Project 2008-06 Cyber Security Order 706
37th Meeting Summary
Atlanta, GA

http://www.nerc.com/filez/standards/Project_2008-06_Cyber_Security.html

August 16-18, 2011

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MEETING SUMMARY

John Lim, chair of the Cyber Security Order 706 (CSO706) Standard Drafting Team (SDT) welcomed members and other participants to the Atlanta, GA Meeting of the CSO 706 SDT, and he thanked them for their participation in this meeting. John also acknowledged and thanked Steven Noess, the host for this meeting at NERC's new office facilities, and for all of the support provided by NERC staff in making the meeting possible. Steven reviewed the meeting logistics and safety information. At the beginning of each day, Joe Bucciero, NERC Facilitator, conducted a roll call and reviewed the public meeting notices and reviewed the NERC antitrust guidelines.

Herb Schrayshuen, NERC Vice President of Standards, and Andy Rodriquez, NERC Director of Standards Development welcomed the Drafting Team, the industry stakeholder representatives who were invited by the SDT to attend this meeting, and other drafting team guests to NERC's new offices and facilities in Atlanta and encouraged the team to continue striving forward to prepare meaningful cyber security standards for the reliability of the bulk power system. Gerry Cauley, NERC President and CEO, also addressed the meeting participants on Wednesday, August 17, 2011, and asked the team to be diligent in its work and to continue its effective coordination with NERC Staff to achieve the team's goal of a successful posting of the new CIP standards in 2011.

The chair welcomed the representatives from the industry stakeholder groups to the meeting, expressed his appreciation for their time and effort to review and comment on the draft standards, and encouraged their input. The chair outlined the primary purpose of the meeting which was to review the inputs, issues, and concerns raised with the current draft requirements of the cyber security standards, as well as those potential concerns with the measurability and audit-ability of the draft Version 5 standards. The drafting team members, along with the industry stakeholder representatives, reviewed the text of the requirements and the applicability and measurability of the requirements based on the draft standards.

In addition, the chair outlined the other meeting objectives the SDT sought to accomplish by the end of this meeting: (Agenda Package - see **Appendix #1**)

1. Build consensus with key industry stakeholders on the draft cyber security requirements in advance of posting Version 5 CIP Standards

2. Review and refine any changes to Version 5 drafts of the CIP-002 through CIP-011 requirements

3. Review the draft implementation plan for the Version 5 Standards

4. Discuss the VSLs/VRFs and guidance documents for NERC QR and posting

5. Review the work products needed for NERC QR of Version 5 CIP Standards prior to posting

6. Agree on the next steps by the drafting team, the project schedule, and assignments

7. Review and agree on the drafting team's next steps and assignments.

Meeting Attendance
Appendix #2 contains the meeting attendance list, and the current drafting team roster is included in **Appendix #3**.

Industry Activity Updates
John Lim and Scott Mix provided an update on other industry activity regarding cyber security.

- John Lim reported that the DOE/NIST/NERC Risk Management Process is on track for a late August posting of its initial findings.

- Scott reported on the Cyber Attack Task Force activities (a cyber attack exercise is scheduled to be conducted in November 2011).

- Scott reported on GridSecCon which is scheduled for mid-October 2011 in New Orleans.

- John provided a brief update on the DOE 417 form revisions.

- Scott Mix reported that the EOP-4 V2 and CIP-001 coordination/combination project, which is the event reporting standard, is underway. A posting is scheduled for 4Q2011.

Drafting Team Schedule
The drafting team reviewed the current project and meeting schedule (See **Appendix #4a and #4b**), and the team discussed upcoming meeting dates, objectives, and locations. The team confirmed that the September 2011 meeting will be held at Southern California Edison's facilities in Westminster, California. The purpose of that meeting is to finalize the draft Version 5 CIP Cyber Security Standards and the associated documentation needed for NERC Quality Review and posting. The target date of initial posting of the Version 5 CIP Standards is November 3, 2011.

Action Items & Assignments
The drafting team reviewed the status of the action items (see **Appendix #9**), and reminded those assigned that their inputs are needed prior to the next drafting team meeting (September 20, 2011).

Subteam Assignments
The drafting team agreed that at least for the next couple of weeks, the full drafting team should participate in the interim conference calls to finalize the next draft of the Version 5 standards in time for the September 2011 meeting.

CIP Version 5 Overview
John Lim, Chair, briefly reviewed the Needs, Goals, and Objectives that were established and are being followed by the drafting team in updating the CIP Reliability Standards on cyber security (**Appendix #5**). He also provided a brief overview presentation concerning the CIP Standards and Concepts that are being implemented in Version 5 of the CIP Reliability Standards on Cyber Security. **Appendix #6** contains a copy of the presentation.

Overview and Discussion of CIP Standards

One of the primary objectives of this standard drafting team meeting was to solicit feedback from industry stakeholder organizations on the current state of the CIP Standards on Cyber Security. The latest version of the CIP-002 through CIP-011 standards had been sent to the participants for their review about 2 weeks prior to the meeting.

Each of the drafting subteam leads provided a summary of the requirements and measures as stated in the current version of the specific CIP standards assigned to them, and each of the teams, along with the full drafting team, invited feedback from the industry stakeholder representatives and provided responses to the questions that were raised.

The drafting team members discussed, reviewed, and incorporated changes and edits to the CIP standard requirements, where practical, and otherwise noted the comments in the draft standard document for further consideration by the drafting team as it prepares the updated version of the standards for NERC quality review and eventual posting to the industry for comment and ballot.

The drafting team members will continue to meet over the next few weeks to work on their respective draft requirements and measures to address the comments and feedback received during this meeting. A copy of the latest draft of the CIP standards incorporating changes from this meeting and subsequent conference calls will be sent out to the industry on a weekly basis after close of business on the Friday of each week until the next drafting team meeting scheduled for the week of September 19, 2011.

Interim Conference Calls

The drafting team established daily interim conference calls following the Atlanta meeting to lead up to the September 2011 meeting at Southern California Edison. In response to individual scheduling conflicts causing less participation on individual subteam meetings, the drafting team agreed that the interim calls should aim to have full participation, to the extent possible, by the drafting team. This approach worked well recently, and should be continued.

A schedule was developed to address individual topics for each of the meetings, and all members were asked to attend. Meetings will occur for two hours at a time on specific topics four days a week, for the first two weeks following the August 2011 meeting. Three hour meetings are scheduled for the third week and four hour meetings scheduled for the fourth week leading up to the September 2011 meeting. Having more of the drafting team available for each of the calls has enabled more of the team members to be involved in proposed changes to the requirement drafts, during these interim meetings.

NERC Quality Review Discussion

Laura Hussey and Barbara Nutter from NERC staff join the meeting to discuss the NERC QR process and procedure. NERC is planning to do the QR on all 10 CIP standards in Atlanta using a carefully staged process.

Since there are typically 3 people on the QR team for one standard, NERC has solicited support from 30 people to do the QR on the 10 CIP standards. NERC will be focused on providing appropriate and consistent feedback on the QR feedback across all 10 standards.

The initial thinking is to have all of the respective QR teams review their assigned standard, and then get together in a plenary session to provide first impressions and general observations on the standards. The next step is to have the individual QR teams separate and review their assigned standard to provide focused feedback.

The QR Teams will send their comments to the drafting team for its review of the feedback, and the drafting team will then meet to discuss the revisions necessary to address the comments. When the drafting team completes its QR update, it sends the revised standards along with the QR Team's input to the Quality Review to the Standards Committee Working Group. Any outstanding issues are then resolved and the standards are approved for posting and ballot.

Webinar Planning

The Drafting Team will host an industry webinar on August 24, 2011 as part of its outreach to the stakeholders to give attendees the opportunity to hear how the remaining FERC Order 706 directives are being addressed in Version 5 of the Draft Critical Infrastructure Protection (CIP) Standards on cyber security (CIP-002 through CIP-011). The drafting team presenters (Doug Johnson and David Revill) reviewed their individual portions of the webinar with the team for their critique and feedback. All are welcome to attend, but the drafting subteam leads were also asked to be available as speakers to respond to questions from the industry as needed.

Note: The Webinar occurred on August 24, 2011, and it was well received. There was significant interest on the part of the industry stakeholders as we had nearly 700 participants on the webinar. Many of the questions offered were answered during the webinar, while some questions were handled through email subsequent to the webinar. The webinar agenda is attached to these minutes (**Appendix #8**), and the recording and chat reports are located on the NERC website.

Adjournment

The Chair thanked everyone for attending this meeting, either in person or via the conference call facilities, and he expressed appreciation on behalf of the drafting team to Steven Noess and the NERC Staff for her excellent job in coordinating meeting space and hosting the team at NERC's new facilities in Atlanta, GA.

The Meeting Evaluation Survey results are included as **Appendix #7**.

The meeting adjourned at approximately 4:30 p.m. on Thursday, August 18, 2011.

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Agenda – Appendix 1
Project 2008-06 Cyber Protection Order 706

37th Drafting Team Meeting
Meeting Location: NERC Offices
3353 Peachtree Road NE
Suite 600, North Tower
Atlanta, GA 30326

Tuesday, August 16, 2011 | 8:00 a.m. – 5:30 p.m. ET

Proposed Meeting Objectives/Outcomes
- Receive feedback and build consensus with key industry stakeholders in advance of posting Version 5 CIP Standards
- Review implementation plan
- Review work products needed for QR of Version 5 CIP Standards
- Agree on next steps, schedule, and assignments

Agenda

8:00   **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, Chair*

8:30   **Industry Updates –** *John Lim, Scott Mix, NERC, Mike Keane, FERC and others*

   o   **DOE/NIST/NERC Risk Management Process**

   o   **NERC Cyber Attack Exercise**

   o   **NERC GridSecCon**

   o   **Other Cyber Security business**

9:00   **Overview of CIP Version 5 development and progress –** *John Lim, Philip Huff*

9:30   **Invited feedback on Version 5 approach**

10:00   Break

10:15 **Review modifications made to CIP-002-5 –** *John Lim*

11:15 Invited feedback on CIP-002-5

12:00   Lunch

1:00   Invited feedback on CIP-002-5

2:00   Review modifications made to CIP-003-5 – *Dave Revill, Georgia Transmission*

2:30   Invited feedback on CIP-003-5

3:00   Break

3:15   Review modifications made to CIP-004-5 – *Doug Johnson, ComEd, Philip Huff*

3:45   Invited feedback on CIP-004-5

4:15   Review modifications made to CIP-005-5 – *Jay Cribb, Southern Co*

4:45   Invited feedback on CIP-005-5

5:30   Recess

Wednesday, August 17, 2011 | 8:00 a.m. – 5:00 p.m. ET

Agenda

8:00   Recap of Day 1, Agenda Review, Roll Call and Antitrust Guidelines – *John Lim, Philip Huff, Joe Bucciero*

8:30   Review modifications made to CIP-006-5 – *Doug Johnson*

8:45   Invited feedback on CIP-006-5

9:30   Review modifications made to CIP-007-5 – *Jay Cribb, Philip Huff*

10:00   Break

10:15 Invited feedback on CIP-007-5

11:00 Review modifications made to CIP-008-5 –*Tom Stevenson, Constellation*

11:30 Invited feedback on CIP-008-5

12:00   Lunch

1:00   Review modifications made to CIP-009-5 –*Tom Stevenson*

1:30   Invited feedback on CIP-009-5

2:00   Review modifications made to CIP-010-5 – *Dave Revill*

2:30   Invited feedback on CIP-010-5

3:00   Break

3:15   **Review modifications made to CIP-011-5** – *Dave Revill*

3:45   **Invited feedback on CIP-011-5**

4:30   **Recap of feedback received on version 5 CIP Standards**

5:00   Adjourn meeting with industry stakeholders

Thursday, August 18, 2011 | 8:00 a.m. – 5:00 p.m. ET

Agenda

8:00   **Recap of Day 2, Agenda Review, Roll Call and Antitrust Guidelines** – *John Lim, Philip Huff, Joe Bucciero*

8:15   **Review Project Schedule**

8:30   **Schedule Interim Team Meetings**

8:45   **Review Feedback Received on EACH Version 5 CIP Standard and Agree on Actions to Finalize Drafts** – *Full Drafting Team*

12:00   Lunch

1:00   **Review and Discuss Strawman Implementation Plan** – *Full Drafting Team*

3:00   Break

3:15   **Review Work Products Needed for QR of Version 5** – *Phil Huff/John Lim/Joe Bucciero*

3:45   **Review Version 5 CIP Standards Webinar** – *Phil Huff/Dave Revill/Doug Johnson*

4:30   **Next Steps and Review Objectives for September Meeting** – *Phil Huff/John Lim/Joe Bucciero*

5:00   Adjourn Meeting

Appendix 1-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 two thirds 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.

Appendix 2: Meeting Attendance – August 16-18, 2011

**Members Attending
In Person or via ReadyTalk and Phone**

Name	Company	AUG 16	AUG 17	AUG 18
1. Rob Antonishen	Ontario Power Generation	X	X	X
2. Jay Cribb	Southern Company Services	X	X	X
3. Gerry Freese	AEP	X	X	X
4. Christine Hasha	ERCOT	X	X	X
5. Philip Huff, Vice Chair	Arkansas Electric Coop Corporation	X	X	X
6. Doug Johnson	Exelon Corporation – Commonwealth Edison	X	X	X
7. Rich Kinas	Orlando Utilities	X	X	X
8. John Lim, Chair	**Consolidated Edison Co. NY**	**X**	**X**	**X**
9. Robert Preston Lloyd	Southern California Edison	X	X	X
10. David Revill	Georgia Transmission Corporation	X	X	X
11. Kevin Sherlin	Sacramento Municipal District	X	X	X
12. Tom Stevenson	Constellation	X	X	X
13. John Varnell	Tenaska	X	X	X
14. William Winters	Arizona Public Service.	X	X	X
Joe Bucciero	NERC Facilitator	X	X	X
Scott Mix	NERC Staff	X	X	X
Steven Noess	NERC Staff	X	X	X

Observers

Participant	Affiliation
Tom Alrich	Matrikon
Sharla Artz	SEL
Dewayne Ashford	OG&E
Jan Bargen	FERC
Dave Batz	EEI
Steve Brain	Dominion
Ken Burruss	Xcel Energy
John Calder	Dominion
Larry Camm	SEL
Jack Cashin	EPSA
Paul Crist	Lincoln Electric System
Kathy Daggett	MidAmerican Energy
David Dockery	AECI
Ryan Elbert	BV
Eric Ervin	Westar Energy
Summer Esquerra	NextEra Energy
Jim Fletcher	AEP
John Fridye	ABB-Ventyx
Mike Garton	Dominion
David Gordon	MMWEC
Kuldeep Hak	SCE
Lori Hayes	GE
Darren Highfill	SCE
Annette Johnston	MidAmerican
Michael Keane	FERC
Kim Koster	MidAmerican Energy
Barry Lawson	NRECA
Patti Meara	Network Security Tech
Aileen Meyer	MidAmerican Energy
Daniel Moore	WFEC
Brian Newell	AEP
Dave Norten	FERC
Josh Peresta	Georgia Transmission
Claudine Planter-Pascal	FERC
Clyde Poole	TDi
Austin Rappeport	FERC
Ingrid Rayo	FPL
Amelia Sawyer	CenterPoint Energy
Mark Simon	Encari

Greg Sims	Southern Company
Hong Tang	CenterPoint Energy
Michael Tibbs	CRSI
Melissa Wehde	MidAmerican Energy
Tobias Whitney	GE
Bryn Wilson	Oklahoma Gas & Electric
Matthew Woodzell	Dominion

Appendix 3: Project 2008-06 Drafting Team Roster

1.	**Chair**	John Lim, CISSP Department Manager, IT Infrastructure Planning	Consolidated Edison Co. of New York
2.	**Vice Chair**	Philip Huff Manager, IT Security and Compliance	Arkansas Electric Cooperative Corporation

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Members

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3.		Robert Antonishen Protection and Control Manager, Hydro Engineering Division	Ontario Power Generation Inc.
4.		René Bourassa Engineer	Hydro Québec
5.		Jay S. Cribb Information Security Analyst, Principal	Southern Company Services, Inc.
6.		Sharon Edwards Project Manager	Duke Energy
7.		Gerald S. Freese Director, NERC CIP Compliance	American Electric Power
8.		Christine Hasha Compliance Analyst Senior	Electric Reliability Council of Texas
9.		Jeffrey Hoffman Chief Architect, IT Policy and Security Division	U.S. Bureau of Reclamation Denver Federal Center

10.	Doug Johnson Operations Support Group Transmission Operations & Planning	Exelon – Commonwealth Edison
11.	Robert Preston Lloyd Sr. Technical Specialist, Substation Regulatory Compliance	SC&M Technical Support & Strategy Southern California Edison
12.	Richard Kinas Manager of Standards Compliance	Orlando Utilities Commission
13.	David S Revill Manager, Cyber Security Operations	Georgia Transmission Corporation
14.	Kevin Sherlin Manager, Business Technology Operations	Sacramento Municipal Utility District
15.	Thomas Stevenson General Supervisor Engineering Projects	Constellation Energy
16.	Keith Stouffer Program Manager, Industrial Control System Security	National Institute of Standards & Technology
17.	John D. Varnell Director, Asset Operations Analysis	Tenaska Power Services Co.
18.	William Winters IS Senior Systems Consultant	Arizona Public Service Co.

Consultant to NERC	Joseph Bucciero Standards Development Coordinator	Bucciero Consulting, LLC
NERC Staff	Tom Hofstetter Regional Compliance Auditor	North American Electric Reliability Corporation
NERC Staff	Roger Lampila Regional Compliance Auditor	North American Electric Reliability Corporation
NERC Staff	Scott R Mix Manager Infrastructure Security	North American Electric Reliability Corporation
NERC Staff	Steven Noess Standards Development Advisor	North American Electric Reliability Corporation
NERC Staff	Andy Rodriquez Director of Standards Development	North American Electric Reliability Corporation

Appendix 4: Cyber Security Order 706 - Project Schedule (August 2011)

Meeting Location	Dates	Meeting Objective
Salt Lake City, UT WECC	**7/19 - 7/21/2011**	**Walk-through sample generation and substation environments with the Version 5 requirements to determine feasibility. Output additional guidance based on the walk-through process**
Interim	7/22 - 8/15/2011	Revise drafting requirements based on feedback from walk-through process – **primarily agree to the use of defined terms External Connectivity, BES Cyber System and Routable External Connectivity** Drafting leads prepare for August Meeting with representatives from Industry stakeholder organizations
Washington, DC	7/28/2011	Drafting Team Meeting with FERC Staff
Atlanta, GA NERC	**8/16 - 8/18/2011**	**Review of Standards with Industry Representatives**
Interim Week 1	8/19 - 8/26/2011	Revise drafting requirements based on feedback from Industry Representatives
WEBINAR	**8/24/2011**	**Industry Webinar as outreach to present concepts and schedule for Version 5 CIP Standards**
Interim Week 2	8/25 - 9/2/2011	Revise drafting requirements based on feedback from Industry Representatives
LABOR DAY	9/5/2011	Labor Day Holiday
Interim Week 3	9/6 - 9/9/2011	Update rationale, change documentation and guidance to reflect requirements
Interim Week 4	9/12 - 9/16/2011	Review VRFs and VSLs modified from Version 4 Review CIP-010 and 011 informal comment/response document

Meeting Location	Dates	Meeting Objective
Westminster, CA SCE	**9/20 - 9/22/2011**	**CSO706 Drafting Team approves CIP Standards, implementation plan, and other documentation for NERC Quality Review (QR)**
Quality Review Prep	9/23/2011	Finalize and Issue Version 5 Documents for NERC Quality Review
NERC Quality Review and	9/26 - 10/14/2011	NERC Quality Review & meeting with DT leadership and subteam leads to provide comments
Prepare Consideration of Comments (CIP-010&011)	9/26 – 10/14/2011	Drafting Team prepares Consideration of Comments Summary Document for Draft Version of CIP-010&011) for posting
Interim	10/17 - 10/24/2011	Subteams to review and update standards and all documentation based on QR and prepare for posting
Constellation Baltimore, MD	**10/25 -10/27/2011**	**SDT Meeting to consider QR changes made to the standards and finalize standards for posting**
Interim	10/28 - 11/2/2011	SDT Finalizes CIP V5 Documents for Posting
POSTING	11/3/2011	Post CIP Standards for 45^{+} day formal comment with concurrent ballot
Comment & Ballot Period	11/4 - 12/19/2011	Version 5 CIP Standards 45^{+} day formal Comment and Ballot Period
	11/4 - 11/14/2011	SDT Members Prepare for Industry Webinar on CIP V5 Standards
WEBINAR	**11/15/2011**	**Industry Webinar as outreach to present concepts and schedule for Version 5 CIP-002 standard requirements, the overall format of the standards, the definitions used and the implementation plan.**
	11/16 - 11/28/2011	SDT Members Prepare for Industry Webinar on CIP V5 Standards
WEBINAR	**11/29/2011**	**Industry Webinar as outreach to present concepts and schedule for Version 5 CIP-003 through CIP-011 Standards**

Meeting Location	Dates	Meeting Objective
Web Conference	**11/30 - 12/1/2011**	**Drafting Team Meeting to review Webinar questions and comments**
	12/20 - 12/21/ 2011	NERC Staff Prepares Industry Comments and Ballot Comments Received for Review by SDT
Review Comments	12/22/2011 - 1/23/2012	Review formal comments and concurrent ballot comments. NERC will prepare initial draft responses to comments for SDT consideration. SDT to begin update of standards text based on feedback received through industry comments and ballot comments.
ERCOT (Taylor, TX)	**1/24 - 1/26/2012**	**Drafting Team Meeting to review initial responses to comments, prepare additional responses to formal comments and ballot comments, and continue to update text of standards**
Interim	1/27 - 2/10/2012	Drafting Team prepares updates to the CIP standards text based on feedback from 45-day comment and ballot period
Interim	2/13 - 2/20/2012	Continue to review industry comments and incorporate changes into the text of the standards Revise standards for re-posting for 30-day comment and ballot period
APS (Phoenix, AZ)	**2/21 - 2/23/2012**	**Drafting Team Meeting to finalize & approve responses to formal comments and finalize standards documents for Quality Review. SDT to prepare documents for NERC QR**
NERC Quality Review	2/24 –3/19/2012	NERC Quality Review of Responses to Industry Comments from 45-day comment & ballot period. Quality Review of related updates to the CIP standards
Interim	3/12 - 3/19/2012	SDT updates standards and all documentation based on QR and prepares for posting for 30-day comment & ballot period

Meeting Location	Dates	Meeting Objective
WEB Conference	**3/20 - 3/21/2012**	**SDT Meeting to consider QR changes made to the standards and finalize standards for 30-day formal comments and successive ballot posting**
Interim	3/22 - 3/23/2012	NERC Prepares Documents for Successive Ballot
POST Responses to Comments	3/26/2012	Post responses to 45-day formal comments with concurrent ballot comments
Comment & Ballot	3/26 - 4/27/2012	30-day Posting of CIP Standards for comments with successive ballot
Interim	3/26 - 4/25/2012	Begin preparation of FERC filing documentation
Interim	4/30 - 5/1/2012	NERC Staff Prepares Industry Comments and Ballot Comments Received for Review by SDT
Interim	5/2 - 5/22/2012	Subteam meetings to prepare responses to successive ballot comments and revise text of CIP Standards, as necessary
Location (??)	**5/22 - 5/24/2012**	**Drafting Team Meeting to finalize responses to comments and prepare revisions to CIP Standards for recirculation ballot (10-days)**
NERC Quality Review	5/25 - 6/8/2012	NERC Quality Review of Responses to Industry Comments from 30-day comment & ballot period Quality Review of related updates to the CIP standards
Post for Ballot	6/11/2012	Post for recirculation ballot
Interim	6/11- 6/22/2012	Recirculation Ballot
Finalize Standards	6/25 - 6/29/2012	Finalize CIP standards text for approval by NERC BOT

Appendix 5: Project 2008-06 CSO 706 Needs, Goals, and Objectives

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.

Appendix 6: CIP Standards Development Overview

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CIP Standards Development Overview

CSSDTO706

Meeting with Industry Representative

August 16 – 18 – NERC Atlanta Office

to ensure
the reliability of the
bulk power system

Appendix 7: Meeting Evaluation Summary – Raw Data

Question 1

How would you rate the overall meeting in accomplishing the necessary objectives?

Average	3.5/4	**Last Month**	3.2/4

Comments   Trades Association input helpful in mid-course correction to wording

I had hoped that EEI staff would have participated.

Question 2

How would you rate the effectiveness of the chair/vice chair?

Average	3.7/4	**Last Month**	3.2/4

Comments   Let members bicker a bit too much first day but contained the next day, so ok

Question 3

How would you rate the effectiveness of distributed agenda and meeting materials prior to this meeting?

Average	3.8/4	**Last Month**	3.5/4

Comments   NONE

Question 4

How would you rate the use of visual and audio aides for this meeting?

Average	3.3/4	**Last Month**	3.0/4

Comments   As a remote participant, I was impressed with how easy it was to follow the topics and conversations in the room.

The mic's could use some adjustment. Some were very hot. It would be helpful if the lipstick mic's also broadcasted to the speakers in the room.

The microphones acted up several times

Readytalk presentation was very slow. It had to paint frequently. Logging in again did not help.

Lipstick microphones need to be heard over sound-system - realizing this is not easily accomplished

except it's "aids" not "aides"

The audio had issues at times with significant background noise.

The audio for the telephone callers was poor.

Question 5

How would you rate the use of sub-team meetings in between face-to-face meetings

Average	3.2/4	**Last Month**	2.7/4

Comments   Progress was made but changing the focus of sub-team meetings at the last minute prevented personnel who were involved with a particular standard from participating. One meeting went from CIP-004 to CIP-007. Personnel who were involved with CIP-007 made commitments and had not planned on attending because they were not involved in CIP-004.

Full-team WebEx one-per-day appears to be more effective than small sub-teams were but two or three a day

Just sorry I can't attend those normally

Question 6

Please provide other suggested improvements or any other general comments.

Comments   Joe did an excellent job of watching out for those on the phone and giving us time to provide comments.

Sometimes the audio has back ground knocking or a warble (fluttering/breaking up/distorts) and the Chair's audio is clean..

All hope is lost, improvement is not possible. We are all doomed. It's nearly as bad as the EPA. The CAN process will override anything the standard say. Auditors and outside entities will use the Rules of Procedure, CAN Process, and Interpretation drafting teams to override the standards. They already have.

You guys are doing a great job! I find it really stimulating to attend the meetings.

I attended as an observer by webinar - the first and part of the second day only. I thought the structure - presentation followed by questions and comments - was very effective and kept the meeting on track. Seemed to be very productive. Volume of audio was much better than many past meetings. The audio seemed distorted at times. Thanks.

Need our face-to-face time for tackling core issues that are still outstanding. Having folks in a room with a whiteboard is more effective than 2 hrs on a phone call. We primarily use our meetings to just list issues and rarely solve them. We go offline, come up with a solution, and come back a month later when everyone's forgotten the context and arguments and it feels like we start over every time we read through requirements.

I think many were surprised by the tasks that NERC added to the SDT list on Thursday. I am of the opinion that this will extend the SDT efforts at least another month.

NERC office is a good location for a meeting.

Need more discussion time during meeting.

Well done!

Appendix 8: Webinar Agenda

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Agenda
Project 2008-06 Cyber Security Order 706 - Industry Webinar

August 24, 2011 | 11:00 a.m. - 12:30 p.m. ET
Meeting Location: Industry Webinar
Dial-in: 1.800.698.9012 | Access Code: 8816510 | Broadcast Audio: 234090

Time	Item
11:00 – 11:05 a.m.	Welcome and Opening Remarks
11:05 – 11:15 a.m.	Cyber Security Order 706 Drafting Team Schedule Update
11:15 – 11:55 a.m.	CIP-002 to CIP-011 Version 5 Revisions
11:55 a.m. – 12:00 p.m.	Implementation Plan
12:00 – 12:30 p.m.	Questions and Answers
12:30 p.m.	Adjourn

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Appendix 9: Action Items

Deliverable	Current State	Approach	Responsible	Due Date
CIP-002 through 011 Requirements and Measures	Addressing auditor comments and issues raised during field asset walk-through	Continue focusing on improving requirements language through August in interim meetings	All	Sep. 2nd
VRFs/VSLs	Not started	Move version 4 VRFs/VSLs to version 5 standards with terminology modified for sub-teams to review	Joe Bucciero	Sep. 2nd (Insertion) Sep. 16th (Review)
Implementation Plan	In progress	Review draft implementation plan during August meeting	Implementation Plan Sub-Team	August 18th
Version 4 Mapping	In progress	Sub-teams to make version 4 mapping and change justification current	All	Sep. 16th
FERC Directives Response	In progress	Update FERC Directives Response document based on change rationale	Steven Noess/Scott Mix/Philip Huff	Sep. 16th
Guidance and Rationale	In progress	Sub-teams to make rationale and guidance current	All	Sep. 16th
Comment Form	Not started		Joe Bucciero/ John Lim	Sep. 16th
CIP-010 & 011 Informal Comment Response Summary	In progress	Sub-teams to make informal comment response summary current	All	Sep. 16th
CIP-005 Urgent Action Issues	In progress	Informal comment response summary	Christine Hasha	Sep. 16th
Time Horizons	Not started		Subteam Leads/Christine Hasha	Sept. 16th
List of TFE places? (For filing)				