

Security Guideline for the Electricity Sector: Continuity of Business Processes and Operations Operational Functions

Preamble:

It is in the public interest for NERC to develop guidelines that are useful for improving the reliability of the Bulk Power System (BPS). Guidelines provide suggested guidance on a particular topic for use by BPS users, owners, and operators according to each entity's facts and circumstances and do not provide binding norms, establish mandatory reliability standards, or create parameters by which compliance to standards is monitored or enforced.

Introduction:

This Guideline is to provide all electricity sector organizations, regardless of their NERC registration, with concepts that should be considered when developing a continuity program. The program strives to assure continuity of business and operational functions. One outcome of the program is the development of continuity plans. Such plans represent one approach for enabling the organization to take an all-hazards approach to prepare itself for natural or man-made disasters, prevent or reduce an incident's adverse impact, and to assure effective coordinated response and recovery efforts. This guideline is not intended to contradict or limit use of programs or tools offered through other agencies or organizations.

This guideline provides a framework for identifying the concepts and steps associated with an effective operations continuity plan. While the U. S. Department of Homeland Security (DHS) Voluntary Private Sector Preparedness Accreditation and Certification Program (PS-PREP) was used as the primary source for this guideline, other methodologies are equally applicable. The "Related Documents and Links" section of this guideline contains a list of other methodologies. The use of these methodologies and guidelines (including PS-PREP) are strictly voluntary.

NOTE: Companies that are NERC Registered Entities may have additional obligations under the NERC Reliability Standards.

Scope of Application:

This guideline applies to business and operational functions, resources and facilities which are considered essential to the individual organization in fulfilling its mission of producing and/or delivering electric energy. These functions include those which are not only essential to operational continuity, but also those that are essential to support ongoing business requirements.

Guideline Details:

This guideline describes steps that an electricity sector organization should consider when developing programs and plans that will strive to ensure continuity of operations during and after an incident or crisis. Continuity of operations could include efforts for resiliency, incident response, crisis communication, resumption and recovery.

Utilities historically have extensive plans and contracts/agreements in place for the restoration of electric service to customers in response to natural disasters such as earthquakes, floods, and other weather-related emergencies. Plans should be developed to assure continuity of business and operational functions to minimize the impact from natural and man-made disasters.

Facilities and functions essential to operations should be identified by the Business Impact Analysis (BIA) and risk assessments each organization develops to support its operational continuity plans.

The essential functions that support the company's core missions include:

- Serve its customers with a reliable source of electric energy,
- Provide services that ensure the reliable operation of the energy grid and interconnection,
- Avoid losses that would create a significant risk to public health or safety.
- Ensure the health and safety of all employees and contractors.

In developing its continuity of operations plan each organization should define essential functions and assets, and identify those resources that support these functions and assets.

A risk assessment should be performed for each essential function, resource and facility to establish priorities, and to identify strategies to lower risks. Essential business and operational functions are those that must be available to avoid jeopardizing safety, regulatory, operational or financial performance of the company, among others. Essential resources and facilities support the essential functions' ability to operate, and replacements/alternatives are needed in order to effectively recover the functions following a disruption.

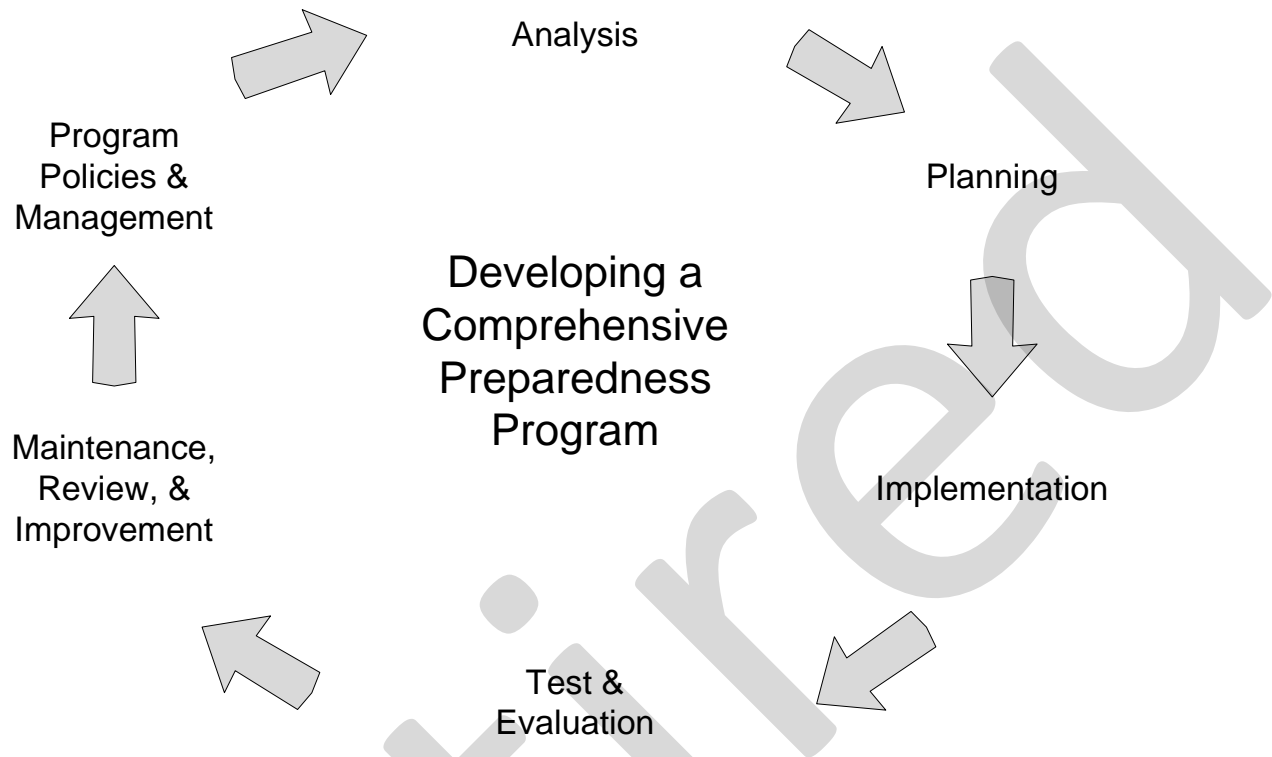


Figure 1: Typical Continuity Planning Life Cycle

The *PS-PREP Framework Guide: Electric Sector* has identified the following six key subject areas that form the basic, scalable structure of a comprehensive preparedness program. The following summary of those steps is extracted from the Framework Guide:

1. PROGRAM POLICIES AND MANAGEMENT

Top-level authorization, support, and commitment should be given to the preparedness program. An organization should:

- Develop policy, vision and mission statements;
- Devote appropriate personnel and financial resources; and
- Assign an individual (or committee in larger organizations) with appropriate authority to lead the preparedness efforts.

2. ANALYSIS

The following activities are critical for the organization to develop appropriate program goals related to (1) incident prevention and mitigation and (2) incident management and continuity:

- Evaluate legal, statutory, regulatory, industry best practices, as well as other requirements;
- Define and document the scope of the preparedness program; and
- Conduct a risk assessment and impact analysis.

3. PLANNING

The organization should develop multiple plans, each of which should have clearly defined end products, a specific schedule, and assigned responsibilities and resources. Primary Plans should exist for the following activities:

- Prevention and Mitigation,
- Incident management;

And supporting plans for:

- Resource management and logistics,
- Training,
- Testing and evaluation, and
- Records management.

4. IMPLEMENTATION

Successful implementation of preparedness programs requires the development and maintenance of a comprehensive project management and control system, which includes:

- Each of the specified projects carried out according to the plan, adhering to completion dates;
- Assurance of program-level coordination; and
- Periodic program reviews and internal audits.

5. TEST AND EVALUATION

For the purpose of quality control, a test and evaluation plan should:

- Specify a series of evaluations to examine various elements of the implementation process;
- Use dry runs to evaluate the program overall; and
- Review findings from these processes to revise plans as needed.

6. MAINTENANCE, REVIEW, AND IMPROVEMENT

The preparedness program requires routine maintenance, review, feedback, and continuous improvements. These goals can be achieved by:

- Implementing periodic formal reviews to verify adherence to program requirements and discover areas of improvement;
- Using any available post-incident evaluations, such as special analyses and reports, lessons learned, and performance evaluations; and
- Identifying program areas that require periodic maintenance, and regularly scheduling maintenance.

Entities are encouraged to review the more detailed description in the *PS-PREP Framework Guide for the Electric Sector* for additional information on each of the six steps.

Related Documents and Links:

An Approach to Action for the Electricity Sector, Version 1, NERC, June 2001,
http://www.esisac.com/publicdocs/ApproachforAction_June2001.pdf

Business Continuity Institute Good Practices Guidelines:
<http://www.thebci.org/gpg.htm>

DRI International (DRII), Business Continuity Management Program;
<https://www.drii.org/professionalprac/index.php>

Disaster Recovery Journal (DRJ); Glossary v2.0: DRJ and DRII;
<http://www.drj.com/tools/tools/glossary-2.html>

PS-Prep Framework Guide: Electric Sector Voluntary Private Sector Preparedness Accreditation and Certification Program,
Available on HSIN

Electric Sector Data Set - Companion to the PS-Prep Framework Guide
Available on HSIN

PS-PREP: 3 Adopted Standards

Note. Each adopted standard has a worksheet designed to assist any entity performing a preliminary self-assessment. The worksheets align key subject areas of a comprehensive preparedness program with specific elements of the three adopted preparedness standards.

ASIS SPC.1-2009, Organizational Resilience: Security, Preparedness, and Continuity Management Systems, Copyright 2010, American National Standards Institute. Used with permission.
<https://www.asisonline.org/guidelines/published.htm>

BS25999-2:2007, Specification for Business Continuity Management, Copyright 2007, British Standards Institution. Used with permission.
www.bsi-emea.com/BCM/Overview/index.xalter

NFPA 1600-2010, Disaster/Emergency Management and Business Continuity Programs, Copyright 2010, National Fire Protection Association. Used with permission.
www.nfpa.org/assets/files/PDF/NFPA16002010.pdf

Additional Resources:**Standards:**

CSA Z1600 – Emergency Management and Business Continuity Programs
http://shop.csa.ca/en/canada/inv/27028572008/?source=z1600_landingpageen

Security:

National Strategy for Homeland Security; Homeland Security Council; October 2007;
http://www.dhs.gov/xlibrary/assets/nat_strat_homelandsecurity_2007.pdf

NERC Security Guidelines for the Electricity Sector;
<http://esisac.com/library-guidelines.htm>

Security Guideline for the Electricity Sector — Physical Response v3.0, NERC, November 2005,
<http://esisac.com/library-guidelines.htm>

Threat Alert System and Cyber Response Guidelines for the Electricity Sector v2.0, NERC, October 2002,
<http://esisac.com/library-guidelines.htm>

Business Continuity:

American Red Cross; *Preparing Your Business for the Unthinkable*; Washington, D.C.;
<http://www.redcross.org/services/disaster/beprepared/unthinkable2.pdf>

ASIS, International; *Business Continuity Guideline: A Practical Approach for Emergency Preparedness, Crisis Management, and Disaster Recovery*; 2005;
<http://www.asisonline.org/guidelines/published.htm>

Electricity Sector Influenza Pandemic Planning, Preparation, and Response Reference Guide; NERC;
February 2006;
<http://esisac.com/library-cip-doc.htm>

Purpose of Standard Checklist Criteria for Business Recovery;
<http://www.fema.gov/business/bc.shtm>

"Business Continuity Guideline: A Practical Approach for Emergency Preparedness, Crisis Management, and Disaster Recovery," Copyright (c) 2005 by ASIS International. Used by permission. The complete guideline is available from ASIS International, 1625 Prince Street, Alexandria, Virginia 22314
<http://www.asisonline.org/guidelines/published.htm>.

Business Continuity Institute Good Practices Guidelines:
<http://www.thebci.org/gpg.htm>

Emergency Management:

Federal Emergency Management Administration (FEMA); *Emergency Management Guide for Business and Industry*, FEMA Document 141, October 1993; Washington, D.C.;
<http://www.fema.gov/business/guide/index.shtm>

Federal Emergency Management Administration (FEMA), *Standard Checklist Criteria for Business Recovery*, October 1993; Washington, D.C.,
<http://www.fema.gov/business/bc3.shtm>.

Revision History:

Date	Version Number	Reason/Comments
6/14/2002	1.0	Initial Version – <i>Continuity of Business Processes Security Guideline</i>
7/1/2007	2.0	Title and content revised to Continuity of Business Operations Security Guideline. Extensive updates and edits to make the text current and incorporated the 2006 CIPC approved format for all guidelines.
4/3/11	2.1	Completely revised and posted for initial CIPC Comment
4/5	2.15	Correction of formatting and typographical errors in initial posting
5/9	2.16	Updated based on comments received
5/12	2.17	Posting for industry Comment
8/8	2.50	Updated based on industry comments received.
8/31	2.51	Final updates based on industry comment received.
9/15	3.0	Approved by CIPC