

A. Introduction

1. **Title:** Cyber Security — Security Management Controls
2. **Number:** CIP-003-4
3. **Purpose:** Standard CIP-003-4 requires that Responsible Entities have minimum security management controls in place to protect Critical Cyber Assets. Standard CIP-003-4 should be read as part of a group of standards numbered Standards CIP-002-4 through CIP-009-4.
4. **Applicability:**
 - 4.1. Within the text of Standard CIP-003-4, “Responsible Entity” shall mean:
 - 4.1.1 Reliability Coordinator.
 - 4.1.2 Balancing Authority.
 - 4.1.3 Interchange Authority.
 - 4.1.4 Transmission Service Provider.
 - 4.1.5 Transmission Owner.
 - 4.1.6 Transmission Operator.
 - 4.1.7 Generator Owner.
 - 4.1.8 Generator Operator.
 - 4.1.9 Load Serving Entity.
 - 4.1.10 NERC.
 - 4.1.11 Regional Entity.
 - 4.2. The following are exempt from Standard CIP-003-4:
 - 4.2.1 Facilities regulated by the Canadian Nuclear Safety Commission.
 - 4.2.2 Cyber Assets associated with communication networks and data communication links between discrete Electronic Security Perimeters.
 - 4.2.3 In nuclear plants, the systems, structures, and components that are regulated by the Nuclear Regulatory Commission under a cyber security plan pursuant to 10 C.F. R. Section 73.54
 - 4.2.4 Responsible Entities that, in compliance with Standard CIP-002-4, identify that they have no Critical Cyber Assets shall only be required to comply with CIP-003-4 Requirement R2.
5. **Effective Date:** The first day of the eighth calendar quarter after applicable regulatory approvals have been received (or the Reliability Standard otherwise becomes effective the first day of the ninth calendar quarter after BOT adoption in those jurisdictions where regulatory approval is not required).

B. Requirements

- R1. Cyber Security Policy — The Responsible Entity shall document and implement a cyber security policy that represents management’s commitment and ability to secure its Critical Cyber Assets. The Responsible Entity shall, at minimum, ensure the following:

- R1.1.** The cyber security policy addresses the requirements in Standards CIP-002-4 through CIP-009-4, including provision for emergency situations.
- R1.2.** The cyber security policy is readily available to all personnel who have access to, or are responsible for, Critical Cyber Assets. (Retirement approved by FERC effective January 21, 2014.)
- R1.3.** Annual review and approval of the cyber security policy by the senior manager assigned pursuant to R2.
- R2.** Leadership — The Responsible Entity shall assign a single senior manager with overall responsibility and authority for leading and managing the entity’s implementation of, and adherence to, Standards CIP-002-4 through CIP-009-4.
 - R2.1.** The senior manager shall be identified by name, title, and date of designation.
 - R2.2.** Changes to the senior manager must be documented within thirty calendar days of the effective date.
 - R2.3.** Where allowed by Standards CIP-002-4 through CIP-009-4, the senior manager may delegate authority for specific actions to a named delegate or delegates. These delegations shall be documented in the same manner as R2.1 and R2.2, and approved by the senior manager.
 - R2.4.** The senior manager or delegate(s), shall authorize and document any exception from the requirements of the cyber security policy.
- R3.** Exceptions — Instances where the Responsible Entity cannot conform to its cyber security policy must be documented as exceptions and authorized by the senior manager or delegate(s). (Retirement approved by FERC effective January 21, 2014.)
 - R3.1.** Exceptions to the Responsible Entity’s cyber security policy must be documented within thirty days of being approved by the senior manager or delegate(s). (Retirement approved by FERC effective January 21, 2014.)
 - R3.2.** Documented exceptions to the cyber security policy must include an explanation as to why the exception is necessary and any compensating measures. (Retirement approved by FERC effective January 21, 2014.)
 - R3.3.** Authorized exceptions to the cyber security policy must be reviewed and approved annually by the senior manager or delegate(s) to ensure the exceptions are still required and valid. Such review and approval shall be documented. (Retirement approved by FERC effective January 21, 2014.)
- R4.** Information Protection — The Responsible Entity shall implement and document a program to identify, classify, and protect information associated with Critical Cyber Assets.
 - R4.1.** The Critical Cyber Asset information to be protected shall include, at a minimum and regardless of media type, operational procedures, lists as required in Standard CIP-002-4, network topology or similar diagrams, floor plans of computing centers that contain Critical Cyber Assets, equipment layouts of Critical Cyber Assets, disaster recovery plans, incident response plans, and security configuration information.
 - R4.2.** The Responsible Entity shall classify information to be protected under this program based on the sensitivity of the Critical Cyber Asset information. (Retirement approved by FERC effective January 21, 2014.)

- R4.3.** The Responsible Entity shall, at least annually, assess adherence to its Critical Cyber Asset information protection program, document the assessment results, and implement an action plan to remediate deficiencies identified during the assessment.
- R5.** Access Control — The Responsible Entity shall document and implement a program for managing access to protected Critical Cyber Asset information.
 - R5.1.** The Responsible Entity shall maintain a list of designated personnel who are responsible for authorizing logical or physical access to protected information.
 - R5.1.1.** Personnel shall be identified by name, title, and the information for which they are responsible for authorizing access.
 - R5.1.2.** The list of personnel responsible for authorizing access to protected information shall be verified at least annually.
 - R5.2.** The Responsible Entity shall review at least annually the access privileges to protected information to confirm that access privileges are correct and that they correspond with the Responsible Entity's needs and appropriate personnel roles and responsibilities.
 - R5.3.** The Responsible Entity shall assess and document at least annually the processes for controlling access privileges to protected information.
- R6.** Change Control and Configuration Management — The Responsible Entity shall establish and document a process of change control and configuration management for adding, modifying, replacing, or removing Critical Cyber Asset hardware or software, and implement supporting configuration management activities to identify, control and document all entity or vendor-related changes to hardware and software components of Critical Cyber Assets pursuant to the change control process.

C. Measures

- M1.** The Responsible Entity shall make available documentation of its cyber security policy as specified in Requirement R1. Additionally, the Responsible Entity shall demonstrate that the cyber security policy is available as specified in Requirement R1.2. (Retirement approved by FERC effective January 21, 2014.)
- M2.** The Responsible Entity shall make available documentation of the assignment of, and changes to, its leadership as specified in Requirement R2.
- M3.** The Responsible Entity shall make available documentation of the exceptions, as specified in Requirement R3. (Retirement approved by FERC effective January 21, 2014.)
- M4.** The Responsible Entity shall make available documentation of its information protection program as specified in Requirement R4.
- M5.** The Responsible Entity shall make available its access control documentation as specified in Requirement R5.
- M6.** The Responsible Entity shall make available its change control and configuration management documentation as specified in Requirement R6.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Enforcement Authority

1.2. The RE shall serve as the CEA with the following exceptions:

- 1.2.1** For entities that do not work for the Regional Entity, the Regional Entity shall serve as the Compliance Enforcement Authority.
- 1.2.2** For Reliability Coordinators and other functional entities that work for their Regional Entity, the ERO shall serve as the Compliance Enforcement Authority.
- 1.2.3** For Responsible Entities that are also Regional Entities, the ERO or a Regional Entity approved by the ERO and FERC or other applicable governmental authorities shall serve as the Compliance Enforcement Authority.
- 1.2.4** For the ERO, a third-party monitor without vested interest in the outcome for the ERO shall serve as the Compliance Enforcement Authority.

1.3. Compliance Monitoring and Enforcement Processes

Compliance Audits

Self-Certifications

Spot Checking

Compliance Violation Investigations

Self-Reporting

Complaints

1.4. Data Retention

- 1.4.1** The Responsible Entity shall keep all documentation and records from the previous full calendar year unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation.
- 1.4.2** The Compliance Enforcement Authority in conjunction with the Registered Entity shall keep the last audit records and all requested and submitted subsequent audit records.

1.5. Additional Compliance Information

- 1.5.1** None

2. Violation Severity Levels

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Requirement	VRF	Lower VSL	Moderate VSL	High VSL	Severe VSL
R1.	MEDIUM	N/A	N/A	The Responsible Entity has documented but not implemented a cyber security policy.	The Responsible Entity has not documented nor implemented a cyber security policy.
R1.1.	LOWER	N/A	N/A	N/A	The Responsible Entity's cyber security policy does not address all the requirements in Standards CIP-002-4 through CIP-009-4, including provision for emergency situations.
R1.2. <i>(Retirement approved by FERC effective January 21, 2014.)</i>	LOWER	N/A	N/A	N/A	The Responsible Entity's cyber security policy is not readily available to all personnel who have access to, or are responsible for, Critical Cyber Assets.
R1.3	LOWER	N/A	N/A	The Responsible Entity's senior manager, assigned pursuant to R2, annually reviewed but did not annually approve its cyber security policy.	The Responsible Entity's senior manager, assigned pursuant to R2, did not annually review nor approve its cyber security policy.
R2.	LOWER	N/A	N/A	N/A	The Responsible Entity has not assigned a single senior manager with overall responsibility and authority for leading and managing the entity's implementation of, and adherence to, Standards CIP-002-4 through CIP-009-4.
R2.1.	LOWER	N/A	N/A	N/A	The senior manager is not identified by name, title, and date of designation.
R2.2.	LOWER	Changes to the senior manager were documented in greater than 30 but less than 60 days of the effective date.	Changes to the senior manager were documented in 60 or more but less than 90 days of the effective date.	Changes to the senior manager were documented in 90 or more but less than 120 days of the effective date.	Changes to the senior manager were documented in 120 or more days of the effective date.
R2.3.	LOWER	N/A	N/A	The identification of a senior manager's delegate does not include at least one of the following; name, title, or date of the designation, OR The document is not approved by the senior manager.	A senior manager's delegate is not identified by name, title, and date of designation; the document delegating the authority does not identify the authority being delegated; the document delegating the authority is not approved by the senior manager; AND

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Requirement	VRF	Lower VSL	Moderate VSL	High VSL	Severe VSL
				OR Changes to the delegated authority are not documented within thirty calendar days of the effective date.	changes to the delegated authority are not documented within thirty calendar days of the effective date.
R2.4	LOWER	N/A	N/A	N/A	The senior manager or delegate(s) did not authorize and document any exceptions from the requirements of the cyber security policy as required.
R3. (Retirement approved by FERC effective January 21, 2014.)	LOWER	N/A	N/A	In Instances where the Responsible Entity cannot conform to its cyber security policy (pertaining to CIP 002 through CIP 009), exceptions were documented, but were not authorized by the senior manager or delegate(s).	In Instances where the Responsible Entity cannot conform to its cyber security policy (pertaining to CIP 002 through CIP 009), exceptions were not documented, and were not authorized by the senior manager or delegate(s).
R3.1. (Retirement approved by FERC effective January 21, 2014.)	LOWER	Exceptions to the Responsible Entity’s cyber security policy were documented in more than 30 but less than 60 days of being approved by the senior manager or delegate(s).	Exceptions to the Responsible Entity’s cyber security policy were documented in 60 or more but less than 90 days of being approved by the senior manager or delegate(s).	Exceptions to the Responsible Entity’s cyber security policy were documented in 90 or more but less than 120 days of being approved by the senior manager or delegate(s).	Exceptions to the Responsible Entity’s cyber security policy were documented in 120 or more days of being approved by the senior manager or delegate(s).
R3.2. (Retirement approved by FERC effective January 21, 2014.)	LOWER	N/A	N/A	The Responsible Entity has a documented exception to the cyber security policy (pertaining to CIP 002-4 through CIP 009-4) but did not include either: 1) an explanation as to why the exception is necessary, or 2) any compensating measures.	The Responsible Entity has a documented exception to the cyber security policy (pertaining to CIP 002-4 through CIP 009-4) but did not include both: 1) an explanation as to why the exception is necessary, and 2) any compensating measures.
R3.3. (Retirement approved by FERC effective January 21, 2014.)	LOWER	N/A	N/A	Exceptions to the cyber security policy (pertaining to CIP 002-4 through CIP 009-4) were reviewed but not approved annually by the senior manager or delegate(s) to ensure the exceptions are still required and valid.	Exceptions to the cyber security policy (pertaining to CIP 002-4 through CIP 009-4) were not reviewed nor approved annually by the senior manager or delegate(s) to ensure the exceptions are still required and valid.
R4.	MEDIUM	N/A	The Responsible Entity implemented but did not document a program to identify, classify, and protect information associated with Critical Cyber Assets.	The Responsible Entity documented but did not implement a program to identify, classify, and protect information associated with Critical Cyber Assets.	The Responsible Entity did not implement nor document a program to identify, classify, and protect information associated with Critical Cyber Assets.

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Requirement	VRF	Lower VSL	Moderate VSL	High VSL	Severe VSL
R4.1.	MEDIUM	N/A	N/A	The information protection program does not include one of the minimum information types to be protected as detailed in R4.1.	The information protection program does not include two or more of the minimum information types to be protected as detailed in R4.1.
R4.2. (Retirement approved by FERC effective January 21, 2014.)	LOWER	N/A	N/A	N/A	The Responsible Entity did not classify the information to be protected under this program based on the sensitivity of the Critical Cyber Asset information.
R4.3.	LOWER	N/A	The Responsible Entity annually assessed adherence to its Critical Cyber Asset information protection program, documented the assessment results, which included deficiencies identified during the assessment but did not implement a remediation plan.	The Responsible Entity annually assessed adherence to its Critical Cyber Asset information protection program, did not document the assessment results, and did not implement a remediation plan.	The Responsible Entity did not annually, assess adherence to its Critical Cyber Asset information protection program, document the assessment results, nor implement an action plan to remediate deficiencies identified during the assessment.
R5.	LOWER	N/A	The Responsible Entity implemented but did not document a program for managing access to protected Critical Cyber Asset information.	The Responsible Entity documented but did not implement a program for managing access to protected Critical Cyber Asset information.	The Responsible Entity did not implement nor document a program for managing access to protected Critical Cyber Asset information.
R5.1.	LOWER	N/A	N/A	The Responsible Entity maintained a list of designated personnel for authorizing either logical or physical access but not both.	The Responsible Entity did not maintain a list of designated personnel who are responsible for authorizing logical or physical access to protected information.
R5.1.1.	LOWER	N/A	N/A	The Responsible Entity did identify the personnel by name and title but did not identify the information for which they are responsible for authorizing access.	The Responsible Entity did not identify the personnel by name and title nor the information for which they are responsible for authorizing access.
R5.1.2.	LOWER	N/A	N/A	N/A	The Responsible Entity did not verify at least annually the list of personnel responsible for authorizing access to protected information.
R5.2.	LOWER	N/A	N/A	N/A	The Responsible Entity did not review at least annually the access privileges to protected information to confirm that access privileges are correct and that they correspond with the Responsible Entity's needs and appropriate personnel roles and responsibilities.

Requirement	VRF	Lower VSL	Moderate VSL	High VSL	Severe VSL
R5.3.	LOWER	N/A	N/A	N/A	The Responsible Entity did not assess and document at least annually the processes for controlling access privileges to protected information.
R6.	LOWER	<p>The Responsible Entity has established but not documented a change control process</p> <p>OR</p> <p>The Responsible Entity has established but not documented a configuration management process.</p>	<p>The Responsible Entity has established but not documented both a change control process and configuration management process.</p>	<p>The Responsible Entity has not established and documented a change control process</p> <p>OR</p> <p>The Responsible Entity has not established and documented a configuration management process.</p>	<p>The Responsible Entity has not established and documented a change control process</p> <p>AND</p> <p>The Responsible Entity has not established and documented a configuration management process.</p>

E. Regional Variances

None identified.

Version History

Version	Date	Action	Change Tracking
2		<p>Modifications to clarify the requirements and to bring the compliance elements into conformance with the latest guidelines for developing compliance elements of standards.</p> <p>Removal of reasonable business judgment.</p> <p>Replaced the RRO with the RE as a responsible entity.</p> <p>Rewording of Effective Date.</p> <p>Requirement R2 applies to all Responsible Entities, including Responsible Entities which have no Critical Cyber Assets.</p> <p>Modified the personnel identification information requirements in R5.1.1 to include name, title, and the information for which they are responsible for authorizing access (removed the business phone information).</p> <p>Changed compliance monitor to Compliance Enforcement Authority.</p>	
3		Update version number from -2 to -3	
3	12/16/09	Approved by the NERC Board of Trustees	Update
4	Board approved 01/24/2011	Update version number from “3” to “4”	Update to conform to changes to CIP-002-4 (Project 2008-06)
4	4/19/12	<p>FERC Order issued approving CIP-003-4 (approval becomes effective June 25, 2012)</p> <p>Added approved VRF/VSL table to section D.2.</p>	
3, 4	2/7/13	R1.2, R3, R3.1, R3.2, R3.3, and R4.2 and associated elements approved by NERC Board of Trustees for retirement as part of the Paragraph 81 project (Project 2013-02) pending applicable regulatory approval.	
4	8/12/13	FERC Order issued granting an extension of time on CIP V4 Reliability Standards. This order extends the enforcement date from April 1, 2014 to October 1, 2014.	
4	11/21/13	R1.2, R3, R3.1, R3.2, R3.3, and R4.2 and associated elements approved by FERC for retirement as part of the Paragraph 81 project	

	(Project 2013-02)	
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