# **Standard Development Timeline**

This section is maintained by the drafting team during the development of the standard and will be removed when the standard is adopted by the NERC Board of Trustees (Board).

# **Description of Current Draft**

This is the fifth draft of the proposed standard.

Completed Actions	Date
Standards Committee (SC) approved Standard Authorization Request (SAR) for posting	March 9, 2016
SAR posted for comment	March 23–April 21, 2016
SAR posted for comment	June 1–June 30, 2016
SC Accepted the SAR	July 20, 2016
60-day formal comment period with initial ballot	January 21–March 22, 2021
63-day formal comment period with additional ballot	June 30 –September 1, 2021
53-day formal comment period with additional ballot	February 18 – April 12, 2022
45-day formal comment period with additional ballot	August 17 – October 3, 2022

Anticipated Actions	Date
45-day formal comment period with additional ballot	October – November 2023
Final Ballot	November 2023
Board adoption	December 2023

October 2022

#### New or Modified Term(s) Used in NERC Reliability Standards

This section includes all new or modified terms used in the proposed standard that will be included in the *Glossary of Terms Used in NERC Reliability Standards* upon applicable regulatory approval. Terms used in the proposed standard that are already defined and are not being modified can be found in the *Glossary of Terms Used in NERC Reliability Standards*. The new or revised terms listed below will be presented for approval with the proposed standard. Upon Board adoption, this section will be removed.

Term(s): See Separate document containing all proposed new or modified terms titled "Project 2016-02 Draft 5 Definitions".

#### **A. Introduction**

- 1. Title: Cyber Security Security Management Controls
- 2. Number: CIP-003-9-10
- **3. Purpose:** To specify consistent and sustainable security management controls that establish responsibility and accountability to

protect BES Cyber Systems against compromise that could lead to misoperation or instability in the Bulk Electric System (BES).

- 4. Applicability:
  - **4.1.** Functional Entities: For the purpose of the requirements contained herein, the following list of functional entities will be collectively referred to as "Responsible Entities." For requirements in this standard where a specific functional entity or subset of functional entities are the applicable entity or entities, the functional entity or entities are specified explicitly.

#### 4.1.1. Balancing Authority

- **4.1.2.** Distribution Provider that owns one or more of the following Facilities, systems, and equipment for the protection or restoration of the BES:
  - **4.1.2.1.** Each underfrequency Load shedding (UFLS) or undervoltage Load shedding (UVLS) system that:
    - **4.1.2.1.1.** is part of a Load shedding program that is subject to one or more requirements in a NERC or Regional Reliability Standard; and
    - **4.1.2.1.2.** performs automatic Load shedding under a common control system owned by the Responsible Entity, without human operator initiation, of 300 MW or more.
  - **4.1.2.2.** Each Remedial Action Scheme (RAS) where the RAS is subject to one or more requirements in a NERC or Regional Reliability Standard.
  - **4.1.2.3.** Each Protection System (excluding UFLS and UVLS) that applies to Transmission where the Protection System is subject to one or more requirements in a NERC or Regional Reliability Standard.
  - **4.1.2.4.** Each Cranking Path and group of Elements meeting the initial switching requirements from a Blackstart Resource up to and including the first interconnection point of the starting station service of the next generation unit(s) to be started.
- 4.1.3. Generator Operator

- 4.1.4. Generator Owner
- 4.1.5. Reliability Coordinator
- 4.1.6. Transmission Operator
- 4.1.7. Transmission Owner

1.1.-

- **4.2. \_Facilities:** For the purpose of the requirements contained herein, the following Facilities, systems, and equipment owned by each Responsible Entity in Section 4.1 above are those to which these requirements are applicable. For requirements in this standard where a specific type of Facilities, system, or equipment or subset of Facilities, systems, and equipment are applicable, these are specified explicitly.
  - **4.2.1.** Distribution Provider: One or more of the following Facilities, systems and equipment owned by the Distribution Provider for the protection or restoration of the BES:
    - 4.2.1.1. Each UFLS or UVLS System that:
      - **4.2.1.1.1.** is part of a Load shedding program that is subject to one or more requirements in a NERC or Regional Reliability Standard; and
      - **4.2.1.1.2.** performs automatic Load shedding under a common control system owned by the Responsible Entity, without human operator initiation, of 300 MW or more.
    - **4.2.1.2.** Each RAS where the RAS is subject to one or more requirements in a NERC or Regional Reliability Standard.
    - **4.2.1.3.** Each Protection System (excluding UFLS and UVLS) that applies to Transmission where the Protection System is subject to one or more requirements in a NERC or Regional Reliability Standard.
    - **4.2.1.4.** Each Cranking Path and group of Elements meeting the initial switching requirements from a Blackstart Resource up to and including the first interconnection point of the starting station service of the next generation unit(s) to be started.
  - 4.2.2. Responsible Entities listed in 4.1 other than Distribution Providers: All BES Facilities.
  - 4.2.3. Exemptions: The following are exempt from Standard CIP-003-9-10:
    - **4.2.3.1.** Cyber <u>AssetsSystems</u> at Facilities regulated by the Canadian Nuclear Safety Commission.

- **4.2.3.2.** Cyber <u>AssetsSystems</u> associated with communication networks and data communication links between discrete Electronic Security Perimeters (<u>ESPsESP</u>).
- 4.2.3.3.
   Cyber Systems, associated with communication networks and data

   communication links, between Cyber Systems providing
   confidentiality and integrity of an ESP that extends to one or more

   geographic locations.
   control
- **4.2.3.3.4.** 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.
- **4.2.3.4.4.2.3.5.** For Distribution Providers, the systems and equipment that are not included in section 4.2.1 above.
- 5. Effective Dates: See <u>"Project 2016-02 Modifications to CIP Standards</u> Implementation Plan for <u>CIP 003-9</u>

#### **B. Requirements and Measures**

- **R1.** Each Responsible Entity shall review and obtain CIP Senior Manager approval at least once every 15 calendar months for one or more documented cyber security policies that collectively address the following topics: [Violation Risk Factor: Medium] [Time Horizon: Operations Planning]
  - 1.1. For its high impact and medium impact <u>BES Cyber Systems</u>BCS, if any:
    - 1.1.1. Personnel and training (CIP-004);
    - **1.1.2.** Electronic Security Perimeters (CIP-005) including Interactive Remote Access;
    - 1.1.3. Physical security of BES Cyber Systems BCS (CIP-006);
    - 1.1.4. System security management (CIP-007);
    - 1.1.5. Incident reporting and response planning (CIP-008);
    - 1.1.6. Recovery plans for BES Cyber Systems BCS (CIP-009);
    - Configuration change management and vulnerability assessments (CIP-010);
    - 1.1.8. Information protection (CIP-011); and
    - 1.1.9. Declaring and responding to CIP Exceptional Circumstances.
  - For its assets identified in CIP-002 containing low impact BES Cyber Systems BCS, if any:
    - 1.2.1. Cyber security awareness;
    - 1.2.2. Physical security controls;
    - 1.2.3. Electronic access controls;
    - 1.2.4. Cyber Security Incident response;
    - Transient Cyber Assets (TCA) and Removable Media malicious code risk mitigation;
    - 1.2.6. Vendor electronic remote access security controls; and
    - 1.2.7. Declaring and responding to CIP Exceptional Circumstances.
- M1. Examples of evidence may include, but are not limited to, policy documents; revision history, records of review, or workflow evidence from a document management system that indicate review of each cyber security policy at least once every 15 calendar months; and documented approval by the CIP Senior Manager for each cyber security policy.
- **R2.** Each Responsible Entity with at least one asset identified in CIP–002 containing low impact <u>BES Cyber SystemsBCS</u> shall implement one or more documented cyber

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security\_plan(s) for its low impact <u>BES Cyber Systems\_BCS</u>, and <u>Shared Cyber</u> <u>Infrastructure (SCI) that supports a low impact BCS</u>, that include the sections in Attachment 1. [*Violation Risk Factor: Lower*] [*Time Horizon: Operations Planning*]

Note: An inventory, list, or discrete identification of low impact <u>BES Cyber</u> <u>SystemsBCS</u> or their BES Cyber Assets <u>(BCA)</u> is not required. Lists of authorized users are not required.

- **M2.** Evidence shall include each of the documented cyber security plan(s) that collectively include each of the sections in Attachment 1 and additional evidence to demonstrate implementation of the cyber security plan(s). Additional examples of evidence per section are located in Attachment 2.
- **R3.** Each Responsible Entity shall identify a CIP Senior Manager by name and document any change within 30 calendar days of the change. [Violation Risk Factor: Medium] [Time Horizon: Operations Planning]
- **M3.** An example of evidence may include, but is not limited to, a dated and approved document from a high level official designating the name of the individual identified as the CIP Senior Manager.
- **R4.** The Responsible Entity shall implement a documented process to delegate authority, unless no delegations are used. Where allowed by the CIP Standards, the CIP Senior Manager may delegate authority for specific actions to a delegate or delegates. These delegations shall be documented, including the name or title of the delegate, the specific actions delegated, and the date of the delegation; approved by the CIP Senior Manager; and updated within 30 days of any change to the delegator. [Violation Risk Factor: Lower] [Time Horizon: Operations Planning]
- M4. An example of evidence may include, but is not limited to, a dated document, approved by the CIP Senior Manager, listing individuals (by name or title) who are delegated the authority to approve or authorize specifically identified items.

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#### **C.** Compliance

- 1. Compliance Monitoring Process
  - 1.1. Compliance Enforcement Authority: As defined in the NERC Rules of Procedure, "Compliance Enforcement Authority" (CEA) means NERC or the Regional Entity in their respective roles of monitoring and enforcing compliance with the <u>NERC</u>mandatory and enforceable Reliability Standards.
  - 1.2. Evidence Retention: The following evidence retention periods identify the period of time an entity is required to retain specific evidence to demonstrate compliance. For instances where the evidence retention period specified below is shorter than the time since the last audit, the CEA may ask an entity to provide other evidence to show that it was compliant for the full time period since the last audit.

The Responsible Entity shall keep data or evidence to show compliance as identified below unless directed by its CEA to retain specific evidence for a longer period of time as part of an investigation:

- Each Responsible Entity shall retain evidence of each requirement in this standard for three calendar years.
- If a Responsible Entity is found non-\_compliant, it shall keep information related to the non-\_compliance until mitigation is complete and approved or for the time specified above, whichever is longer.
- The CEA shall keep the last audit records, and all requested and submitted subsequent audit records.
- 1.3. Compliance Monitoring and Enforcement Program: As defined in the NERC Rules of Procedure, "Compliance Monitoring and Enforcement Program" refers to the identification of the processes that will be used to evaluate data or information for the purpose of assessing performance or outcomes with the associated Reliability Standard.

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# Violation Severity Levels

	Violation Severity Levels (CIP-003-910)			
R #	Lower VSL	Moderate VSL	High VSL	Severe VSL
<u>R1</u>	The Responsible Entity did not address one of the nine topics required by Requirement R1. (Part 1.1)	The Responsible Entity did not address two of the nine topics required by Requirement R1. (Part 1.1)	The Responsible Entity did not address three of the nine topics required by Requirement R1. (Part 1.1)	The Responsible Entity did not address four or more of the nine topics required by Requirement R1. (Part 1.1)
	OR The Responsible Entity did not complete its review of the one or more documented cyber security policies for its high impact and medium impact BES Cyber SystemsBCS as	OR The Responsible Entity did not complete its review of the one or more documented cyber security policies for its high impact and medium impact BES Cyber SystemsBCS as required by Requirement R1	OR The Responsible Entity did not complete its review of the one or more documented cyber security policies for its high impact and medium impact BES Cyber SystemsBCS as	OR The Responsible Entity did not have any documented cyber security policies for its high impact and medium impact <u>BCS as</u> required by Requirement R1. (Part 1.1) OR
	required by <u>Requirement</u> R1 within 15 calendar months but did complete this review in less than or equal to 16 calendar months of the <u>previous</u> <u>review. (Part 1.1)</u>	within 16 calendar months but did complete this review in less than or equal to 17 calendar months of the <u>previous review</u> . (Part 1.1) OR	required by <u>Requirement</u> R1 within 17 calendar months but did complete this review in less than or equal to 18 calendar months of the <u>previous</u> <u>review. (Part 1.1)</u>	The Responsible Entity did not complete its review of the one or more documented cyber security policies as required by Requirement R1 within 18 calendar months of the previous
	OR The Responsible Entity did not complete its approval of the one or more documented cyber security policies for its high impact and medium impact BCS as	The Responsible Entity did not complete its approval of the one or more documented cyber security policies for its high impact and medium impact BCS as required by Requirement R1 by the CIP Senior Manager within 16 calendar months but	OR The Responsible Entity did not complete its approval of the one or more documented cyber security policies for its high impact and medium impact BCS as	review. (Requirement R1) OR The Responsible Entity did not complete its approval of the one or more documented cyber security policies for its high impact and medium impact BES Cyber

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	Violation Severity Levels (CIP-003-910)			
R #	Lower VSL	Moderate VSL	High VSL	Severe VSL
	required by Requirement	did complete this approval in	required by Requirement	Systems as required by R1.
	R1 by the CIP Senior	less than or equal to 17 calendar	R1 by the CIP Senior	(R1Requirement R1 by the CIP
	Manager within 15 calendar	months of the previous	Manager within 17	Senior Manager within 18
	months but did complete	approval. (Part 1.1)	calendar months but did	calendar months of the previous
	this approval in less than or	OR	complete this approval in	approval. (Part 1.1)
	equal to 16 calendar		less than or equal to 18	OR
	months of the previous	The Responsible Entity	calendar months of the	OR
	approval. (Part 1.1)	documented one or more cyber	previous approval.	The Responsible Entity did not
	OR	security policies for its assets	(Requirement R1)	address four or more of the seve
		identified in CIP-002 containing	OR	topics required by Requirement
	The Responsible Entity	low impact BCS, but did not		<u>R1. (Part 1.2)</u>
	documented one or more	<u>address two of the seven topics</u>	The Responsible Entity	
	cyber security policies for	required by R1. (Part 1.2)	documented one or more	OR
	its assets identified in CIP-	OR	cyber security policies for	The Responsible Entity did not
	002 containing low impact		its assets identified in CIP-	have any documented cyber
	BCS, but did not address	The Responsible Entity did not	002 containing low impact	security policies for its assets
	one of the seven topics	complete its review of the one	BCS, but did not address	identified in CIP-002 containing
	required by Requirement	or more documented cyber	three of the seven topics	low impact BCS as required by R2
	R1. (Part 1.2)	security policies for its assets	required by Requirement	(R1.2)
		identified in CIP-002 containing	R1. (Part 1.2)	OP
	OR	low impact BES Cyber Systems		OR
	The Responsible Entity did	as required by Requirement R1	OR	The Responsible Entity did not
	not complete its review of	within 16 calendar months but	The Responsible Entity did	complete its reviewapproval of
	the one or more	did complete this review in less	not complete its review of	the one or more documented
	documented cyber security	than or equal to 17 calendar	the one or more	<del>cyber security policies</del> cyber
	policies for its assets	months of the previous review.	documented cyber security	security policies for its assets
	identified in CIP-002	(Part 1.2)	policies for its assets	identified in CIP-002 containing
	containing low impact BES		identified in CIP-002	low impact BCS as required by
	Cyber Systems as required	OR	containing low impact BES	Requirement R1 by the CIP Senio
	by Requirement R1 within	The Responsible Entity did not	Cyber Systems as required	Manager within 18 calendar
	15 calendar months but did	complete its approval of the one	by Requirement R1 within	manager within 10 calchuar

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	Violation Severity Levels (CIP-003-910)				
R #	Lower VSL	Moderate VSL	High VSL	Severe VSL	
	complete this review in less than or equal to 16 calendar months of the previous review. (Part 1.2) OR The Responsible Entity did not complete its approval of the one or more documented cyber security policies for its assets identified in CIP-002 containing low impact BCS as required by Requirement R1 by the CIP Senior Manager within 15 calendar months but did complete this approval in less than or equal to 16 calendar months of the previous approval. (Part 1.2)	or more documented cyber security policies for its assets identified in CIP-002 containing low impact BCS as required by Requirement R1 by the CIP Senior Manager within 16 calendar months but did complete this approval in less than or equal to 17 calendar months of the previous approval. (Part 1.2)	17 calendar months but did complete this review in less than or equal to 18 calendar months of the previous review. (Part 1.2) OR The Responsible Entity did not complete its approval of the one or more documented cyber security policies for its assets identified in CIP-002 containing low impact BES Cyber Systems as required by Requirement R1 by the CIP Senior Manager within 17 calendar months but did complete this approval in less than or equal to 18 calendar months of the previous approval. (Part 1.2)	months of the previous approval. (R1.2)	
<u>R2</u>	The Responsible Entity failed to document cyber security awareness according to Requirement R2, Attachment 1, Section 1. (Requirement R2)	The Responsible Entity failed to reinforce cyber security practices at least once every 15 calendar months according to Requirement R2, Attachment 1, Section 1. (Requirement R2)	The Responsible Entity failed to implement the physical security controls according to Requirement R2, Attachment 1, Section 2. (Requirement R2)	<u>The Responsible Entity failed to</u> <u>document and implement one or</u> <u>more cyber security plan(s)</u> <u>according to Requirement R2,</u> <u>Attachment 1. (Requirement R2)</u>	

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	Violation Severity Levels (CIP-003-910)		
R # Lower VSL	Moderate VSL	High VSL	Severe VSL
OR	OR	OR	
The Responsible Entity         failed to document its of security plan(s) for         electronic access control         according to Requirement         R2, Attachment 1, Section         3. (Requirement R2)         OR         The Responsible Entity         failed to document one         more Cyber Security         Incident response plant         according to Requirement         R2, Attachment 1, Section         Attachment 1, Section	Image: constraint of the seponsible Entity failed to document physical security controls according toolsRequirement R2, Attachment 1, Section 2. (Requirement R2)ionORThe Responsible Entity failed to document electronic access controls according toeorRequirement R2, Attachment 1, Section 3. (R2)(s) entOR(s) entORThe Responsible Entity failed to implement authentication for all Dial-up Connectivity according to Requirement R2, Attachment 1, Section 3.2 (R2)yber nseORThe Responsible Entity failed to implement authentication, and response to Cyber Security Incidents according to Requirement R2, Attachment 1,	OILThe Responsible Entity failed to permit only necessary inbound and outbound electronic access controls according to Requirement R2, Attachment 1, Section 3.1. (Requirement R2)ORThe Responsible Entity documented failed to test each Cyber Security Incident response plan(s) at least once every 36 calendar months according to Requirement R2, Attachment 1, Section 4. (R2)ORThe Responsible Entity diled to notify the Electricity Information Sharing and Analysis Center (E-ISAC) according to Requirement R2, Attachment 1, Section 4. (R2)	

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	Violation Severity	<sup>,</sup> Levels (CIP-003-9 <u>10</u> )	
R # Lower VSL	Moderate VSL	High VSL	Severe VSL
Transient Cyber Asset(s) according to Requirement R2, Attachment 1, Section 5.1. (Requirement R2)ORThe Responsible Entity failed to document the Removable Media section(s) according to Requirement R2, Attachment 1, Section 5.3. (Requirement R2)ORThe Responsible Entity implemented vendor electronic remote access security process for vendor electronic remote access security controls but failed to document R2, Attachment 1, Section 6, (R2)	OR         The Responsible Entity failed to         document the determination of         whether an identified Cyber         Security Incident is a Reportable         Cyber Security Incident and         subsequent notification to the         Electricity Information Sharing         and Analysis Center (E-ISAC)         according to Requirement R2,         Attachment 1, Section 4.         (Requirement R2)         OR         The Responsible Entity failed to         document mitigation for the         introduction of malicious code         for TCA managed by the         Responsible Entity according to         Requirement R2,         OR         The Responsible Entity according to         Requirement R2, Attachment 1,         Sections 5.1 and 5.3.         (Requirement R2)         OR         The Responsible Entity failed to         document mitigation for the         introduction of malicious code         for Transient Cyber Assets         managed by a party other than	ORThe Responsible Entity failed to implement mitigation for the introduction of malicious code for TCA managed by the Responsible Entity according to Requirement R2, Attachment 1, Section 5.1. (Requirement R2)ORThe Responsible Entity failed to implement mitigation for the introduction of malicious code for Transient Cyber Assets managed by a party other than the Responsible Entity according to Requirement R2, Attachment 1, Section 5.2. (Requirement R2, Attachment 1, Section 5.2. (Requirement R2)ORThe Responsible Entity failed to implement mitigation for the threat of detected malicious code on	

	Violation Severity Levels (CIP-003-910)			
R #	Lower VSL	Moderate VSL	High VSL	Severe VSL
		to Requirement R2, Attachment 1, Section 5.2. (Requirement R2) OR The Responsible Entity failed to implement the Removable Media section(s) according to Requirement R2, Attachment 1, Section 5.3. (Requirement R2) OR The Responsible Entity documented its cyber security process for vendor electronic remote access security controls, but failed to implement vendor electronic remote access security controls according to Requirement R2. Attachment 1, Section 6. (R2)	to connecting Removable Media according to Requirement R2, Attachment 1, Section 5.3. (Requirement R2) OR The Responsible Entity failed to document and implement its cyber process for vendor electronic remote access security controls according to Requirement R2, Attachment 1, Section 6. (R2)	
<u>R3</u>	The Responsible Entity did not document changes to the CIP Senior Manager within 30 calendar days but did document this change in less than 40 calendar days of the change. (Requirement R3)	The Responsible Entity did not document changes to the CIP Senior Manager within 40 calendar days but did document this change in less than 50 calendar days of the change. (Requirement R3)	The Responsible Entity did not document changes to the CIP Senior Manager within 50 calendar days but did document this change in less than 60 calendar days of the change. (Requirement R3)	The Responsible Entity did notidentify, by name, a CIP SeniorManager.ORThe Responsible Entity did notdocument changes to the CIPSenior Manager within 60

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	Violation Severity Levels (CIP-003- <mark>910</mark> )				
R #	Lower VSL	Moderate VSL	High VSL	Severe VSL	
				calendar days of the change. (Requirement R3)	
<u>R4</u>	The Responsible Entity did not document changes to the delegate within 30 calendar days but did document this change in less than 40 calendar days of the change. (Requirement R4)	The Responsible Entity did not document changes to the delegate within 40 calendar days but did document this change in less than 50 calendar days of the change. (Requirement R4)	The Responsible Entity did not document changes to the delegate within 50 calendar days but did document this change in less than 60 calendar days of the change. (Requirement R4)	The Responsible Entity does not have a process to delegate actions from the CIP Senior Manager. (Requirement R4) OR The Responsible Entity did not document changes to the delegate within 60 calendar days of the change. (Requirement R4)	

# D. Regional Variances None.

# **E.** Interpretations

None.

# **F. Associated Documents**

None.

# **Version History**

Version	Date	Action	Change Tracking
1	1/16/06	R3.2 — Change "Control Center" to "control center."	3/24/06
2	9/30/09	Modifications to clarify the requirements and to bring the compliance elements into conformance with the latest guidelines for developing compliance elements of standards.	
		Removal of reasonable business judgment.	
		Replaced the RRO with the RE as a responsible entity.	
		Rewording of Effective Date.	
		Changed compliance monitor to Compliance Enforcement Authority.	
3	12/16/09	Updated Version Number from -2 to -3	
		In Requirement 1.6, deleted the sentence pertaining to removing component or system from service in order to perform testing, in response to FERC order issued September 30, 2009.	
3	12/16/09	Approved by the NERC Board of Trustees.	
3	3/31/10	Approved by FERC.	
4	1/24/11	Approved by the NERC Board of Trustees.	
5	11/26/12	Adopted by the NERC Board of Trustees.	Modified to coordinate with other CIP standards and to revise format to use RBS Template.
5	11/22/13	FERC Order issued approving CIP0035.	
6	11/13/14	Adopted by the NERC Board of Trustees.	Addressed two FERC directives from <u>Order</u> <u>No. 791 related to</u> <u>identify, assess, and</u> <u>correct language and</u> <u>communication</u> <u>networks.</u>

#### <u>CIP-003-9 - Cyber Security --- Security Management</u>

<b>Version</b>	Date	Action	Change Tracking
			Order No. 791 related to identify, assess, and correct language and communication networks.
6	2/12/15	Adopted by the NERC Board of Trustees.	Replaces the version adopted by the Board on 11/13/2014. Revised version addresses remaining directives from Order No. 791 related to transient devices and low impact BES Cyber Systems.
6	1/21/16	FERC Order issued approving CIP0036. Docket No. RM1514000	
7	2/9/17	Adopted by the NERC Board of Trustees.	Revised to address FERC Order No. 822 directives regarding _(1) the definition of LERC and (2) transient devices.
7	4/19/18	FERC Order issued approving CIP0037. Docket No. RM1711000	
8	5/9/19	Adopted by the NERC Board of Trustees.	Removed SPS references. Revised to address FERC Order No. 843 regarding mitigating the risk of malicious code.
8	7/31/2019	FERC Order issued approving CIP0038. Docket No. RD195000.	

<del>Version</del>	<del>Date</del>	Actio n	Change Tracking
9	11/16/202 2	Adopted by the NERC Board of Trustees.	Revisions to address NERC Board Resolution and the Supply Chain Report
9	3/16/2023	FERC Order issued approving CIP0039. Docket No. RD23-3000.	
9	3/22/2023	Effective Date	April 1, 2026
<u>10</u>	<u>TBD</u>	Modified by Project 2016-02	

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# **Attachment 1**

#### Required Sections for Cyber Security Plan(s) for Assets Containing Low Impact BES Cyber Systems

Responsible Entities shall include each of the sections provided below in the cyber security plan(s) required under Requirement R2.

Responsible Entities with multiple-\_impact <u>BES Cyber SystemsBCS</u> ratings can utilize policies, procedures, and processes for their high or medium impact <u>BES Cyber SystemsBCS</u> to fulfill the sections for the development of low impact cyber security plan(s). Each Responsible Entity can develop a cyber security plan(s) either by individual asset or groups of assets.

- Section 1. <u>Section 1. Cyber Security Awareness</u>: Each Responsible Entity shall reinforce, at least once every 15 calendar months, cyber security practices (which may include associated physical security practices).
- Section 2. Section 2. Physical Security Controls: Each Responsible Entity shall control physical access, based on need as determined by the Responsible Entity, to (1) the asset or the locations of the low impact <u>BES Cyber SystemsBCS</u> within the asset, and (2) the Cyber Asset(s); or VCA, as specified by the Responsible Entity, that provide electronic access control(s) implemented for Section 3.1, if any.
- Section 3. Section 3. Electronic Access Controls: For each asset containing low impact BES Cyber System(s) identified pursuant to CIP-\_002, the Responsible Entity shall implement electronic access controls to:
  - **3.1** Permit only necessary inbound and outbound electronic access as determined by the Responsible Entity for any communications that are:
    - <u>i. betweenBetween:</u>
      - a low impact BES Cyber System(s) BCS; or
      - An SCI that supports a low impact BCS

and a Cyber AssetSystem(s) outside the asset containing low impact BES Cyber System(s);

- the low impact BCS(s); or
- the SCI that supports a low impact BCS;
- i-ii. using a routable protocol when entering or leaving the asset containing the low impact <u>BES Cyber System(s);BCS or SCI that supports a low impact</u> <u>BCS;</u> and
- ii.<u>iii.</u>not used for time-\_sensitive <del>protection or control functions between</del> intelligent electronic devices (e.g., communications <del>using protocol IEC TR-61850-90-5 R-GOOSE).of Protection Systems.</del>

- **3.2** Authenticate all Dial-\_up Connectivity, if any, that provides access to low impact <u>BES Cyber System(s),BCS or SCI that supports a low impact BCS</u>, per <u>Cyber</u> <u>Assetsystem</u> capability.
- Section 4. Section 4. Cyber Security Incident Response: Each Responsible Entity shall have one or more Cyber Security Incident response plan(s), either by asset or group of assets, which shall include:
  - 4.1 Identification, classification, and response to Cyber Security Incidents;

- **4.2** Determination of whether an identified Cyber Security Incident is a Reportable Cyber Security Incident and subsequent notification to the Electricity Information Sharing and Analysis Center (E–ISAC), unless prohibited by law;
- **4.3** Identification of the roles and responsibilities for Cyber Security Incident response by groups or individuals;
- **4.4** Incident handling for Cyber Security Incidents;
- 4.5 Testing the Cyber Security Incident response plan(s) at least once every 36 calendar months by: (1) responding to an actual Reportable Cyber Security Incident; (2) using a drill or tabletop exercise of a Reportable Cyber Security Incident; or (3) using an operational exercise of a Reportable Cyber Security Incident; and
- **4.6** Updating the Cyber Security Incident response plan(s), if needed, within 180 calendar days after completion of a Cyber Security Incident response plan(s) test or actual Reportable Cyber Security Incident.

Section 5. <u>Transient Cyber Asset</u> TCA and Removable Media Malicious Code Risk Mitigation: Each Responsible Entity shall implement, except under CIP Exceptional Circumstances, one or more plan(s) to achieve the objective of mitigating the risk of the introduction of malicious code to low impact <u>BES Cyber SystemsBCS</u>, through the use of <u>Transient</u> <u>Cyber Assets</u>TCA or Removable Media. The plan(s) shall include:

- 5.1 For Transient Cyber Asset(s)TCA managed by the Responsible Entity, if any, the use of one or a combination of the following in an ongoing or on-\_demand manner (per Transient Cyber AssetTCA capability):
  - Antivirus software, including manual or managed updates of signatures or patterns;
  - Application whitelisting; or
  - Other method(s) to mitigate the introduction of malicious code.
- 5.2 For Transient Cyber Asset(s)TCA managed by a party other than the Responsible Entity, if any:
  - **5.2.1** Use one or a combination of the following prior to connecting the Transient Cyber Asset to a low impact BES Cyber System (per Transient Cyber Asset(per TCA capability):
    - Review of antivirus update level;
    - Review of antivirus update process used by the party;
    - Review of application whitelisting used by the party;
    - Review use of live operating system and software executable only from read-only media;

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- Review of system hardening used by the party; or
- OtherReview of other method(s) to mitigate the <u>risk of</u> introduction of malicious code.
- **5.2.2** For any method used pursuant to 5.2.1, Responsible Entities shall determine whether any additional mitigation actions are necessary and implement such actions prior to connecting the Transient Cyber Asset.TCA.
- **5.3** For Removable Media, the use of each of the following:
  - **5.3.1** Method(s) to detect malicious code on Removable Media using a Cyber Asset or VCA other than a <u>BES Cyber SystemBCS or SCI that supports a</u> <u>low impact BCS</u>; and
  - 5.3.2 Mitigation of the threat of detected malicious code on the Removable Media prior to connecting Removable Media to a low impact <u>BES Cyber</u> <u>SystemBCS or SCI that supports a low impact BCS</u>.
- Section 6. Vendor Electronic Remote Access Security Controls: For assets containing low impact BES Cyber System(s) identified pursuant to CIP-002, that allow vendor electronic remote access, the Responsible Entity shall implement a process to mitigate risks associated with vendor electronic remote access, where such access has been established under Section 3.1. These processes shall include:

6.1 One or more method(s) for determining vendor electronic remote access;

6.2 One or more method(s) for disabling vendor electronic remote access; and

**6.1** <u>6.3</u> One or more method(s) for detecting known or suspected inbound and outbound malicious communications for vendor electronic remote access.

#### Examples of Evidence for Cyber Security Plan(s) for Assets Containing Low Impact BES Cyber Systems

- Section 1. Section 1. Cyber Security Awareness: An example of evidence for Section 1 may include, but is not limited to, documentation that the reinforcement of cyber security practices occurred at least once every 15 calendar months. The evidence could be documentation through one or more of the following methods:
  - Direct communications (for example, e-\_mails, memos, or computer-\_based training);
  - Indirect communications (for example, posters, intranet, or brochures); or
  - Management support and reinforcement (for example, presentations or meetings).
- Section 2. Section 2. Physical Security Controls: Examples of evidence for Section 2 may include, but are not limited to:
  - Documentation of the selected access control(s) (e.g., card key, locks, perimeter controls), monitoring controls (e.g., alarm systems, human observation), or other operational, procedural, or technical physical security controls that control physical access to both:
    - a. The asset, if any, or the locations of the low impact <u>BES Cyber SystemsBCS</u> within the asset; and
    - The Cyber <u>AssetSystem</u>(s) specified by the Responsible Entity that provide(s) electronic access controls implemented for Attachment 1, Section 3.1, if any.
- Section 3. Section 3. Electronic Access Controls: Examples of evidence for Section 3 may include, but are not limited to:
  - Documentation showing that at each asset or group of assets-containing low impact BES Cyber Systems, the routable protocol communication between a low impact BES Cyber System(s) and a Cyber Asset(s) outside the assetas outlined in Section 3 is restricted by electronic access controls to permit only inbound and outbound electronic access that the Responsible Entity deems necessary, except where an entity provides rationale that communication is communications are used for time\_sensitive protection or control functions between intelligent electronic devicescommunications of Protection Systems. Examples of such documentation may include, but are not limited to representative diagrams that illustrate control of inbound and outbound communication(s) between the low impact BES Cyber System(s) and a Cyber Asset(s) outside the asset containing low impact BES Cyber System(s) or lists of implemented electronic access controls (e.g., access control lists restricting IP addresses, ports, or services; implementing unidirectional gateways).

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- Documentation of authentication for Dial-\_up Connectivity (e.g., dial out only to a preprogrammed number to deliver data, dial-\_back modems, modems that must be remotely controlled by the control center or control room, or access control on the <u>BES-Cyber SystemBCS</u>).
- Section 4. Section 4. Cyber Security Incident Response: An example of evidence for Section 4 may include, but is not limited to, dated documentation, such as policies, procedures, or process documents of one or more Cyber Security Incident response plan(s) developed either by asset or group of assets that include the following processes:
  - to identify, classify, and respond to Cyber Security Incidents; to determine whether an identified Cyber Security Incident is a Reportable Cyber Security Incident and for notifying the Electricity Information Sharing and Analysis Center (E-\_ISAC);
  - to identify and document the roles and responsibilities for Cyber Security Incident response by groups or individuals (e.g., initiating, documenting, monitoring, reporting, etc.);
  - 3. for incident handling of a Cyber Security Incident (e.g., containment, eradication, or recovery/incident resolution);
  - 4. for testing the plan(s) along with the dated documentation that a test has been completed at least once every 36 calendar months; and
  - 5. to update, as needed, Cyber Security Incident response plan(s) within 180 calendar days after completion of a test or actual Reportable Cyber Security Incident.

# Section 5. <u>Section 5. <u>Transient Cyber AssetTCA</u> and Removable Media Malicious Code Risk <u>Mitigation</u>:</u>

 Examples of evidence for Section 5.1 may include, but are not limited to, documentation of the method(s) used to mitigate the introduction of malicious code such as antivirus software and processes for managing signature or pattern updates, application whitelisting practices, processes to restrict communication, or other method(s) to mitigate the introduction of malicious code. If a <u>Transient</u> <u>Cyber AssetTCA</u> does not have the capability to use method(s) that mitigate the introduction of malicious code, evidence may include documentation by the vendor or Responsible Entity that identifies that the <u>Transient Cyber AssetTCA</u> does not have the capability.

Examples of evidence for Section 5.2.1 may include, but are not limited to, documentation from change management systems, electronic mail or procedures that document a review of the installed antivirus update level; memoranda, electronic mail, system documentation, policies or contracts from the party other than the Responsible Entity that identify the antivirus update process, the use of application whitelisting, use of live operating systems or system hardening performed by the party other than the Responsible Entity; evidence from change management systems, electronic mail or contracts that

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identifies the Responsible Entity's acceptance that the practices of the party other than the Responsible Entity are acceptable; or documentation of other method(s) to mitigate malicious code for Transient Cyber Asset(s)TCA managed by a party other than the Responsible Entity. If a Transient Cyber AssetTCA does not have the capability to use method(s) that mitigate the introduction of malicious code, evidence may include documentation by the Responsible Entity or the party other than the Responsible Entity that identifies that the Transient Cyber AssetTCA does not have the capability.

Examples of evidence for Attachment 1, Section 5.2.2 may include, but are not limited to, documentation from change management systems, electronic mail, or contracts that identifies a review to determine whether additional mitigation is necessary and has been implemented prior to connecting the <u>Transient Cyber</u> <u>AssetTCA</u> managed by a party other than the Responsible Entity.

2. Examples of evidence for Section 5.3.1 may include, but are not limited to, documented process(es) of the method(s) used to detect malicious code such as results of scan settings for Removable Media, or implementation of on-\_demand scanning. Examples of evidence for Section 5.3.2 may include, but are not limited to, documented process(es) for the method(s) used for mitigating the threat of detected malicious code on Removable Media, such as logs from the method(s) used to detect malicious code on Removable Media or documented confirmation by the entity that the Removable Media was deemed to be free of malicious code.

#### Section 6. Vendor Electronic Remote Access Security Controls: Examples of evidence showing the implementation of the process for Section 6 may include, but are not limited to:

- 1. For Section 6.1, documentation showing:
  - steps to preauthorize access;
  - alerts generated by vendor log on;
  - session monitoring;
  - security information management logging alerts;
  - time-of-need session initiation;
  - session recording;
  - system logs; or
  - other operational, procedural, or technical controls.
- 2. For Section 6.2, documentation showing:
  - disabling vendor electronic remote access user or system accounts;

- disabling inbound and/or outbound hardware or software ports, services, or access permissions on applications, firewall, IDS/IPS, router, switch, VPN, Remote Desktop, remote control, or other hardware or software used for providing vendor electronic remote access;
- disabling communications protocols (such as IP) used for systems which establish and/or maintain vendor electronic remote access;
- Removing physical layer connectivity (e.g., disconnect an Ethernet cable, power down equipment);
- administrative control documentation listing the methods, steps, or systems used to disable vendor electronic remote access; or
- other operational, procedural, or technical controls.
- For Section 6.3, documentation showing implementation of processes or technologies which have the ability to detect malicious communications such as:
  - Anti-malware technologies;
  - Intrusion Detection System (IDS)/Intrusion Prevention System (IPS);
  - Automated or manual log reviews;
  - alerting; or
  - other operational, procedural, or technical controls.