

Project 2008-06 Cyber Security Order 706 SDT
33rd Meeting Agenda
April 12, 2011 Tuesday - 8:00 AM to 6:00 PM PDT
April 13, 2011 Wednesday - 8:00 AM to 6:00 PM PDT
April 14, 2011 Thursday - 8:00 AM to 6:00 PM PDT
Sacramento Municipal Utility District (SMUD)
6201 S Street, Sacramento, CA 95817

NOTE: Agenda Times May be Adjusted as Needed during the Meeting

Proposed Meeting Objectives/Outcomes:

- To review CIP V5 multiple standard format and standard/requirement mapping (CIP-002 – CIP-00X)
- To review and refine CIP Version 5 BES Cyber System identification and security requirements
- To review and finalize style guide for drafting of CIP requirements
- Initial draft of CIP-002-5 through CIP-009-5 Requirements
- To review and discuss implementation plan concepts
- To agree on next steps and assignments

Timed Agenda

Tuesday April 12, 2011 8:00 a.m. - 6:00 p.m. PDT

8:00 a.m. **Introduction, Welcome Opening and Host remarks-** *John Lim, Chair & Phil Huff, Vice Chair,*
Roll Call; NERC Antitrust Compliance Guidelines- *Joe Bucciero, NERC*

8:15 **Review of meeting objectives and Agenda-** *John Lim*

8:20 **Industry Review-** *Scott Mix, NERC, Mike Keane, FERC and others*

- Cyber Attack TF Report
- DOE/NIST/NERC Risk Management Process
- CIP-005-4 Update
- Other Cyber Security business

8:50 **Review of CIP V5 Multiple Standard Format and Mapping –** *John Lim*

10:00 Break

10:15 **Review of CIP-002-5 impact levels –** *John Lim*

12:00 Lunch

1:00 **Review of CIP-002-5 Standard -** *John Lim*

3:00 Break

3:15 **Review of Style Guide –** *Phil Huff*

5:50 **Review any Drafting Assignments and Wednesday’s agenda**

6:00 Recess

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Wednesday April 13, 2011 8:00 a.m. - 6:00 p.m. PDT

8:00 a.m. **Welcome and Agenda Review, Roll Call and Antitrust Guidelines** – *John Lim, Philip Huff, Joe Bucciero*

8:15 **Review Project Schedule** – *Philip Huff*

8:40 **Review and Refine CIP-003-5** – Security Management Controls, Change Management, Information Protection and Vulnerability Assessment – *Dave Revill*

10:00 *Break*

10:15 **Review and Refine CIP-004-5** – **Personnel and Training** – *Doug Johnson*

12:00 *Lunch*

1:00 **Review and Refine CIP-007-5 and CIP-005-5** – **System Security and ESP** – *Jay Cribb*

3:00 *Break*

3:15 **Review and Refine CIP-006-5** – **Physical Security**– *Doug Johnson*

5:50 **Review any Drafting Assignments and Thursday's agenda**

6:00 *Recess*

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Thursday April 14, 2011 8:00 a.m. - 6:00 p.m. PDT

8:00 a.m. **Welcome and Agenda Review, Roll Call and Antitrust Guidelines – Philip Huff, Joe Bucciero**

8:15 **Review and Refine CIP-004-5 and CIP-007-5 - Access Control – Phil Huff**

10:00 *Break*

10:15 **Review and Refine CIP-008-5 and CIP-009-5 – Incident Response Plan and Recovery Plan – Scott Rosenberger**

12:00 *Lunch*

1:00 **Review and Discuss Implementation Plan Concepts – Phil Huff**

2:30 **Discussion on Regional Audit staff meeting goals and objectives – Phil Huff**

3:00 *Break*

3:15 **Discussion on Regional Audit staff meeting goals and objectives (cont)**

3:45 **Review Communication Plan – Joe Bucciero**

4:30 **Review SDT May 2011, Little Rock, AR (AECC) Meeting**

5:00 *Adjourn*

Cyber Security Order 706 Standard Drafting Team (Project 2008-06)

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CSO706 SDT
Meeting Schedule and Objectives
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Meeting Schedule and Objectives (March 2011)

Development Process

- Face-to-face meetings used to review/refine the entire Standard. Full team reviews Standards to raise issues, formulate concepts to address issues, ensure consistency across sub-teams and further develop work products.
- Sub-teams meet in open web conferences in between face-to-face meetings to address issues raised by the full team.
- Full team 2 hour web conference the 2nd Thursday from 12:00a – 2:00p after every full team meeting to receive sub-team status updates and provide initial feedback.

Meeting Location	Dates	Meeting Objective
Columbus, OH AEP	01/18 to 01/20/2011	Develop Needs, Goals and Objectives. Develop project plan.
Interim	1/20 to 2/15/2011	Sub-Teams to: (1) develop/review rationale statements for each requirement in CIP-011, (2) document prior version references, and (3) develop change documentation for each table row.
Taylor, TX ERCOT	2/15 to 2/17/2011	Full review of Standards requirements, rationale and change justification Discussion with NERC Compliance staff on programmatic requirements
Interim	2/17 to 3/15/2011	Sub-teams continue drafting requirements.
New York, NY ConEd	3/15 to 3/17/2011	Document minimum level requirements, number of levels, degree of specificity, ensure consistent audibility and measurability Firm up communication plan, including outreach
Interim	3/17 to 4/12/2011	Sub-teams continue drafting requirements.
Sacramento, CA SMUD	4/12 to 4/14/2011	Review Mapping of Standards into CIP-002 to 00X Initial discussions on implementation plan.

Meeting Location	Dates	Meeting Objective
Interim	4/14 to 5/17/2011	Sub-teams continue drafting requirements. Late April webinar on format, concepts
Little Rock, AR AECC	5/17 to 5/19/2011	Review of Standards and implementation plan
Interim	5/19 to 6/21/2010	Sub-teams continue drafting requirements.
Springfield, MO AECI	6/21 to 6/23/2011	Review of Standards with regional and NERC audit Staff
Interim	6/23 to 7/19/2011	Sub-teams continue drafting requirements based on feedback from regional and NERC audit staff.
Portland, OR (?) PGE	7/19 to 7/21/2011	Review of Standards and implementation plan based on feedback from regional audit staff
Interim	7/21 to 8/23/2011	Sub-teams continue drafting requirements based on review of audit staff feedback
Atlanta, GA NERC	8/16 to 8/18/2011	Technical workshop with invited industry representatives
Interim	8/19 to 9/19/2011	Sub-teams continue drafting requirements based on industry representative feedback
Pomona, CA SCE (?) or WECC	9/20 to 9/22/2011	SDT Meeting Quality assurance review with NERC staff to prepare standards for posting
Interim	10/5 to 11/20/2011	Posting for 45 day formal comment/ballot
	10/25/2011	Technical Webinar
Constellation Baltimore, MD	10/25 to 10/27/2011	SDT Meeting and Technical Webinar
Interim	11/17 to 12/13/2011	Continue responding to industry comments
FRCC	12/6 to 12/8/2011	Quality assurance review with NERC staff on posting for formal comment with concurrent ballot

Other options:

GTC

SERC

WECC

**CSO 706 SDT DRAFTING SUB-TEAMS
VERSION 5**

Sub-Team	
CIP 002 BES System Categorization	John Lim (Lead), Rich Kinas, Robert Lloyd <i>(Observer Participants: Tom Sims, Jim Fletcher, Dave Dockery, Bryn Wilson, Martin Narendorf)</i> <i>(FERC: Mike Keane, Claudine Planter-Pascal)</i>
Personnel and Physical Security	Doug Johnson (Lead), Rob Antonishen, Kevin Sherlin <i>(Observer Participants: Dave Dockery)</i> <i>(FERC: Drew Kittey, Matt Adeleke)</i>
System Security and Boundary Protection	Jay Cribb (Lead), John Varnell, John Van Boxel, Philip Huff, Christine Hasha <i>(Observer Participant: Brian Newell, Scott Raymond)</i> <i>(FERC: Justin Kelly, Matt Adeleke)</i>
Incident Response and Recovery	Scott Rosenberger (Lead), Joe Doetzl, Tom Stevenson <i>(Observer Participant: Ryan Breed)</i> <i>(FERC: Matt Adeleke, Claudine Planter-Pascal)</i>
Access Control	Sharon Edwards (Lead), Jeff Hoffman, Jerry Freese, Robert Lloyd <i>(Observer Participants: Roger Fradenburgh, Martin Narendorf)</i> <i>(FERC: Mike Keane, Matt Dale)</i>
Change Management, System Lifecycle, Information Protection, Maintenance, and Governance	Dave Revill (Lead), Keith Stouffer, Bill Winters <i>(Observer Participant: Brian Newell)</i> <i>(FERC: Justin Kelly, Matthew Dale)</i>

NEED, GOALS AND OBJECTIVES – PROJECT 2008-06 - CIP CYBER SECURITY STANDARDS V5 – ADOPTED JANUARY 2011

NEED

The need for Critical Infrastructure Protection (CIP) in North America has never been more compelling or necessary than it is today. This is especially true of the electricity sector. Electric power is foundational to our social and economic fabric, acknowledged as one of the most essential and among the most targeted of all the interrelated critical infrastructure sectors.

The Bulk Electric System (BES) is a complex, interconnected collection of facilities that increasingly uses standard cyber technology to perform multiple functions essential to grid reliability. These BES Cyber Systems provide operational efficiency, intercommunications and control capability. They also represent an increased risk to reliability if not equipped with proper security controls to decrease vulnerabilities and minimize the impact of malicious cyber activity.

Cyber attacks on critical infrastructure are becoming more frequent and more sophisticated. Stuxnet is a prime example of an exploit with the potential to seriously degrade and disrupt the BES with highly malicious code introduced via a common USB interface. Other types of attacks are network or Internet-based, requiring no physical presence and potentially affecting multiple facilities simultaneously. It is clear that attack vectors are plentiful, but many exploits are preventable. The common factors in these exploits are vulnerabilities in BES Cyber Systems. The common remedy is to mitigate those vulnerabilities through application of readily available cyber security measures, which include prevention, detection, response and recovery.

In the cyber world, security is truly only as good as its weakest implementation. The need to identify BES Cyber Systems and then protect them through effective cyber security measures are critical steps in helping ensure the reliability of the BES functions they perform.

In approving Version 1 of CIP Standards CIP-002-1 through CIP-009-1, FERC issued a number of directives to the ERO. Versions 2, 3 and 4 addressed the short term standards-related and Critical Asset identification issues from these directives. There are still a number of unresolved standards-related issues in the FERC directives that must be addressed. This version is needed to address these remaining directives in FERC Order 706.

GOALS AND OBJECTIVES

- **Goal 1:** To address the remaining Requirements-related directives from all CIP related FERC orders, all approved interpretations, and CAN topics within applicable existing requirements.
 - **Objective 1.** Provide a list of each directive with a description and rationale of how each has been addressed.
 - **Objective 2.** Provide a list of approved interpretations to existing requirements with a description of how each has been addressed.
 - **Objective 3.** Provide a list of CAN topics with a description of how each has been addressed.
 - **Objective 4.** Consider established security practices (e.g. DHS, NIST) when developing requirements.
 - **Objective 5.** Incorporate the work of Project 2010-15 Urgent Action SAR.
- **Goal 2:** To develop consistent identification criteria of BES Cyber Systems and application of cyber security requirements that are appropriate for the risk presented to the BES.
 - **Objective 6:** Transition from a Critical Cyber Asset framework to a BES Cyber System framework.
 - **Objective 7.** Develop criteria to identify and categorize BES Cyber Systems, leveraging industry approved bright-line criteria in CIP-002-4.
 - **Objective 8.** Develop appropriate cyber security requirements based on categorization of BES Cyber Systems.
 - **Objective 9.** Minimize writing requirements at the device specific level, where appropriate.
- **Goal 3:** To provide guidance and context for each Standard Requirement
 - **Objective 10.** Use the Results-Based Standards format to provide rationale statements and guidance for all of the Requirements.

- **Objective 11.** Develop measures that describe specific examples that may be used to provide acceptable evidence to meet each requirement. These examples are not all inclusive ways to provide evidence of compliance, but provide assurance that they can be used by entities to show compliance.
 - **Objective 12.** Work with NERC and regional compliance and enforcement personnel to review and refine measures.
- **Goal 4:** To leverage current stakeholder investments used for complying with existing CIP requirements.
 - **Objective 13.** Map each new requirement to the requirement(s) in the prior version from which the new requirement was derived.
 - **Objective 14.** Justify change in each requirement which differs from the prior version.
 - **Objective 15.** Minimize changes to requirements which do not address a directive, interpretation, broad industry feedback or do not significantly improve the Standards.
 - **Objective 16.** Justify any other changes (e.g. removals, format)
- **Goal 5:** To minimize technical feasibility exceptions.
 - **Objective 17.** Develop requirements at a level that does not assume the use of specific technologies.
 - **Objective 18.** Allow for technical requirements to be applied more appropriately to specific operating environments (i.e. Control Centers, Generation Facilities, and Transmission Facilities). (also maps to Goal 2)
 - **Objective 19.** Allow for technical requirements to be applied more appropriately based on connectivity characteristics. (also maps to Goal 2)
 - **Objective 20.** Ensure that the words “where technically feasible” exist in appropriate requirements.
- **Goal 6:** To develop requirements that foster a “culture of security” and due diligence in the industry to compliment a “culture of compliance”.
 - **Objective 21.** Work with NERC Compliance Staff to evaluate options to reduce compliance impacts such as continuous improvement processes, performance based compliance processes, or SOX-like evaluation methods.
 - **Objective 22.** Write each requirement with the end result in mind, (minimizing the use of inclusive phrases such as “every device,” “all devices,” etc.)
 - **Objective 23.** Minimize compliance impacts due to zero-defect requirements.

- **Goal 7:** To develop a realistic and comprehensible implementation plan for the industry.
 - **Objective 24.** Avoid per device, per requirement compliance dates.
 - **Objective 25.** Address complexities of having multiple versions of the CIP standards in rapid succession.
 - **Objective 26.** Consider implementation issues by setting realistic timeframes for compliance.
 - **Objective 27.** Rename and modify IPFNICCAANRE to address BES Cyber System framework.

CYBER SECURITY FOR ORDER 706 STANDARD DRAFTING TEAM

CSO 706 SDT Consensus Guidelines)

(Adopted, November, 2008, Revised June 2010, Revised July, 2010)

The Cyber Security for Order 706 Standard Drafting Team (Team) will seek consensus on its recommendations for any revisions to the CIP standards.

Consensus Defined. Consensus is a participatory process whereby, on matters of substance, the Team strives for agreements which all of the members can accept, support, live with or agree not to oppose. In instances where, after vigorously exploring possible ways to enhance the members' support for posting CIP standards documents for industry comment or balloting, and the Team finds that 100% acceptance or support of the members present is not achievable, decisions to adopt standards documents for balloting will require at least 2/3rds favorable vote of all members present and voting.

Quorum Defined. The Team will make decisions only when a quorum is present. A quorum shall be constituted by at least 2/3 of the appointed members being present in person or by telephone.

Electronic Mail Voting. Electronic voting will only be used when a decision needs to be made between regular meetings under the following conditions:

- It is not possible to coordinate and schedule a conference call for the purpose of voting, or;
- Scheduling a conference call solely for the purpose of voting would be an unnecessary use of time and resources, and the item is considered a small procedural issue that is likely to pass without debate.

Electronic voting will not be used to decide on issues that would require a super majority vote or have been previously voted on during a regular meeting or for any issues that those with opposing views would feel compelled to want to justify and explain their position to other team members prior to a vote. The Electronic Voting procedure shall include the following four steps:

1. The SDT Chair or Vice-Chair in his absence will announce the vote on the SDT mailing list and include the following written information: a summary of the issue being voted on and the vote options; the reason the electronic voting is being conducted; the deadline for voting (which must be at least 4 hours after the time of the announcement).
2. Electronic votes will be tallied at the time of the deadline and no further votes will be counted. If quorum is not reached by the deadline then the vote on the proposal will not pass and the deadline will not be extended.
3. Electronic voting results will be summarized and announced after the voting deadline back to the SDT+ mailing list.
4. Electronic voting results will be recapped at the beginning of the next regular

meeting of the SDT.

Consensus Building Techniques and Robert's Rules of Order. The Team will develop its recommendations using consensus-building techniques with the leadership of the Chair and Vice Chair and the assistance of the facilitators. Techniques such as brainstorming, ranking and prioritizing approaches will be utilized. The Team's consensus process will be conducted as a facilitated consensus-building process. Only Team members may participate in consensus ranking or votes on proposals and recommendations. Observers/members of the public are welcome to speak when recognized by the Chair, Vice Chair or Facilitator. The Team will utilize Robert's Rules of Order (*as per the NERC Reliability Standards Development Procedure*), as modified by the Team's adopted procedural guidelines, to make and approve motions. However, the 2/3's voting requirement will supersede the normal voting requirements used in Robert's Rules of Order for decision-making on substantive motions and amendments to motions. The Team will develop substantive written materials and options using their adopted facilitated consensus-building procedures, and will use Robert's Rules of Order only for formal motions once the Chair determines that a facilitated discussion is completed.