



NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL

Princeton Forrestal Village, 116-390 Village Boulevard, Princeton, New Jersey 08540-5731

Critical Infrastructure Protection Committee (CIPC)

November 11–12, 2004
Kansas City, Missouri

Minutes

This meeting's agenda was announced via email dated October 29, 2004. A quorum was present for all business. The NERC Antitrust Compliance Guidelines were read. Member proxies were announced.

Attendees

An attendance list is attached (**Exhibit A**). Formal proxies are noted thereon.

Presentations and Documents

The following materials are posted on the CIPC open or private files section of the NERC Internet site (except those with no further distribution).

File CIPC Confidentiality definitions:

1. Public Release: Publicly available (posting on open CIPC Internet site).
2. Electricity Sector Only: Available to CIPC members, alternates, and associates for their use including distribution at their discretion to NERC regions and Electricity Sector associations but with no further distribution (posting on CIPC Internet private files site).
3. CIPC Only: Available to CIPC members, alternates, and associates for their use but with no further distribution (posting on CIPC Internet private files site).
4. No Distribution: No further availability (will not be posted).

Topic	Presenter	Availability
CIPC Executive Committee Update	Stuart Brindley	1
Electricity Sector Information Sharing Analysis Center	Lou Leffler	1
Cyber Security Standard 1300 Update	Larry Bugh	3
Status of eMARC	Larry Bugh	3
Public Key Infrastructure for the Interchange Distribution Calculator	Larry Bugh	3
Indications, Analysis, Warnings Working Group	Larry Bugh	3
Online Collaboration Through HSIN	Julie Silberger	4
Reporting Technologies Working Group Update	Carl Eng	4

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Phone 609-452-8060 ■ Fax 609-452-9550 ■ URL www.nerc.com

Topic	Presenter	Availability
Risk Assessment Methodologies for Use in the Electrical Utility Industry	Bryan McMillan	3
NERC CIPC SGWG Roadmap to 2006	Seiki Harada	3
Threat Alert Document Revisions	Lyman Shaffer	3
Control Systems Security Working Group: Report from Idaho Falls Meeting and 2004 Work Plan Scorecard	Scott Mix	2
Critical Spares Task Force Report	Mike Innocenzo	3
Public Safety Emergency Preparedness Canada	Elizabeth Rhodenizer	3
U.S. Department of Energy	Ken Friedman	2
National Infrastructure Coordinating Center	Dave Papas	3
Silver Links Exercise	Dave Baumken	4

Future Meetings

1. Thursday (8 a.m. to 5 p.m.) – Friday (8 a.m. to noon), March 17–18, 2005; Long Beach, CA (coupled with NERC Standing Committees).
2. Thursday (8 a.m. to 5 p.m.) – Friday (8 a.m. to noon), June 9–10, 2005; Washington, D.C. (possibly coupled with Department of Homeland Security cleared briefing).
3. Thursday (8 a.m. to 5 p.m.) – Friday (8 a.m. to noon), September 29–30, 2005; Denver, CO (coupled with AGA, EEI Security Committees).
4. Thursday (8 a.m. to 5 p.m.) – Friday (8 a.m. to noon), December 8–9, 2005; St Petersburg, FL (coupled with NERC Standing Committees).
5. Working group and task force meetings will be conducted at times adjoining CIPC meetings as appropriate.
6. Security briefing conference calls will be conducted on first and third Fridays each month and as conditions require.
7. Activity conference calls will be conducted as required.

Actions by Motion

The following actions were taken at this meeting and approved by motions:

Motion 1: Moved: Bob Beahm; seconded; Action: passed, no dissenting votes.
Approve the agenda for the November 11–12, 2005 CIPC meeting.

Motion 2: Moved: Bob Windus; seconded; Action: passed, no dissenting votes.
Approve the minutes of the September 16, 2004 Webex/conference call, draft-2 as submitted.

Motion 3: Moved: Barry Lawson; seconded; Action: passed, no dissenting votes.
The CIPC recognizes the importance of the IDC to grid reliability and the need for secure access to the IDC. The CIPC believes the authentication of user access to the IDC can be protected by the use of a server-side SSL certificate.

Motion 4: Moved: Spare Equipment Task Force; Action: passed, no dissenting votes.
Approve the Spare Equipment Database Policy as modified.

Motion 5: Moved: Spare Equipment Task Force; Action: passed, no dissenting votes.
Approve the Spare Equipment Database Procedure.

Follow-Up Actions

1. Consider CIPC involvement in further NERC Functional Model discussions.
2. Consider CIP inclusion in future Readiness Audits.
3. Provide some discussion with the Interchange Distribution Calculator Working Group on cyber security.
4. CIPC members, alternates, and associates are requested to reach out to their constituencies and encourage attendance at the Cyber Security Standard workshops.
5. CIPC members, alternates, and associates are requested to affirm to Seiki Harada their intention to participate with the Standards and Guidelines Working Group.
6. All CIPC working groups and task forces will update the work plans and participation for 2005.
7. Revised Threat Alert Level documentation will be presented at the March 2005 CIPC meeting.
8. Paul Carrier will pursue criteria for military air transport of utility vehicles under emergency conditions (such as hurricanes).
9. The CIP work requires definition regarding outreach to ES distribution and nuclear (via Nuclear Regulatory Commission and Nuclear Energy Institute).
10. The CIP effort should be considered for further inclusion of Alaska and Hawaii.

CIPC Chairman's Report

Chairman Brindley reported on the October 15, 2004 NERC Board of Trustees meeting. The board approved the Security Guideline: Physical Security Substations. During discussion of the Cyber Security Standard 1300, board members expressed concern for the expected development time, given that Standard 1200 is currently in place. It was noted that there are substantial additions included in Standard 1300 and that the goal is to remain on track so that there is no gap in timing between the ending of Standard 1200 on August 13, 2005 and the approval and adoption of Standard 1300.

CIPC discussed the need for clarity on the continued use and development of security guidelines (and other NERC documents, such as Operating Committee reference documents). Security guidelines are essential to the work of CIPC. The NERC Technical Steering Committee is working on this issue.

Stuart Brindley, Larry Brown, Michael Assante, and Jeff Dagle will attend the Quadra-Lateral CIP meeting in Australia (November 2004); a report will be made at the next CIPC meeting.

NERC Update

Lou Leffler reported on the meetings of the Market, Operating, and Planning Committees, November 8–10, 2004. It appears the Market Committee will recommend it be disbanded in its current form. Stuart Brindley presented a CIPC update of initiatives and threat assessment at the joint meeting of the NERC Standing Committees.

Wally Johnson reported on the Version 0 Standards. These standards are supported by the standing committees, and it is expected that the ballot will proceed for presentation to the board for adoption at its February 2005 meeting. The NERC Functional Model will undergo some further review, however this will not impede the Version 0 progress. It may be appropriate for the CIPC to be involved in the Functional Model.

NERC Readiness Audits continue. It may become appropriate for CIP considerations to be part of the future audits, e.g., the Cyber Security Standard. It was noted that compliance audits pertain to standards and are conducted by the NERC regions. Readiness audits may identify the need for new or revised Security Guidelines.

The August 14, 2003 outage investigation is continuing regarding the dynamics. The results are truly fascinating and again depict the depth and completeness of the studies. The CIPC has significant involvement in the U.S.-Canada Power System Outage Task Force outage recommendations.

CIPC Executive Committee Report – 1

Chairman Brindley raised the issue of responses to media pieces that are either wrong or contain unjustified statements. There have been several of these that are pertinent to the security of the Electricity Sector. While no definite plan has been reached, CIPC endorsed closer contact between all members of the NERC standing committees to assure consistency of message within the sector.

Several members of the Executive Committee (EC) and others met with a representative of the Department of Homeland Security (DHS). Among the topics, DHS indicated a need for the names of electricity and gas entity Chief Security Officers. DHS again expressed a need for lists of critical assets, and CIPC Executive Committee members questioned the value of such lists and is reluctant to provide such lists without assurance of information protection. It is recognized that need for such lists may exist; note the following excerpt from HSPD-7: “Consistent with this directive, the Secretary will identify, prioritize, and coordinate the protection of critical infrastructure and key resources with an emphasis on critical infrastructure and key resources that could be exploited to cause catastrophic health effects or mass casualties comparable to those from the use of a weapon of mass destruction.”

CIPC Executive Committee Report – 2

The EC met following the first CIPC meeting day. The EC agreed that the ES Sector Coordinator should write a letter to DHS recommending that the Electricity Sector Coordinating Council be comprised of the CIPC EC, and the President and CEO of NERC.

The EC will also agreed to provide direction and guidance to the ES Information Sharing Analysis Center.

Chairman Brindley will draft an update response to the August 14, 2003 Outage Recommendations related to CIPC activities.

The CIPC working groups and task forces were requested to update work plans and participants for 2005.

Electricity Sector Information Sharing Analysis Center (ESISAC)

Lou Leffler reviewed the current status of the ESISAC including current staffing, concept of operations (normal, emergency, back-up facility [under development]), and coordination with DHS National Infrastructure Coordination Center (NICC) and the other ISACs. The ISACs have identified roles under potential and occurrent emergency conditions (of malicious or natural causation).

The expected Private Sector and Government Coordinating Councils was discussed. Status of the ISAC Council was reviewed.

The National Response Plan (NRP) with Emergency Support Function (ESF) – 12 and National Infrastructure Protection Plan (NIPP) is expected to be released in the near future. NRP is essentially a renewal and incorporation of several existing plans (including the Federal Response Plan). NIPP is the “plan for a plan” to proceed toward achievement of the appropriate security for all critical infrastructures.

The existing and planned ESISAC communications systems, including emergency notification systems with NICC and other ISACs, were reviewed.

Outreach Working Group

Wally Johnson gave a brief presentation on the Outreach Working Group (OWG). There will be a security materials library review to identify documents that are in need of updating. The OWG is seeking opportunities to present information on critical infrastructure security to electricity sector organizations. A speakers bureau is being established.

Cyber Security Standard Education Team

Linda Nappier discussed the focus and status of the Cyber Security Standard 1200 workshops. The workshops will be held:

- Wednesday, January 12, 2005 in Phoenix, AZ
- Wednesday, January 26 2005 in Tampa, FL

The focus is on those topics that were most difficult to meet in the 2004 compliance review:

- Policy
- Training
- Access Control
- Electronic and physical security related to Standard 1200 will be addressed.
- The workshops will also provide a good warm up for the Standard 1300.

Reporting Technologies Working Group

Carl Eng reported on the activity of the working group related to the Homeland Security Information Network (HSIN). Several pilot evaluation groups are active, representing various security disciplines. There has been substantial progress; issues and details have been identified and are being pursued.

Julie Silberger displayed the current Electricity Sector HSIN portal and received comments from CIPC.

Standards and Guidelines Working Group

Seiki Harada presented the plan of the working group to review NERC CIP related documents for relevancy, recency, and referential integrity; a listing of all documents will be developed. The working group will establish and maintain contact with other CIPC working groups and NERC committees to establish need for new security guidelines.

The working group will develop a process for coordination with groups that are revising existing or developing new security guidelines. This will assure content and format consistency with all documents.

NERC is establishing a common understanding of all formal documents including standards, reliability (security) guidelines, white papers, and reference documents.

Threat Alert System and Physical Response Guidelines for the Electricity Sector

Lyman Shaffer presented on the work he is doing to bring the Security Guideline: Threat Response up to date with corrections and to properly systematize them within the body of security guidelines. The system of five levels will be maintained. The revised documentation will be available for the March 2005 CIPC meeting.

Cyber Security Standard 1300

Larry Bugh presented on the status of the Standard 1300 that will replace the Standard 1200. The urgent action Standard 1200 will cease to be a standard in August 2005. The Standard 1300 Drafting Team has posted draft – 1 and has received many comments; these will be addressed by the team. Some areas of question deal with clarity on what cyber systems are included; this standard significantly extends the Standard 1200. The Risk Assessment Working Group paper (expected by the March 2005 CIPC meeting) will help provide guidance. In any event, the standard will apply to those facilities deemed critical by the owners/operators. CIPC assistance in developing definitiveness to comments may be valuable to the drafting team.

Public Key Infrastructure (PKI)

Larry Bugh presented on the status of the Energy Market Access and Reliability Certificates (eMARC). The PKI Task Force is working with the ISO-RTO Council and the North American Energy Standards Board to resolve issues and finalize the path forward.

The Reliability Coordinators Working Group requested comments from CIPC on the proposal to include a PKI for the Interchange Distribution Calculator (IDC). The IDC is a very important internet protocol tool used by the reliability coordinators. Two recommendations are under consideration; one would apply server side certificates and the other would add client side certificates.

CIPC acted as indicated in Motion – 3 for application at this time to the IDC. In essence the server side certificate is recommended at this time and awaits further development of the NERC PKI to then include client side certificates. Server side certificates provide cost effective, easily implemented security. The client side will be enabled in the future, presumably using a web of trust among several certificate authorities.

CIPC suggested some contact with the IDC Working Group to discuss cyber security matters, including strong password administration.

Indications, Analysis, and Warnings Working Group (IAWWG)

Larry Bugh discussed the work of the IAWWG. The primary work products that the group will deal with in the near term are thorough reviews and updates of the IAW Standard Operating Procedure and definitions of the analysis functions. Reporting to the several federal agencies will be considered. Participation on the IAWWG is encouraged.

Risk Assessment Working Group

Ted Heller presented the status of the report titled, *Risk Assessment Methodologies for Use in the Electric Utility Industry* that is under development. This comprehensive report is expected to be a major discussion item at the March 2005 CIPC meeting. It may be useful to include a glossary of terms such as: risk, vulnerability, critical asset, and bulk system.

Control Systems Security Working Group

Scott Mix gave a presentation on the accomplishments and ongoing efforts of the group. The Security Guideline: Time Stamping of Operational Data Logs was approved by CIPC and turned over to the Operating Committee to implement as appropriate. The Security Guideline: Physical Security Substations was approved by CIPC and the Board of Trustees. A CIPC approved letter was sent to DOE commenting on the DOE document, *21 Steps to Improve Cyber Security of SCADA Networks*.

Work continues on a proposed Security Guideline: Control System Electronic Connectivity and a proposed Security Guideline: Patch Management for Control Systems.

The working group is developing a list of the Top Ten Vulnerabilities of Control Systems . This will help to assure focus on protection efforts.

Tom Flowers discussed the continuing work of the group with other sectors and organizations.

Caution was urged to stay on focus and to be wary of documents that can be misrepresented, particularly by media.

Scott was thanked for his service to the CSSWG as Chairman. CIPC welcomed Tom Flowers as incoming Chairman (subsequent to the meeting Linda Nappier was named Vice Chair).

Critical Spares Task Force (CSTF)

Mike Innocenzo presented the work of the task force. The Spare Equipment Database (SED) is being used; the number of matches with arrangements to use is confidential between the involved ES entities. The task force maintains focused on improving the database and extending its use. Extension to other equipment in the future is planned.

The task force offered motions covering SED policy and procedures. These were approved as Motions – 4 and 5. The Standards and Guidelines Working Group will review both documents to provide format consistency (with no content changes).

EPRI remains involved with development of an emergency replacement transformer project.

North American Electric Infrastructure SECURITY (NESEC) System

The NESEC project has been on hold awaiting further activity by DHS, including the dissemination of an RFI. The system has been renamed: National Electric Grid Monitoring System (NEGMS). CIPC will coordinate with the NERC Operating Committee's Reliability Coordinators Working Group, which is identifying requirements for enhancements to the Reliability Coordinators Information System (RCIS) that may meet most or all of what DHS expects to achieve with NEGMS.

Department of Public Safety and Emergency Preparedness (PSEPC)

Kara Yorke discussed improving communications between PSEPC, DHS, and ESISAC. Elizabeth Rhodenizer is working with the U.S.-Canada Power System Outage Task Force on the August 14, 2003 outage recommendations as applicable to the work of CIPC.

Department of Energy Office of Energy Assurance (DOE-OEA) and R&D

Ken Friedman reported that DOE is working to create a common agenda for the work being done by the governments and industry. He recognized the work being done by CIPC. DOE has developed an energy visualization concept that was used during the hurricanes to provide emergency operations guidance. A proposed lab exercise in spring 2005 may involve NERC. The National Infrastructure Protection Plan (NIPP) is expected to be presented to the President of the United States in December 2004. The total plan is some 2000 pages, of which 130 are devoted to energy. Ken stated that the ES is at the cutting edge and mentioned the sector involvement with the Homeland Security Information System (HSIN). The ES comments on the NIPP (invited in accordance with FACA rules) have been taken seriously in the development of the plan. Essentially the plan is a strategy for the path forward in infrastructure security. DOE is participating in the pilot plan for the Program for Critical Infrastructure Information (PCII). DOE will only request information from DHS that is needed for DOE activities.

Policy issues related to the NIPP include delineation between the NIPP and other government plans, the need for methodology to optimize outreach, and recognition of stakeholder issues. The means interaction with stakeholders within FACA rules must be clarified; possibly use voluntary agreements; possibly with and through CIPC.

Ken indicated a need for metrics to identify, for example “medium to high consequence energy assets” for application of protection programs. The CIP work needs unambiguous definitions.

Ken mentioned the desirability to provide a communications channel, perhaps through the ESISAC to ES executives (similar to the Financial Services ISAC).

Infrastructure Coordination Division (ICD), Department of Homeland Security

Paul Carrier reported on the current status of US clearances for ES personnel. Several new clearances are in process. Most DOE held clearances have been, or will be, transferred to the DHS. DHS is developing the clearance handling process; this will include training (possibly via the internet). For now holders of US clearances are advised to notify the clearance officer of any anticipated foreign travel (business or pleasure) and any contacts made to them by others for critical information. The DHS clearance officer is Michaela Murray: 703-235-5318; michaela.murray@hq.dhs.gov

DHS is considering a cleared briefing for the energy sectors in early 2005 and in June 2005. DHS is considering offering a service to the ES that would support screening of new personnel entering critical positions within the sector.

The incident reports received by DHS from the ES are used together with information from other sectors and law enforcement to assist in making critical infrastructure assessments.

Exercises

Dave Baumken presented the concepts of the planned cross border exercise, Silver Links. This exercise is planned to be conducted in early December 2004.

There were learnings from the Blue Cascades – 2 exercise. While the exercise was disruptive from a cyber perspective, the larger recovery problem stemmed from physical impacts.

TOPOFF-3 (Top Officials) is under development and will be conducted in April 2005. Private sector critical infrastructures are being involved. The ES will participate; details will be forthcoming.

Exhibit A**CIPC Meeting Attendees**

November 11–12, 2004
 Kansas City, Missouri

REPR	POSITION	NAME	ORGANIZATION
APPA	Member	Mike Hyland	APPA
	Member	Sandy Brewer	Conway Corp.
CEA	Member	Dave Baumken	Hydro One
	Alternate	Seike Harada	BC Hydro
NRECA	Member	Barry Lawson	NRECA
	Alternate	Brad Hyland (proxy for Robert Richhart)	Hoosier Energy
ECAR	Member: Oper	Scott Moore	AEP
	Member: Phys	Michael Lynch	Detroit Edison
	Alternate: Cybr	Frank Dessuit	NIPSCO
ERCOT	Member: Phys	Bill Bojorquez	ERCOT
	Member: Cybr	Steve Grendel	ERCOT
	Member: Oper	Steve Myers	ERCOT
	Alternate: Cybr	Tom Flowers	CenterPoint Energy
FRCC	Member: Phys	Frank Prieto	FPL
MAAC	Member: Phys	Robert H. Beahm	BGE
	Member: Oper	Wally Johnson	PEPCO
	Member: Cybr	Tom Bowe	PJM
MAIN	Member: Cybr	Linda Nappier	Ameren Services
	Alternate: Cybr	Kurt Muehlbauer	Exelon
	Alternate: Oper	Rich Gloff (proxy for Eric Solberg)	MAIN
MAPP	Member: Cybr	Greg Fraser	Manitoba Hydro
	Member: Oper	Dave Kulisek	Omaha Public Power District
	Member: Phys	Scott McCoy	XCEL Energy
NPCC	Member: Cybr	Chuck Noble	ISO New England
	Member: Oper	Roger Lampila	New York ISO
	Alternate: Cybr	Brian Hogue	NPCC
	Alternate	Bonnie Bushnell (proxy for Ronald P. Belval)	New York ISO
SERC	Member: Oper	Carl Eng	Dominion
	Member: Phys	Bob Canada	Southern Co. Services
	Member: Cybr	Jay S. Cribb	Southern Co. Services
	Alternate: Phys	Michael Hagee	Duke Energy
	Alternate: Cybr	Dave Norton	Entergy
	Alternate: Oper	Russell Robertson	TVA
SPP	Member: Oper	Allen Klassen	Westar Energy
	Member: Phys	Larry Dolci	Great Plains Energy
	Alternate: Cybr	Joe Doetzi (proxy for Todd Thompson)	Great Plains Energy
WECC	Member: Oper	Thomas Glock	Arizona Public Service
	Member: Phys	Robert Windus	BPA

	Alternate: Phys	Lyman H. Shaffer	Pacific Gas & Electric
NERC	Secretary & Staff Coordinator	Lou Leffler	NERC
	Staff Support	Ron Niebo	NERC
	Associate	Kara Yorke	PSEPC
	Associate	Ken Keels	SERC
	Associate	Paul Carrier	DHS
	Associate	Kenneth Friedman	DOE
	Associate	Ted Heller	DOD
	Associate	Tom Kropp	EPRI
	Associate	Al Cooley	Verano
	Associate	Scott Mix	KEMA
	Associate	Bryan McMillan	PNNL
	Associate	Elizabeth Rhodenizer	PSEPC
	Associate	Roy Otterson	RCES
	Associate	Mike Ferrara	CSC
	Associate	Julie Silberger	CSC
	Associate	Josh Canary	CSC
	Associate	Ken Thomas	CSC/DHS
	Associate	Julius S. Carroll	Progress Energy
	Associate	T.C. Wilson	ASCC
	Associate	Fred Hudson	ITC
NAESB	Associate	Christopher Burden	Williams Gas Pipeline
	Associate	David Papas	DHS NICC
	Associate	Bipin Patel	Technical consulting Services
DOD	Associate	Ronald Hebert	DOD