



Midwest Reliability Organization Compliance Audit Report

MRO - WECC

WAUE and WAUW

WAUW NCR05467

WAUE NCR01036

**Western Area Power Administration
August 22-23, 2007**

Confidential Information

(Including Privileged and Critical Energy Infrastructure Information)

Has Been Removed

Public Version

September 20, 2007

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EXECUTIVE SUMMARY

There were 35 Reliability Standards with a total of 138 requirements reviewed during the audit. Out of the 138 total requirements there are 108 that were measurable and assessed for compliance, with findings as follows:

- 108 Full Compliance
- 0 Alleged Non-Compliance
- 30 Not Applicable to Western

Standards & Requirements found to not apply to Western:

- BAL-001 R3 & R4 – Western does not perform overlap regulation
- BAL-002 R6 – Restore Contingency Reserves – RSG responsibility
- MBAL-002 R2 – RC to monitor real time reserves – RC only responsibility
- BAL-003 R4 – No dynamic schedules or pseudo ties for JOU’s on Western system
- EOP-009 R1 & R2 – Western is not a GO/GOP
- FAC-003 R4 – Reporting requirement for RRO only
- IRO-001 R1-7 & R9 – Apply only to RRO and RC
- IRO-004 R1 R2 R5 R6 – Reliability coordination - apply only to RC
- PRC-004 R2 – Generator misoperations - Applies to GO only
- PRC-010 R1 R2 – UVLS Design – No UVLS on the Western system
- PRC-011 R1 R2 – UVLS Maintenance – No UVLS on the Western system
- PRC-021 R1 R2 – UVLS Program – No UVLS on the Western system
- TOP-003 R4 – RC to resolve scheduling problems – RC only requirement
- TOP-004 R6 – Operating procedures – Not yet in effect.
- TOP-005 R2 – ISN data confidentiality – Western receives no info via ISN
- TOP-007 R4 – RC only requirement

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.¹ The audit objectives are:

- Independently review compliance with the requirements of the reliability standards that are applicable to WESTERN based on their registered functions.
- Validate compliance with applicable reliability standards from the NERC 2007 Implementation Plan list of actively monitored standards.
- Validate compliance with MRO standard BAL-MRO-002.

¹ North American Electric Reliability Corporation CMEP, paragraph 3.1, Compliance Audits

Scope

This joint MRO and WECC on-site compliance audit was done as a regular periodic scheduled audit. It included document, process and procedure verification for all applicable standards in the NERC 2007 CMEP.

Methodology

1. Documentation associated with each applicable Requirement of each applicable Reliability Standard was examined by auditors and verified as compliant. Upon request, WESTERN provided some information for examination prior to the audit, but most of the evidence was reviewed while on site in the WESTERN office.
2. Documentation not provided to MRO prior to the audit was reviewed. WESTERN subject matter experts were on hand to assist the team in locating the appropriate references that served as evidence of compliance.
3. Interviews were held on-site with several operating and planning personnel for purposes of verifying that the processes and procedures detailed in documentation was actually being carried out and that the users were familiar with the documents and used them.

Registered Entity Overview:

The Western Area Power Administration (Western) was organized in 1977, within the U.S. Department of Energy, to provide transmission for power generated at U.S. Army Corps of Engineers and U.S. Bureau of Reclamation hydroelectric power plants. The Western Area Power Administration Corporate Service Office is located in Lakewood, Colorado.

The Upper Great Plains Region (UGPR) of Western has its regional office in Billings, MT. In addition to the Operations Office in Watertown, UGPR has state maintenance offices in Ft. Peck, MT, Bismarck, ND, and Huron, SD. UGPR operates Balancing Authorities (BA) in the western (WAUW) and eastern (WAUE) interconnected electrical systems, in the Western Electricity Coordinating Council (WECC) and the Midwest Reliability Organization (MRO) Reliability Regions.

Western UGPR owns and operates 7747 miles of transmission line and 99 substations in Montana, North Dakota, South Dakota, Nebraska, Western Minnesota, and Western Iowa. This Western UGPR transmission system comprises the majority of the Integrated Transmission System (IS). The IS also includes transmission facilities owned by the other IS members. The entire IS is under Western's tariff. Western administers this tariff for the members and operates the system for the benefit of all. The IS members are Western, Basin Electric Power Cooperative, and Heartland Consumers Power District. Northwestern Public Service Company receives facility credits for their transmission system from the IS. This allows entities to use Northwestern Public Service Company by purchasing IS service..

Western UGPR serves a peak load of 131 MW in its western Balancing Authority (WAUW), and 3038 MW of load in its eastern Balancing Authority (WAUE). Both system peaks occurred on July 23, 2007.

Voltage levels used in the UGPR system include: 345 kV, 230 kV, 161 kV, 115 kV, 100 kV, and 69 kV and lower (down to 12.47 kV). Number of miles at each voltage level is as follows:

345 kV:	458 mi.
230 kV:	3721 mi.
161 kV:	495 mi.
115 kV:	2831 mi.
100 kV:	15 mi.
<u>69 kV & lower:</u>	<u>227 mi.</u>
Total	7747 mi.

WAUW is interconnected with: WACM at 230 kV (1 location),
NWMT at 230 kV (2), 161 kV (2), 115 kV (1), 69 kV (2), and
WAUE at Miles City DC tie

WAUE is interconnected with: OTP at 230 kV (4), 115 kV (10), 69 kV and lower (7),
NSP at 345 kV (1), 230 kV (4), and 115 kV (4),
GRE at 230 kV (3), 115 kV (2), and 69 kV (1),
MEC at 345 kV (1), 230 kV (1), 161 kV (5), and 69 kV (15),
NPPD at 345 kV (3), 230 kV (5), and 115 kV (5),
ALTW at 161 kV (1), and 69 kV (3),
AECL at 230 kV (1),
SPC at 230 kV (1),
WAUW at Miles City DC Tie, and
WACM at Rapid City and Stegall DC Ties

Registered Entity Functions Assessed During Audit:

BA	DP	GOP	GO	LSE	PA	PSE	RC	RP	RSG	TOP	TO	TP	TSP
X				X		X		X		X	X		X

Audit Specifics

The compliance audit was conducted on August 22-23, 2007 at the Western office in Watertown, South Dakota. The audit team audited all functions for which Western is registered.

MRO Audit Team

Audit Team Role	Name	Title	Company
Lead	Shel Berg	Director, Technical Services	MRO
Member	Ed Riley	WECC Staff	WECC
Member	Mike Brytowski	Engineer Associate	MRO
Member	Ed Ruck	Regional Coordinator	NERC
Member	Jim Stuart	WECC Staff	WECC

Western Audit Participants

Title
Operations Support & Compliance Mgr
Transmission System Planning Mgr
N.D. State Maintenance Mgr
Mgr Trans Sched & Gen Dispatch
S.D. State Maintenance Mgr
Montana State Maintenance Mgr
Power Operations Specialist (Trainer)
Transmission Operations Manager
Electrical Engineer
Electrical Engineer Relay Analysis
Regional Maintenance Manager
Electrical Engineer System Protection
Power System Dispatcher
Power System Dispatcher
Power System Dispatcher
Power System Dispatcher

AUDIT RESULTS

Findings

Reliability Standard	Finding
BAL-001-0	Compliant
BAL-002-0	Compliant
BAL-003-0	Compliant
MBAL-002 MRO	Compliant
CIP-001-1	Compliant
CIP-002-1 through CIP-009-1	Complied with survey request.
COM-001-1	Compliant
EOP-001-0	Compliant
EOP-003-1	Compliant
EOP-005-1	Compliant
EOP-008-0	Compliant
EOP-009-0	N/A
FAC-003-1	Compliant
FAC-008-1	Compliant
FAC-009-1	Compliant
IRO-001-1	Compliant
IRO-004-1	Compliant
PER-002-0	Compliant
PER-003-1	Compliant
PRC-004-1	Compliant
PRC-005-1	Compliant
PRC-008-0	Compliant
PRC-010-0	N/A
PRC-011-0	N/A
PRC-016-0	Compliant
PRC-017-0	Compliant
PRC-021-1	N/A
TOP-003-0	Compliant
TOP-004-1	N/A
TOP-005-1	Compliant
TOP-007-0	Compliant
TPL-001-0	Compliant
TPL-002-0	Compliant
TPL-003-0	Compliant
TPL-004-0	Compliant
VAR-001-1	Compliant

Conclusions

The Audit Team found the Western staff to be very professional and dedicated to the reliable operation of the power system under their control. The Audit Team would like to thank them for the effort made in preparing for this audit, for being well prepared, for being candid with their

comments and with their own assessment of compliance. We also thank them for their hospitality and for making the audit team feel welcome.

Congratulations on achieving 100% compliance!

Thank you for your participation.

A handwritten signature in black ink, appearing to read "Shel Berg". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

Shel Berg
MRO Compliance Office