-requirement contained in the standards that had been previously identified by SERC and WECC to CECD as subject to this audit. CECD staff responded by providing evidence in the form of reports, procedures and other documents. CECD staff then evaluated the quality of the evidence and cited specific portions of the evidence that demonstrated compliance. This evidence and the citations were documented and evaluated by the Audit Team for the level of compliance and agreement with the requirement.

Discrepancies between the requirement and the evidence provided were the subject of dialogue among the team members and CECD staff members until it could be agreed that each requirement was met by the cited evidence or other evidence offered. If it was felt that, after all evidence had been presented and discussed, that CECD did not have sufficient evidence to support a finding of compliance, a possible violation would be identified by the team and CECD staff.

The Audit Team conducted an Exit Briefing immediately following the audit with CECD compliance audit participants and higher level CECD management personnel. The Audit Team shared its preliminary results verbally and via a presentation. The CECD audit participants asked questions and commented on the Audit Team's findings.

### *Company Profile*

Constellation Energy is the parent company of Constellation Energy Control and Dispatch, LLC (CECD). Constellation Energy is a Fortune 200 competitive energy company based in Baltimore with businesses that include Constellation Energy Control and Dispatch, Baltimore Gas and Electric, a regulated utility and power generation and wholesale marketing. Constellation Energy Control and Dispatch (CECD) operates out of a control center in Houston, Texas.

CECD provides Balancing Authority services in the SERC and WECC regions of NERC to the following Balancing Authority Areas:

- New Harquahala Generating Company, LLC (HGMA) (WECC)
- Gila River Power, LP (GRMA) (WECC)
- Dynegey Arlington Valley, LLC (DEAA) (WECC)
- Batesville Balancing Authority (BBA) (SERC)
- City of Benton (BUBA) (SERC) – Not identified for audit due to recent registration
- City of North Little Rock, AR (DENL) (SERC)
- City of Conway (CNWY) (SERC)
- City of Ruston (DERS) (SERC)
- Union Power Partners (PUPP) (SERC)
- City of West Memphis (WMUC) (SERC)

The individual Balancing Authority Areas are interconnected to individual Transmission Providers. The Reliability Coordinators differ according to the reliability region in which they are located.

CECD has the following interconnection tie-lines with other neighboring systems:

Balancing Authority Name	Acronym	Load	Generation	Interconnection With	Ties	RC
Western Interconnection						
Dynegey Arlington Valley	DEAA	None	580	SRP	1	RDRC
Gila River Power	GRMA	None	2140	APS	3	RDRC
New Harquahala Generating Company	HGMA	None	1278	SRP	1	RDRC
Eastern Interconnection						
City of Benton, AR	BUBA	70 MW Peak	None	EES	4	SPP
City of Conway, AR	CNWY	207 MW Peak	None	EES	7	SPP
City of North Little Rock, AR	DENL	266 MW Peak	40	EES	13	SPP
City of Ruston, LA	DERS	75 MW Peak	78	EES	1	SPP
City of West Memphis, AR	WMUC	94 MW Peak	None	EES	5	SPP
Batesville Balancing Authority	BBA	None	558	EES/TVA	3	SPP
Union Power Partners	PUPP	None	2040	EES	2	SPP

The Balancing Authority Areas are generation only or load only. With the exception of DENL, DERS, CNWY, WMUC and BUBA, the CECD balancing areas do not contain customer load. The DENL, DERS, WMUC, CNWY and BUBA balancing areas are members of the Southwest Power Pool (SPP) Reserve Sharing Group (RSG). The DEAA, GRMA, and HGMA balancing areas are members of the Southwest Reserve Sharing Group (SRSR), which is administered by the Salt River Project (SRP).

### *Audit Specifics*

The compliance audit was conducted on October 23-25, 2007 at CECD's Control Center in Houston, Texas. Constellation Energy Control and Dispatch Group (CECD) is the operating agent for several Balancing Authority Areas that are located and operate in the SERC and WECC Regions.

Each of the Balancing Authorities has entered into a Balancing Authority Services Agreement, whereby they have contracted with CECD to provide Balancing Authority Services. Based on this agreement, CECD is responsible for Balancing Authority requirements for applicable standards in SERC and WECC.

Some of the CECD audited Balancing Authority entities have registered as other functions under a separate registration that does not reflect the NERC Balancing Authority acronym; however, due to the relationship between CECD and the individual Balancing Authorities, these other functions are not addressed under the Balancing Authority registration.

Constellation Energy, the parent company of CECD, is based in Baltimore with businesses that include Constellation Energy Control and Dispatch, Baltimore Gas and Electric, a regulated utility, and power generation and wholesale marketing operations were not part of the audit scope.

SERC and WECC divided the Audit Group into two sub-teams who worked in separate rooms to review evidence and conduct interviews. Denise Ayers from the CECD operations department and CJ Ingersoll from the CECD compliance department led the audit for Constellation. A legal counsel representative from Constellation attended and observed discussions between Audit Teams and Constellation personnel.

### **Audit Team**

<b>Audit Team Role</b>	<b>Title</b>	<b>Company</b>
Co-Lead (SERC)	Senior Compliance Auditor	SERC
Member	Compliance Auditor	SERC
Member	Compliance Auditor	SERC
Technical Resource (Non-Voting)	Principal Compliance Engineer	SERC
Technical Resource (Non-Voting)	Manager	SOCO
Technical Resource (Non-Voting)	Manager, Training	SERC
Co-Lead (WECC)	Senior Compliance Engineer	WECC
Member	Senior Compliance Engineer	WECC
Member	Compliance Consultant	WECC

Documentation Control	Senior Compliance Data Analyst	WECC
Member	Regional Compliance Program Coordinator	NERC
Member	Regional Compliance Program Coordinator	NERC

### CECD Audit Participants

Title	CECD Organization
Vice President	CECD Operations
Vice President	CECD Operations
Director	CECD Operations
Consultant Applications Development	CECD Applications Development
Senior Counsel	Constellation Energy Corporate Compliance
Director	Constellation Energy Operations Management
Director	Constellation Energy Corporate Compliance

## AUDIT RESULTS

The audit began at 8:30 a.m., October 23, 2007 with an opening presentation the SERC Audit Team Co-Leader. He reviewed the NERC compliance plan for 2007 in general, and how it applied to CECD's operation specifically. He introduced and reviewed the standards to be covered in the audit, and addressed both the expectations of CECD staff and the quality of evidence to be presented. He also covered the basic procedure for the audit, and the bounding rules of conduct. Each member of the Audit Team was introduced and their professional affiliation identified. The staff of CECD was introduced, and general housekeeping matters explained.

CECD staff presented an organizational overview and description of its function.

The Audit Group then split into two previously identified sub-teams for the sake of efficiency, and the individual auditing of standards began at 9:20 a.m. Each team initially reviewed the entity registration status with CECD staff to verify the applicability of each standard. Each standard's audit began with a recitation of each requirement and an explanation, if requested by CECD. CECD staff then presented evidence of how this requirement was met or cite evidence in material already presented to the team. At that point, the evidence was reviewed and dialogue took place until the team reached a point of satisfaction with the evidence. The Audit Team developed consensual approval or concern on each of the requirements (at times asking the CECD staff to leave the room), and then explained the outcome to CECD staff before proceeding to the next requirement. At that point, the team moderator would record the evidence presented to satisfy the requirement and the team's recommendation on that requirement using the appropriate Reliability Standard Work Sheet (RSAW).

After completing a review of all applicable requirements in the standard, the overall compliance to that standard was reviewed first by the team and CECD staff, and then by the Audit Team Leaders. Any concerns or dissention with the recommendation was offered, and the Audit Team Leaders would indicate support or disagreement with the recommendation. Dialogue would

ensue to the point of decision on the part of the Audit Team Leaders. Following this review, the RSAW would be updated with the compliance recommendation.

On Tuesday afternoon a discussion of Constellation’s overall compliance structure and activities took place between the two Audit Team Co-Leaders and CECD Vice President, Constellation Operations Department. The WECC sub-team interviewed CECD personnel regarding the CECD Internal Compliance Program on Wednesday morning prior to starting the audit activities for the day. The review of all applicable standards was completed at approximately 6:00 p.m., Wednesday. The Audit Team then met to review and discuss the findings.

At approximately 8:30 a.m., October 25, 2007, the moderators collected all notes and evidence as needed and began to finalize the RSAWs. The WECC Audit Team Co-Lead began to develop the Exit Briefing with the help of all team members by using a projector connected to his laptop. This work facilitated the consensus of the full team on the content of the Exit Briefing, and re-affirmed the findings and recommendations of the individual sub-teams.

The WECC Audit Team Co-Lead presented the Exit Briefing to the assembled Audit Team and CECD staff at 10:00 a.m., October 25, 2007, which was followed by an informal response from CECD staff. The WECC Audit Team Co-Lead then solicited further comments from CECD staff, and requested that they fill out formal feedback forms for submission to SERC and WECC Compliance Directors. The Audit Team thanked the CECD staff for their support during the audit and then left the CECD facility at approximately 11:00 a.m., October 25, 2007.

### *Findings*

The following table details the summarized auditor notes relating to evidence reviewed for compliance with the monitored reliability standards. Note: the table below also contains findings from non-monitored standards as part of the audit scope.

<b>Reliability Standard</b>	<b>Finding</b>
BAL-001-0	Compliant
BAL-002-0	Compliant
BAL-003-0	Compliant
BAL-006-1	Compliant
CIP-001-1	Compliant
CIP-002-1 through CIP-009-1	Not Assessed
COM-001-1	Compliant
COM-002-2	Compliant
EOP-001-0	Compliant
EOP-003-1	Compliant
EOP-005-1	Compliant
EOP-006-1	Not Applicable
EOP-008-0	Compliant
EOP-009-0	Not Applicable
FAC-003-1	Not Applicable
FAC-008-1	Not Applicable
FAC-009-1	Not Applicable
IRO-001-1	Compliant
IRO-004-1	Compliant
IRO-005-2	Compliant

<b>Reliability Standard</b>	<b>Finding</b>
IRO-006-3	Compliant
IRO-014-1	Not Applicable
IRO-015-1	Not Applicable
IRO-016-1	Not Applicable
PER-001-0	Compliant
PER-002-0	Possible Violation (R3.1)
PER-003-0	Compliant
PER-004-1	Not Applicable
PRC-004-1	Not Applicable
PRC-005-1	Not Applicable
PRC-008-0	Not Applicable
PRC-010-0	Not Applicable
PRC-011-0	Not Applicable
PRC-016-0	Not Applicable
PRC-017-0	Not Applicable
PRC-021-1	Not Applicable
TOP-001-1	Compliant
TOP-003-0	Compliant
TOP-004-1	Not Applicable
TOP-005-1	Compliant
TOP-007-0	Not Applicable
TPL-001-0	Not Applicable
TPL-002-0	Not Applicable
TPL-003-0	Not Applicable
TPL-004-0	Not Applicable
VAR-001-1	Not Applicable

### *Conclusions*

CECD provided adequate evidence of compliance for all of the reliability standards assessed with the exception of reliability standard PER-002, Operating Personnel Training. The Audit Team discovered a possible compliance violation of Requirement 3.1 of PER-002.

# SUMMARY OF CECD RESPONSE TO THE AUDIT FINDINGS

Note: Entity comments included verbatim.

The Personnel Performance, Training and Qualification standards have been a topic of discussion for many years. In fact, well before FERC began to review standards in preparation for Order 693 there was a proposal, a Standards Authorization Request (SAR), submitted for industry consideration by the NERC Personnel Subcommittee dealing with training system operators.<sup>2</sup> This post-August 2003 Blackout SAR stated that “[a] training standard is required to set the minimum acceptable requirements for the development, implementation and maintenance of initial and continuing System Personnel Training Programs.” The subsequent revisions to the SAR further clarified the need for, and purpose of, a new training standard, leading to the drafting phase of the process.<sup>3</sup> NERC Reliability Standard PER-005-0 was initially posted for comment near the end of 2006 with a requirement for a Balancing Authority to document [in its training program], for each activity [identified in a job task analysis], the objectives and assessments that duplicate [mirror] the criteria for successful performance of a defined activity and mastery of the knowledge and skills needed to perform the related task.<sup>4</sup> The latest draft of the proposed standard establishes the mandate to develop a systematic approach to training (SAT), including a company-specific list of task performed by the operators and an obligation to verify the operator’s competency. In other words, a learning objective should be linked with identified job tasks performed by the operator to permit a trainer to measure actual understanding. This brief history of the new training standard illustrates two points that CECD would like to highlight. First, the modifications demonstrate that detailed Requirements are designed to ensure training programs meet the more explicit expectations of the enforcement authorities. Secondly, it is clear that the current PER-002-0 standard does not specify compliance elements in this level of detail and the current training program requirements should be judged accordingly. Therefore, CECD respectfully disagrees with the audit team’s opinion that a Probable Violation exists based on the evidence presented during the audit. However, the training program is being revised to capture the recommendations of the audit team as a matter of good operating practice and in preparation for the new training standard.

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<sup>2</sup> Standard Authorization Request, System Personnel Training, Requestor NERC Personnel Subcommittee, Request Date July 1, 2004 (revised December 1, 2004)

<sup>3</sup> Standard Authorization Request, System Personnel Training, Requestor NERC Personnel Subcommittee, Request Date July 1, 2004 (revised February 8, 2006) [Required competency cannot be measured without taking a systematic approach to developing training, which includes determining competency required by tasks and the existing competency of employees.”] Standard Authorization Request, System Personnel Training, Requestor NERC Personnel Subcommittee, Request Date July 1, 2004 (revised April 12, 2006) [The purpose of this training SAR is to “ensure that System Operators performing real-time, reliability related tasks on the North American Bulk Electric System are competent to perform those tasks. The competency of system operators is critical to the reliability of the North American Bulk Electric System.”]

<sup>4</sup> NERC Reliability Standard PER-005-0, System Operator Training, Draft 1, Requirement 7 and 7.9.