

MARCH 21, 2023

RELIABILITY & SECURITY

Virtual Workshop





Risk Impacts and Cold Weather

March 21, 2023

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Objectives

- Determine how EOP-011-2 will address risks to the BES from cold weather events.
- Understand how site-specific conditions and equipment can have impact on approaches to audit.

Main Messages

- A new standard or requirement without previous compliance history may be approached differently.
- Variable risks can result in different approaches.
- Inherent risk, history of internal compliance programs, and known internal controls may impact the level of inquiry to satisfy reasonable assurance of compliance.

Main Messages

What WECC can do:

- Identify risks to reliability
- Identify compliance/noncompliance with the standards
- “Require” mitigation for noncompliance with standards
- “Encourage” mitigation of risks through outreach

Consideration for Audit Approach

- Standard Requirements in Scope: EOP-011-2 Requirements 7 and 8
 - These are new requirements and have never been assessed
- Entity Information
 - Compliance/Performance History
 - Location of facilities
 - Types of facilities

Consideration for Audit Approach

Audit Approach Options:

- Checkbox audit → forced mitigation
- Risk identification and outreach

What is the Target Risk?

- Risk that a Registered Entity will not be compliant with a given requirement?
- Risk of unplanned and widespread loss of resources during a severe cold weather event?
- Does Generator Owner compliance with EOP-011-2 mitigate the target risk to the BES?

What are Possible Audit Approaches?

- Review and assessment of entity documents
 - Plans and procedures
 - Records and logs of performance
- Interviews and discussions
- Site visits and observations

Cold Weather Standards

- EOP-011-2 Emergency Preparedness and Operations.
- R7—Each Generator Owner shall implement and maintain one or more cold weather preparedness plan(s) for its generating units. The cold weather preparedness plan(s) shall include seven unique items.


Cold Weather Standards

- Generating unit(s) freeze protection measures
- Annual inspection and maintenance of generating unit(s) freeze protection measures
- Generating unit(s) capability and availability
- Generating unit(s) fuel supply and inventory concerns
- Generating unit(s) fuel switching capabilities
- Generating unit(s) environmental constraints
- Generating unit(s) minimum operating temperature

Cold Weather Standards

R8—Each Generator Owner in conjunction with its Generator Operator shall identify the entity responsible for providing the generating-unit-specific training, and that identified entity shall provide the training to its maintenance or operations personnel responsible for implementing cold weather preparedness plan(s) developed pursuant to Requirement R7.

Going into the Audit

	EOP-011-2 R7 and R8
Compliance Program	Historically has demonstrated strong compliance program. Orko seeks information to clarify expectations on new standards. WECC risk objectives may focus on how Orko has incorporated the new standards into its compliance programs and learn of the challenges it has faced.
Controls	Has developed and communicated internal controls through its ICDCT response.
Data Provided	R7. Working Paper is well written and includes a discussion of some internal controls and review process. Narrative is supported by dated documentation of maintenance performance. R8. Working Paper references included training materials and a summary of training attendance by name and date.
Facilities	Generation Portfolio consists of Thermal Generation located in a region that experiences freezing weather and precipitation on an annual seasonal basis. Orko has been addressing winter operations for many years.

EOP-011-2 Approach to Audit—Orko

R7—Review of cold weather preparedness plan.

- Very clear all required elements were addressed in the plan itself except fuel switching, which was identified in the Working Paper as not applicable.
- Published plan contained initiation triggers, and multiple site-specific details that should result in timely and effective implementation and mitigation of cold weather conditions.
- One interview was held to discuss the entity's past lessons learned with cold weather, how this was considered for its new unit, and how information was communicated to the TOP and BA.

EOP-011-2 Approach to Audit—Orko

R8—Training on cold weather preparedness plan.

- Good training summary provided on a good preparedness plan.
- Audit team accepted the training summary provided and chose not to request training attendance documentation.

Orko Findings

- No findings of noncompliance for R7 or R8.
- No Areas of Concern or Recommendations.
- **Positive Observation:** related to their process for in-service validations of freeze protection based on temperature in addition to the annual maintenance activities.
- **Input to Compliance Oversight Plan:** Based on adequate documentation and evidence of internal controls implementation, the recommendation to the Risk Team is Orko should be considered a low risk with respect to EOP-011-2 for the GO function.

Going into the Audit



EOP-011-2 R7 and R8

Compliance Program

History of noncompliance for other standards with apparent cause being poor or non-existent internal controls or lack of awareness of standards expectations. Minimal knowledge about Sunbear's compliance program or controls environment; therefore, WECC risk objectives are directed toward details of compliance with the standards.

Controls

ICDCT response limited the internal controls to the documents required by the standards.

Data Provided

R7. RSAW provided little insight other than referencing the CW prep plan. Stated no freeze protection was installed on its facilities.
R8. Initial Training information was a list of names and an attestation of completed training.

Facilities

Sunbear Power's portfolio consists exclusively of photo voltaic solar arrays located in a warm-climate area rarely subject to winter weather conditions.

EOP-011-2 Approach to Audit—Sunbear Power

R7—Review of cold weather preparedness plan documents.

- Some elements specified to be addressed in the plan were not initially found in the plan.
- Cold weather data for capabilities and availability only addressed designed temperature and did not consider impacts of precipitation.
- A data request was issued to explain items that could not be located in the plan.
- Interview was held to discuss how Sunbear would initiate the plan during a cold weather event.

EOP-011-2 Approach to Audit—Sunbear Power

R8—Training on cold weather preparedness plan.

- A data request was submitted to provide attendance records of training on the cold weather preparedness plan for all personnel who received training.
- Interview was conducted with two selected staff personnel that had the training to discuss the training content.

Sunbear Power Findings

No findings of noncompliance!

R7: Sunbear Power cold weather preparedness plan did exist and met the minimum required content for its facilities.

Area of Concern: Sunbear Power does not include any process for implementing local inspection or monitoring of conditions at its facilities before or during cold weather conditions to identify potential impacts.

Area of Concern: Sunbear Power did not include an assessment of conditions that would trigger any implementation of its cold weather preparedness plan. Specifically, any reporting to the TOP, BA, or RC of capability that might be impacted by freezing precipitation at its facilities.

Sunbear Power Findings (Continued)

Area of Concern: Sunbear Power did not include a process to update its cold weather data. Specifically, reporting to the TOP, BA, or RC of changes to capability due to freezing precipitation at its facilities.

Recommendation: While overall risk of impact specifically due to extreme cold for Sunbear Power facilities is low, output of generation can be much lower than normal capability during severe weather that is impacting other nearby facilities. Audit team recommends Sunbear perform an assessment of impacts to capability for use during severe cold weather events.

Sunbear Power Findings (Continued)

No findings of noncompliance for R8.

Recommendation: Sunbear Power should retrain following enhancements or changes to its cold weather preparedness plan.

Input for Compliance Oversight Plan: Based on facility type and location, BES risk due to cold weather is low. However, improvements to plans could help mitigate regional situational awareness. Plans are minimally adequate for current standard and internal controls are not formalized. Sunbear should be considered for follow-up due to AOC and reassessed for any changes to standards, footprint, or facility changes.

Conclusions

- Performance history and experience can influence the level of detail auditors seek to establish reasonable assurance of compliance.
- Internal controls that attempt to assure capability and preparation to perform function to reduce perceived risk.
- An entity experience can vary based on information provided.
- Auditor conclusions are inputs to the Compliance Oversight Plan.



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