



NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL

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

CRITICAL INFRASTRUCTURE PROTECTION COMMITTEE (CIPC) MEETING

November 11, 2004 — 8 a.m. to 5 p.m.

November 12, 2004 — 8 a.m. to noon

The Westin Crown Center Hotel
One Pershing Road
Kansas City, Missouri 64108
816-474-4400

AGENDA

Thursday, November 11, 2004

- 15 minutes **1. Administrative Items**
- a. Welcome and Introductions
 - b. Logistics: NERC Antitrust Compliance Guidelines, CIPC governance, proxies
 - c. Amend agenda (**Approve**) — Stuart Brindley
 - d. June 9, 2004, CIPC meeting minutes (**Approve**) (reference material) — Lou Leffler
- 30 minutes **2. NERC Update**
- a. Board of Trustees — Stuart Brindley
 - b. Operating and Planning Committees — Lou Leffler
 - c. Standards Version - 0 and compliance programs — Wally Johnson
- 45 minutes **3. CIPC Executive Committee Initial Report**
- a. CIPC Business Plan for 2005 — Stuart Brindley
 - b. Report on CIPC EC meeting with DHS
 - c. Recommitment of CIPC members, alternates, and associates to the business plan (review again Friday)
 - d. Prioritization of blackout recommendations (reference material)
- 30 minutes **4. Electricity Sector Information Sharing Analysis Center (ESISAC)**
- a. ESISAC operational update — Lou Leffler
 - b. Sector Coordinators report
 - c. ISAC Council report

**AGENDA — CIPC Meeting
November 11–12, 2004**

5. ESISAC Subcommittee Updates

- 60 minutes a. Outreach Working Group — Wally Johnson
- Initiatives
 - Cyber Security Standard – 1200 Workshops details (reference material) — Linda Nappier
- 60 minutes b. Reporting Technologies Working Group — Carl Eng
- Homeland Security Information Network (HSIN)
- 5 minutes c. Indications, Analysis, Warnings Working Group — Larry Bugh
- 5 minutes d. NESEC update (now “National Electric Grid Monitoring System”) — Stuart Brindley

6. Security Planning Subcommittee Updates

- 45 minutes a. Standards and Guidelines Working Group — Seiki Harada
- Work Plan
 - Permanent Cyber Security Standard – 1300 — Larry Bugh
 - Revisions to the Security Guideline: Threat Response – Lyman Shaffer
- 15 minutes b. Risk Assessment Working Group — Ted Heller
- 30 minutes c. Control Systems Security Working Group
- Report on the CSSWG meeting at the INEEL — Scott Mix
 - Other initiatives
- 15 minutes d. Public Key Infrastructure Task Force — Larry Bugh
- Public Key Infrastructure for the NERC Interchange Distribution Calculator proposed (CIPC opinion requested)

7. Agency Briefings (as available)

- 15 minutes a. Public Safety and Emergency Preparedness Canada — Kara Yorke
- 30 minutes b. Department of Energy — Ken Friedman
- National Infrastructure Protection Plan
- 30 minutes c. Department of Homeland Security — Paul Carrier
- 15 minutes d. Federal Energy Regulatory Commission

Friday, November 12, 2004

- 60 minutes 6. e. Critical Spares Task Force — Michael Innocenzo
- Spare Equipment Database Policy (**Approve**) (reference material)
 - Spare Equipment Database Procedures (**Approve**) (reference material)

8. Other

- 20 minutes a. Exercises
- Silver Links – Dave Baumken
- b. Quadra-lateral conference in Australia

9. CIPC Executive Committee Meeting Report

- 60 minutes **10. Follow-up and Actions from All Briefings and Working Group/
Task Force Reports and Recommitment to the CIP Work** — All

AGENDA — CIPC Meeting November 11–12, 200

- 15 minutes **11. Future Meetings** — Lou Leffler
- a. March 17–18, 2005, Long Beach, California (coupled with NERC standing committees)
 - b. June 2005, Washington, D.C. (possibly coupled with DHS cleared briefing)
 - c. September 15–16, 2005, location to be determined (coupled with AGA, EEI, NERC standing committees)
 - d. December 8–9, 2005, St. Petersburg, Florida (coupled with NERC standing committees)
 - e. Security briefing conference calls will be conducted on the first and third Fridays each month and as conditions require
 - f. CIPC, working group, and task force conference calls will be conducted as required

Background Materials

- 1b. NERC Antitrust Compliance Guides
- 1d. Minutes of the September 16, 2004 NERC CIPC Conference Call, Draft 2
- 5a. Cyber Security Standard Workshops
- 6e1. Spare Equipment Database Policy
- 6e2. Spare Equipment Database Procedures
10. Joint Task Force Outage Recommendations and CIPC Response (to be forwarded)
 - Organization and Procedures Manual for NERC Standing Committees
< ftp://www.nerc.com/pub/sys/all_updl/docs/misc/orgproman061003.pdf >
 - Other Materials to be Forwarded as Available



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NERC ANTITRUST COMPLIANCE GUIDELINES

I. GENERAL

It is NERC's policy and practice to obey the antitrust laws and to avoid all conduct that unreasonably restrains competition. This policy requires the avoidance of any conduct that violates, or which might appear to violate, the antitrust laws. Among other things, the antitrust laws forbid any agreement between or among competitors regarding prices, availability of service, product design, terms of sale, division of markets, allocation of customers or any other activity that unreasonably restrains competition.

It is the responsibility of every NERC participant and employee who may in any way affect NERC's compliance with the antitrust laws to carry out this commitment.

Antitrust laws are complex and subject to court interpretation that can vary over time and from one court to another. The purpose of these guidelines is to alert NERC participants and employees to potential antitrust problems and to set forth policies to be followed with respect to activities that may involve antitrust considerations. In some instances, the NERC policy contained in these guidelines is stricter than the applicable antitrust laws. Any NERC participant or employee who is uncertain about the legal ramifications of a particular course of conduct or who has doubts or concerns about whether NERC's antitrust compliance policy is implicated in any situation should consult NERC's General Counsel immediately.

II. PROHIBITED ACTIVITIES

Participants in NERC activities (including those of its committees and subgroups) should refrain from the following when acting in their capacity as participants in NERC activities (e.g., at NERC meetings, conference calls and in informal discussions):

- Discussions involving pricing information, especially margin (profit) and internal cost information and participants' expectations as to their future prices or internal costs.
- Discussions of a participant's marketing strategies.
- Discussions regarding how customers and geographical areas are to be divided among competitors.
- Discussions concerning the exclusion of competitors from markets.
- Discussions concerning boycotting or group refusals to deal with competitors, vendors or suppliers.

Approved by NERC Board of Trustees
June 14, 2002

III. ACTIVITIES THAT ARE PERMITTED

From time to time decisions or actions of NERC (including those of its committees and subgroups) may have a negative impact on particular entities and thus in that sense adversely impact competition. Decisions and actions by NERC (including its committees and subgroups) should only be undertaken for the purpose of promoting and maintaining the reliability and adequacy of the bulk power system. If you do not have a legitimate purpose consistent with this objective for discussing a matter, please refrain from discussing the matter during NERC meetings and in other NERC-related communications.

You should also ensure that NERC procedures, including those set forth in NERC's Certificate of Incorporation and Bylaws are followed in conducting NERC business. Other NERC procedures that may be applicable to a particular NERC activity include the following:

- Organization Standards Process Manual
- Transitional Process for Revising Existing NERC Operating Policies and Planning Standards
- Organization and Procedures Manual for the NERC Standing Committees
- System Operator Certification Program

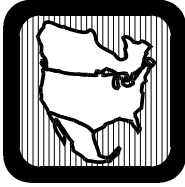
In addition, all discussions in NERC meetings and other NERC-related communications should be within the scope of mandate for or assignment to the particular NERC committee or subgroup, as well as within the scope of the published agenda for the meeting.

No decisions should be made nor any actions taken in NERC activities for the purpose of giving an industry participant or group of participants a competitive advantage over other participants. In particular, decisions with respect to setting, revising, or assessing compliance with NERC reliability standards should not be influenced by anti-competitive motivations.

Subject to the foregoing restrictions, participants in NERC activities may discuss:

- Reliability matters relating to the bulk power system, including operation and planning matters such as establishing or revising reliability standards, special operating procedures, operating transfer capabilities, and plans for new facilities.
- Matters relating to the impact of reliability standards for the bulk power system on electricity markets, and the impact of electricity market operations on the reliability of the bulk power system.
- Proposed filings or other communications with state or federal regulatory authorities or other governmental entities.
- Matters relating to the internal governance, management and operation of NERC, such as nominations for vacant committee positions, budgeting and assessments, and employment matters; and procedural matters such as planning and scheduling meetings.

Any other matters that do not clearly fall within these guidelines should be reviewed with NERC's General Counsel before being discussed.



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CRITICAL INFRASTRUCTURE PROTECTION COMMITTEE (CIPC) MEETING MINUTES

September 16, 2004
Conference Call/WebEx

Draft-2

This meeting's agenda was announced via email dated September 13, 2004, (following cancellation of the September 16–17, 2004, meeting). A quorum was present for all business. The NERC Antitrust Compliance Guidelines were read. Member proxies were announced.

Attendees

Refer to attachment to these minutes. 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:
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
HSIN (Homeland Security Information System) Update – Electricity Sector	Julie Silberger Carl Eng	2

Future Meetings

1. Thursday (8 a.m. to 5 p.m.) – Friday (8 a.m. to noon), November 11–12, 2004; Kansas City, Missouri, (coupled with NERC standing committees).
2. Thursday (8 a.m. to 5 p.m.) – Friday (8 a.m. to noon), March 17–18, 2005; Long Beach, California, (coupled with NERC standing committees).
3. (Date to be determined) early June 2005; Washington, D.C., (possibly coupled with Department of Homeland Security (DHS) cleared briefing).
4. Thursday (8 a.m. to 5 p.m.) – Friday (8 a.m. to noon), September 15–16, 2005; location to be determined, (coupled with AGA, EEI, NERC standing committees).

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

5. Thursday (8 a.m. to 5 p.m.) – Friday (8 a.m. to noon); December 8–9, 2005; St. Petersburg, Florida, (coupled with NERC standing committees).
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 minutes of the June 9, 2004, meeting, draft-2 as submitted.

Motion 2: Moved: Linda Nappier; seconded; Action: passed, no dissenting votes.
Approve the Cyber Security Standard Education Team plan forward including two initial workshops.

Motion 3: Moved: Scott Moore; seconded; Action: passed, no dissenting votes.
Approve the proposed definition for the term “Critical Asset” as proposed by the Control Systems Security Working Group and the Risk Assessment Working Group. This revised definition supercedes the earlier definition and will be used in NERC documents.

Motion 4: Moved: Tom Flowers; seconded; Action: passed, no dissenting votes.
Approve the Security Guideline: Physical Security – Substations, version 0.6, as modified at this meeting, for submittal to the NERC Board of Trustees.

Motion 5: Moved: Linda Nappier; seconded; Action: passed, no dissenting votes.
Approve the NERC recommendations to the document “21 Steps to Improve Cyber Security of SCADA Networks” for submittal to the Department of Energy (DOE), through the president of NERC.

Follow-Up Actions

1. Participation in the development of course content for the Cyber Security Education Workshops is requested.
2. Participation in the HSIN development pilot project is requested. Contact Lynn Costantini or Carl Eng by September 23, 2004.
3. CIPC members, alternates, and Electricity Sector associates are encouraged to assure that those personnel involved in security participate with the ESISAC. Contact ESISAC staff (609-452-1422).
4. The Critical Spares Working Group will present a revised work plan by mid October 2004.
5. A final report on the EnerNex cyber survey conducted for the DHS will be requested.
6. Participants in the conference call/WebEx meeting are encouraged to submit comments regarding value of this approach for some activity and improvements that can be made.

(Numbers following topic are those in the meeting agenda.)

NERC Update (2)

CIPC Executive Committee Report (3)

(Refer to presentation: CIPC Executive Committee Update.)

October 28, 2004; Draft-2

2

CIPC Confidentiality: Public Release

Stuart Brindley discussed his meeting with the NERC Board of Trustees, their support of the work and recognition for the efforts required by participants on the NERC committees, subcommittees, working groups, and task forces.

John Maguire was thanked for his leadership of the Standards and Guidelines Working Group; due to work commitments, he will step down from the chair of the group. Seiki Harada will assume the chair role.

The CIPC Work Flow - Security Guidelines as described in the presentation will be reviewed by the Security and Guidelines Working Group for discussion at the CIPC meeting in November 2004.

Stuart suggested that the Outreach Working Group consider developing a media awareness product that describes the CIPC work.

Interdependencies exercises are being developed for a cross-border exercise to be named Silver Links. There are learnings from the Blue Cascades exercises that will be used.

Outreach Working Group (4a)

Wally Johnson and Linda Nappier presented the work of the Cyber Security Standard Education Team. The proposed plan was approved (Motion-2). Refer to the team report. Help in establishing the materials for the initial two workshops (with primary focus on the 1200 Standard) is requested. Requests have been sent to the CIPC and will be followed up.

Reporting Technologies Working Group (4b)

(Refer to presentation: HSIN [Homeland Security Information System] Update – Electricity Sector.) Carl Eng, Julie Silberger, and Lynn Costantini presented the status of the HSIN adaptation to the Electricity Sector. The existing CIP Information System will be included in HSIN. There will be rules and use procedures. The stage-2 and 3 reporting will be included. DOE Form-417 reports may be included with the goal of accumulating reporting data in one place with the understanding that reports will be routed to intended recipients only and in their own prescribed format. The goal is to reduce work load and ensure consistency and timeliness of information sharing.

Future improvements in reporting envisioned by the Reporting Technologies Working Group, the Indications, Analysis, Warnings Working Group, and the Outreach Working Group will be considered for inclusion in HSIN.

A pilot user group is being established. Operations are pretty well covered at this time; participants from Physical Security and Cyber Security are encouraged to join this effort. Contact Lynn Costantini or Carl Eng by September 23, 2004.

ESISAC (4c)

Lou Leffler reported on the recent activities of the ESISAC related to the participation with other ISACs and several government agencies regarding situational awareness related to the hurricanes. The ESISAC has established Concept of Operations for normal and emergency conditions. Those not participating in the CIP Information System (CIPIS) were encouraged to contact ESISAC Staff.

Standards and Guidelines Working Group (5a)

Lynn Costantini updated CIPC on the status of the Cyber Security Standard 1300. The standard drafting team has worked hard to assure that the initial draft was posted on schedule, September 15, 2004, at:

<https://www.nerc.net/standards/ReliabilityStandards.aspx?tabindex=2&tabid=14>

In addition to the draft standard there is a compilation of FAQs that are intended to provide the rationale for standard wording. Standard 1300 is similar to Standard 1200 with expanded scope.

Risk Assessment Working Group (5b)

Ted Heller reported for the working group.

The definition of “Critical Asset” proposed by both the Control Systems Security Working Group and the Risk Assessment Working Group was approved (Motion-3) as:

“Those facilities, systems, and equipment which, if destroyed, damaged, degraded, or otherwise rendered unavailable, would have a significant impact on the ability to serve large quantities of customers for an extended period of time, would have a detrimental impact on the reliability or operability of the electric grid, or would cause significant risk to public health and safety.”

The intent is for asset owners to make their own determination of those assets deemed critical without further specificity at this level. The definition will be used in NERC documents, including security standards and security guidelines. An overall NERC standards glossary will be developed.

Control Systems Security Working Group (5c)

Tom Flowers presented the proposed Security Guideline: Physical Security – Substations. This was approved (Motion-4) after considerable discussion and some modifications. The version 0.7 will be prepared and presented to the NERC Board of Trustees for approval. This security guideline includes the definition of “Critical Asset” passed by the CIPC.

Linda Nappier presented the revised comments to the DOE on the document “21 Steps to Improve Cyber Security of SCADA Networks.” This was approved (Motion-5) for submittal by the president of NERC to the DOE.

Linda Nappier is seeking comments from the CIPC on the proposed Security Guideline: Patch Management.

Critical Spares Task Force (5d)

Michehl Gent, president of NERC, discussed his recent meeting with the Edison Electric Institute CEOs. In dealing with threats to the Electricity Sector, the CEOs are strongly encouraging substantial increased emphasis on the critical spares project. The database will be enhanced and expanded to other equipment; more participation will be sought; policy and process will be defined. Movement beyond

the original scope of the database to development of plans for a critical spares pool will proceed. There will be increased coordination with EPRI, EEI, and government agencies.

Mike Innocenzo, task force chair, will present a revised work plan by early October 2004.

Department of Public Safety and Emergency Preparedness (PSEPC) (6a)

Elizabeth Rhodenizer discussed the progress report by the joint task force on the Blackout Recommendations. The report is posted at:

<http://www.nerc.com/~filez/blackout.html>

The task force wants to collaborate with CIPC and its groups to develop the security-related recommendations. Participation is very important.

Department of Energy Office of Energy Assurance (DOE-OEA) and R&D (6b)

Hank Kenchington reported on the National Infrastructure Protection Plan (NIPP). He thanked those on CIPC who provided individual comments and input to the plan. Final approval, by the government via the Department of Homeland Security, of the NIPP is expected by October 29, 2004. Comments were generally consistent; many dealt with information sharing confidentiality.

A National Association of Regulatory Utility Commissioners (NARUC) Ad Hoc Committee on Critical Infrastructure report: "Model State Protocols for Critical Infrastructure Protection Cost Recovery," July 2004 was cited. This is available at:

<http://www.naruc.org/associations/1773/files/costrecovery0804.pdf>

The Idaho National Environment and Engineering Laboratory control systems test bed was formally dedicated in August 2004. The Control Systems Security Working Group is engaged.

Infrastructure Coordination Division (ICD), Dept. of Homeland Security (DHS) (6c)

Paul Carrier reported on the status of U.S. government security clearances for ES personnel that are currently under review. Paul will determine the availability of a document on how clearances are to be treated by the holders. For example, any foreign travel (including to Canada) must be reported to the clearance holding officer.

The Interagency Security Plan for National Security Special Events (NSSE) is being implemented.

The DHS is in the planning stages for a cleared briefing for Energy Sector (electricity, gas, oil) in December 2004. These briefings will likely be conducted two times each year.

CIPAG Meeting Attendees

16 September 2004

(P=Proxy)

REPR	VOTE	POSITION	NAME	ORGANIZATION
APPA	P	Alternate	James Strange	APPA
CEA	V	Member Chair Exec Cmte	Stuart Brindley	IMO
	V	Member	Dave Baumken	Hydro ONE
NRECA	V	Member	Bob Richhart	Hoosier Energy
	V	Member	Barry Lawson	NRECA
ECAR	V	Member: Phys	Michael Lynch	Detroit Edison
	V	Member: Oper	Scott Moore	AEP
ERCOT	V	Member: Phys	Bill Bojorquez	ERCOT
	V	Member: Cybr	Steve Grendel	ERCOT
	P	Member: Oper	John Adams	ERCOT
		Alternate: Cybr	Tom Flowers	CenterPoint Energy
FRCC	V	Member: Cybr	Brian Malfant	FRCC
	V	Member: Phys	Frank Prieto	FPL
MAAC	V	Member: Phys	Robert H. Beahm	BGE
	V	Member: Oper	Wally Johnson	PEPCO
MAIN	V	Member: Phys Vice Chair Exec Cmte	Pat Laird	Exelon
	V	Member: Oper	Eric Solberg	ATC
	V	Member: Cybr	Linda Nappier	Ameren Services
MAPP	V	Member: Cybr	Greg Fraser	Manitoba Hydro
	V	Member: Oper	Dave Kulisek	Omaha Public Power District
NPCC	V	Member: Cybr	Chuck Noble	ISO New England
	V	Member: Oper	Roger Lampila	New York ISO
	P	Alternate: Phys	Bruce Metruck	New York PA
SERC	V	Member: Oper	Carl Eng	Dominion
SPP	V	Member: Oper	Allen Klassen	Westar Energy
	V	Member: Phys	Larry Dolci	Great Plains Energy
WECC	V	Member: Phys	Bob Windus	BPA
NERC		President	Mike Gent	NERC
		Secretary Exec Cmte	Lou Leffler	NERC
		Staff Support	Lyn Costantini	NERC
		Staff Support	Ron Niebo	NERC
		Staff Support	Bipin Patel	NERC
-----		Associate	Julie Silberger	DHS-CSC
		Associate	Paul Carrier	DHS-MITRE
		Associate	Ted Heller	DPO-MA
		Associate	Mike Innocenzo	Exelon
		Associate	Hank Kenchington	DOE-OEA
		Associate	Elizabeth Rhodenizer	PSEPC
		Associate	John Pavek	RUS



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Cyber Security Urgent Action 1200 Standard Compliance Workshop

Introduction

NERC is sponsoring two workshops to help promote full compliance with the cyber security standards and continue to move the Electricity Sector forward to be prepared in the area of cyber security protection.

Earlier this year the NERC Manager of Compliance Review recommended a series of workshops for all applicable operating entities to promote full compliance with the cyber security standard.

Also, in response to the August 14, 2003, Outage Recommendations of the U.S.-Canada Power System Outage Task Force, Recommendation 32 states that “there is a need to communicate and enforce these standards by providing the industry with recommended implementation guidance.”

The proposed focus audience for this education effort will be those in the Electricity Sector entities who are responsible for implementation of and compliance with the Cyber Security Standard. Additionally, anyone who has physical or cyber security responsibilities in the functional entities that will be affected by the proposed 1300 permanent standard will benefit from the materials covered in this workshop. Two dates and locations have been selected to allow you to choose the most convenient schedule.

The Schedule

Date (2005)*	Location
January 12	Phoenix, AZ
January 26	Tampa, FL

*Other dates and locations may be added as needed.

The hotel arrangements are being finalized and will be posted at the following website:

<http://www/meetings/>

Agenda

8:30–9:30 a.m.

- Welcome — Introduction, What to Expect from the Workshop
- A Management Overview (messages that YOU can take home to communicate to your senior management)

9:30–9:45 a.m. **BREAK**

9:45–10:15 a.m.

- Status Update on Permanent Cyber Security Standard 1300

10:15–11:15 a.m.

- Developing and Implementing a Roles-Based Cyber Security Policy for Your Organization

11:15 a.m.–noon

- Security Training for Your Employees – short summary of take-home materials and binder

Noon–1 p.m. **LUNCH**

- Luncheon Speaker from NERC CCMC

1–2 p.m.

- Access Control — Protecting Your Physical and Electronic Perimeters

2–2:15 p.m. **BREAK**

2:15–3:15 p.m.

- What to Expect in a Compliance Audit — walk-through example by NERC compliance

3:15–3:30 p.m.

- Overall Q&A, Conclusion

Cyber Security Urgent Action 1200 Standard Compliance Workshop

Registration Process

The workshop registration fee is \$75 per person. This price includes meeting facilities, materials, and refreshments. **Please pre-register** — registration at the door is \$125. NERC will accept cancellations and substitutions one week prior to the session. Please check the appropriate box below.

January 12

Cut-off date for registration is

January 5, 2005

Phoenix, Arizona

January 26

Cut-off date for registration is

January 19, 2005

Tampa, Florida

Name:

Title:

Organization:

Address:

City/State/Zip:

Telephone:

E-mail Address:

Method of Payment:

Check — *Make checks payable to NERC*

Visa MasterCard (*Please note we do not accept American Express or Discover*)

Card Number:

Name of cardholder:

Expiration date:

Fax credit card payments to: (609) 452-9550

Mail check payments and registration form to:

NERC

Cyber Security Urgent Action 1200 Standard — Compliance Workshop

116-390 Village Boulevard

Princeton, New Jersey 08540

Please pre-register!
Attire is business casual.



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Spare Equipment Database Policy

INTRODUCTION

NERC has developed and maintained a spare transformer database since 1989 to assist the electric industry in locating EHV transformers in cases of national emergencies and “normal” system emergencies. The scope of the database has been recently expanded to include other critical HV and substation transformers and termed Spare Equipment Database (SED) with the intent that other critical equipment, such as circuit breakers, CTs, PTs, etc. could be added later if deemed necessary.

POLICY STATEMENT

- ❖ The database is established and maintained by NERC to help participants identify spare transformers for system restoration including the following events:
 - national emergencies
 - “normal” emergencies
 - other natural disasters

- ❖ Any utility participating in NERC Regional Reliability Council may take part in the functions of SED.

- ❖ NERC encourages utilities to provide information on spare transformers as follows:
 - All generator step-up units (GSU’s)
 - Auto and power transformers, 230kV and higher

NOTE: Consideration should also be given to reporting spare power transformers rated 50 MVA/69 kV and higher and all mobile transformers.

- ❖ SED is operated as a confidential database for the participating utilities of the NERC Regional Reliability Councils. Participating utilities will have access to their equipment data only and thereby they can edit it as needs arise. Only NERC staff has access to all of the equipment data entered in to the SED and all of the inquiries that request searches of the database.
- ❖ By listing a spare in the database does not mean that the participating utility has to release that spare. All decisions on the release of spares must be mutually agreed to by both, the utility that listed the spare and the utility requesting that spare.

CSTF – NERC IS ALSO REVIEWING WITH ITS LEGAL COUNSEL THE POSSIBILITY OF ADDING A GENERAL DISCLOSURE STATEMENT REGARDING THE ACCURACY OF THE INFORMATION NERC IS PROVIDING AND DIRECTING THE RECEIVING UTILITY TO TREAT ANY INFORMATION AS CONFIDENTIAL. THE RESPONSE IS EXPECTED LATE--OCTOBER



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Spare Equipment Database

Procedure

INTRODUCTION

The NERC Spare Equipment Database (SED) is accessible through the NERC website (<http://www.nerc.com>). This procedure document is developed to help users register and enter the database, and to provide guidance on entering equipment data, editing functions, and various links internal to the database. At present, the SED includes only spare transformers. Other critical equipment, such as circuit breakers, CTs, PTs, etc. will be added later if deemed necessary.

ACCESS TO SED

- **New users** can register with the database by accessing the NERC website (<http://www.nerc.com>) and following the steps shown below:
 - ✓ Under **NERC Fast Links**, select “**User Registration**” (currently the last listing) and <click> on **GO**. This will reveal the User Registration-Introduction page.
 - ✓ In the middle of the page is a reference for registering in the Spare Equipment Database. <Click> on “**click here**” and an SED application form will appear.
 - ✓ Enter the required data, including selecting (self-determined) a **USER NAME** and **PASSWORD**, and <click> on “**Submit Registration**” at the bottom of the application form.

Once the application is submitted a message will be sent to NERC’s SED Administrator. The Administrator will review each application and determine if that organization is eligible to participate. If so, the SED Administrator will approve the registration and notify the new user. Using the self-assigned **USER NAME** and **PASSWORD**, the user may then add, delete, or modify SED entries associated with their organization.

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

- **Existing users** may access the database by logging on to the <https://www.nerc.net/sed/> website using USER NAME and PASSWORD.

Users may then add, delete, or modify SED entries associated with the spare transformers entered in the SED.

AVAILABLE LINKS

The following links are available on each page of the database:

- **NERC Home** – NERC.com website main home page.
- **STD Home** – SED Introductory home page with Policy and Procedure documents
- **Transformer list** – List of user’s spare transformers in the database. This link allows users to add or edit spare transformer data.
- **Transformer Print list** – Printable listing of user’s spare transformers in the database
- **Contact list** – List of primary and secondary contacts for user’s spare transformers in the database. This link allows users to add or edit contact information.
- **Utility Contact list** – List of contacts in the database.
- **Comments** – E-mail communication link with NERC staff. Please use this link to enter any questions you might have regarding SED
 - **NOTE: Forgotten ID or Password** – If you have forgotten your SED ID or Password, please use the Comments link to request assistance.

DATA ENTRY

The following steps should be helpful in entering and accessing data in the database:

A. To Add Transformer Data: First Time Users

1. Upon accessing the home page on <https://www.nerc.net/sed/>, <click> on “**Transformer list**”. This will open Transformer list page with a link “Add a Transformer to the database”.
2. <Click> on “**Add a Transformer to the database**” and a page with a blank transformer data form will open.
3. Fill in appropriate spare transformer data. Also provide any unique information related to equipment application, connection, transportation, physical attributes, etc. in “Comment”. NERC encourages utilities to complete all rating information on the spare transformers entered in SED.
4. Once the data is entered, <click> on to “New” button at the bottom.
5. If data is appropriately entered, the data form with the filled-in information will appear with a note that the data has been successfully entered. Otherwise, the just filled-in data form will appear with the incorrect entry or the missing data highlighted in red. Upon the correction, <click> on to “New” button to enter the data.

B. To Add or Edit Data to the Existing List of Transformers: Existing Users

1. Upon accessing the home page on <https://www.nerc.net/sed/>, <click> on “**Transformer list**”. This will open Transformer list page with the listing of your spare transformers.
2. <Click> on “**Edit**” button of the transformer that needs editing or <click> on “**Edit**” button of any one of transformers on the listing to add a new spare transformer data and the data form for that transformer will appear on the screen.
3. Enter the data and <click> on to “**New**” button to add new spare transformer data or <click> on to “**Update**” button to edit the existing data. “**Delete**” or “**Cancel**” button can be used as applicable. If adding a new spare transformer data, follow **DATA ENTRY, A-3** instructions shown above.
4. Once the data is successfully entered, the data form with the filled-in information will appear with a note that the data has been successfully entered.

C. To Add or Edit Contact Information:

After entering the transformer data users must add contact information under “**Contact list**” for their organization. This contact information will be used to contact personnel in your organization when any of your spare transformers are needed for emergency. Follow the steps below to enter this information:

1. <Click> on “**Contact list**”. This will open Edit Contact page with the listing of primary, secondary, 24 hour, and Unknown contacts.
2. <Click> on a contact link and fill-in appropriate contact information.
3. <Click> on “**Update**” button.
4. The contact list will appear with a note that your contact has been added successfully.
5. All available contacts should be entered.
6. The contact information can be edited using “**Update**”, “**Delete**” or “**Promote**” button.

USEFUL DATA ENTRY INFORMATION

The following information should be helpful in entering spare transformer data:

- a. The needed data is generally available on nameplate, nameplate drawing, factory test report, and outline drawing for the transformer.
- b. All data blanks on the data form should be filled in. Type, phase, MVA and voltage ratings, impedance, and primary and secondary connections, however, must be included as minimum.
- c. For single phase transformers, voltage ratings as shown on the nameplate are preferred for the data entry. If three phase voltages are shown, an appropriate note should be entered in “**Comment**”. However, the designed three phase connection details for primary, secondary, and other windings should be included on the connection option window and in “**Comment**”.

- d. The data form is designed for two winding transformers with a limited data blanks for multi-winding transformers. Additional rating and related information for such transformers should be shown in “Comment”.
- e. Provide any unique information related to equipment application, connection, transportation, physical attributes, etc. in “Comment”.

SEARCHING SED

SEARCH - Any utility participating in NERC Regional Reliability Council may request a search of the SED for a replacement transformer.

- ✓ To maintain the confidentiality of the SED, NERC designated staff will perform searches to identify spare transformers meeting the rating information for the replacement.
- ✓ To initiate a search, send any search information to NERC staff at: SED-Search@nerc.com.
- ✓ To support NERC in conducting the search, the following rating information for replacement transformer and contact details must be provided:
 - **Type**
 - **Phase**
 - **Three phase connections**
 - **MVA & Voltage Ratings**
 - **Impedance and MVA base**
 - **Search requestor’ name and contact information**
- ✓ For further information regarding a search, you can also contact NERC staff at:
 - Bipin Patel – 205.317.2579
 - Ronald Niebo – 609.452.8060 PH; 609.452.9550 FAX
 - 24/7 ESISAC – 609.452.1422

RESULTS - NERC staff will respond as soon as possible in the following manner:

- By e-mail, requestor will be provided with the following information about each available spare in the database matching with the rating of the replacement transformer:

Utility:

Utility Contact Name:

Contact Number:

Contact e-mail:

Transformer Characteristics:

Phase

MVA & Voltage Ratings

Impedance

- Copies of any response will also be distributed via e-mail to each of the utility contacts to advise them of both the inquiry and the response. Again, sharing the spare information doesn't mean that the participating utility has to release the spare.
- Requestor will also be advised to give consideration to contacting used equipment supplier as an additional source for replacement transformers. (For possible contacts, see applicable trade magazines and Internet search sources.)

SED MAINTENANCE

- Users are encouraged to update their spare information as soon as changes are made in their stock of spare transformers. To facilitate general maintenance NERC will send out SED update reminders to users by e-mail at the end of April and October annually.
- A spare search drill will be conducted once a year to insure the accuracy and to determine the effectiveness of the SED.

CSTF – NERC IS ALSO REVIEWING WITH ITS LEGAL COUNSEL THE POSSIBILITY OF ADDING A GENERAL DISCLOSURE STATEMENT REGARDING THE ACCURACY OF THE INFORMATION NERC IS PROVIDING AND DIRECTING THE RECEIVING UTILITY TO TREAT ANY INFORMATION AS CONFIDENTIAL. THE RESPONSE IS EXPECTED LATE--OCTOBER