

Reliability Standard Audit Worksheet¹

CIP-005-6 - Cyber Security - Electronic Security Perimeter(s)

This section to be completed by the Compliance Enforcement Authority.

Audit ID: Audit ID if available; or REG-NCRnnnnn-YYYYMMDD

Registered Entity: Registered name of entity being audited

NCR Number: NCRnnnnn

Compliance Enforcement Authority: Region or NERC performing audit
Compliance Assessment Date(s)²: Month DD, YYYY, to Month DD, YYYY

Compliance Monitoring Method: [On-site Audit | Off-site Audit | Spot Check]

Names of Auditors: Supplied by CEA

Applicability of Requirements

	BA	DP	GO	GOP	PA/PC	RC	RP	RSG	ТО	TOP	TP	TSP
R1	Х	Х	Х	Х		Х			Χ	Х		
R2	Х	Х	Х	Х		Х			Х	Х		

<u>Legend:</u>

Text with blue background:	Fixed text – do not edit
Text entry area with Green background:	Entity-supplied information
Text entry area with white background:	Auditor-supplied information

The NERC RSAW language contained within this document provides a non-exclusive list, for informational purposes only, of examples of the types of evidence a registered entity may produce or may be asked to produce to demonstrate compliance with the Reliability Standard. A registered entity's adherence to the examples contained within this RSAW does not necessarily constitute compliance with the applicable Reliability Standard, and NERC and the Regional Entity using this RSAW reserves the right to request additional evidence from the registered entity that is not included in this RSAW. Additionally, this RSAW includes excerpts from FERC Orders and other regulatory references. The FERC Order cites are provided for ease of reference only, and this document does not necessarily include all applicable Order provisions. In the event of a discrepancy between FERC Orders, and the language included in this document, FERC Orders shall prevail.

¹ NERC developed this Reliability Standard Audit Worksheet (RSAW) language in order to facilitate NERC's and the Regional Entities' assessment of a registered entity's compliance with this Reliability Standard. The NERC RSAW language is written to specific versions of each NERC Reliability Standard. Entities using this RSAW should choose the version of the RSAW applicable to the Reliability Standard being assessed. While the information included in this RSAW provides some of the methodology that NERC has elected to use to assess compliance with the requirements of the Reliability Standard, this document should not be treated as a substitute for the Reliability Standard or viewed as additional Reliability Standard requirements. In all cases, the Regional Entity should rely on the language contained in the Reliability Standard itself, and not on the language contained in this RSAW, to determine compliance with the Reliability Standard. NERC's Reliability Standards can be found on NERC's website. Additionally, NERC Reliability Standards are updated frequently, and this RSAW may not necessarily be updated with the same frequency. Therefore, it is imperative that entities treat this RSAW as a reference document only, and not as a substitute or replacement for the Reliability Standard. It is the responsibility of the registered entity to verify its compliance with the latest approved version of the Reliability Standards, by the applicable governmental authority, relevant to its registration status.

² Compliance Assessment Date(s): The date(s) the actual compliance assessment (on-site audit, off-site spot check, etc.) occurs.

Findings

Req.	Finding	Summary and Documentation	Functions Monitored
R1			
P1.1			
P1.2			
P1.3			
P1.4			
P1.5			
R2			
P2.1			
P2.2			
P2.3			
P2.4			
P2.5			
Req.		Areas of Concern	
Req.		Recommendations	
Req.		Positive Observations	

Subject Matter Experts

Identify the Subject Matter Expert(s) responsible for this Reliability Standard.

Registered Entity Response (Required; Insert additional rows if needed):

SME Name	Title	Organization	Requirement(s)

R1 Supporting Evidence and Documentation

- **R1.** Each Responsible Entity shall implement one or more documented processes that collectively include each of the applicable requirement parts in CIP-005-6 Table R1 Electronic Security Perimeter. [Violation Risk Factor: Medium] [Time Horizon: Operations Planning and Same Day Operations].
- **M1.** Evidence must include each of the applicable documented processes that collectively include each of the applicable requirement parts in *CIP-005-6 Table R1 Electronic Security Perimeter* and additional evidence to demonstrate implementation as described in the Measures column of the table.

R1 Part 1.1

	CIP-005-6 Table R1 – Electronic Security Perimeter						
Part	Applicable Systems	Requirements	Measures				
1.1	High Impact BES Cyber Systems and their associated: • PCA Medium Impact BES Cyber Systems and their associated: • PCA	All applicable Cyber Assets connected to a network via a routable protocol shall reside within a defined ESP.	An example of evidence may include, but is not limited to, a list of all ESPs with all uniquely identifiable applicable Cyber Assets connected via a routable protocol within each ESP.				

Registered Entity Response (Required):

Compliance Narrative:

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Registered Entity Evidence (Required):

File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):				

Compliance Assessment Approach Specific to CIP-005-6, R1, Part 1.1

This section to be completed by the Compliance Enforcement Authority

Verify the Responsible Entity has documented one or more processes which require all applicable Cyber Assets connected to a network via a routable protocol to reside within a defined ESP.

Verify each Cyber Asset of an Applicable System that is connected to a network via a routable protocol resides within a defined ESP.

For each defined ESP, verify the identification of any associated PCA.

Notes to Auditor:

- 1. This Part is applicable to all high and medium impact BES Cyber Systems regardless of External Routable Connectivity.
- 2. Those Cyber Assets that are part of a high or medium impact BES Cyber System that are not connected to a network via a routable protocol need not reside within a defined ESP.
- 3. For Cyber Assets that are part of a high or medium impact BES Cyber System that do not reside within a defined ESP, the absence of a connection to a network via a routable protocol will be verified.
- 4. The reason to identify an ESP without External Routable Connectivity is to identify the PCA associated with the ESP.
- 5. In order to verify that each Cyber Asset residing within a defined ESP has been identified as either a BES Cyber Asset or as a PCA, it may be necessary to examine the ESP and conduct an inventory of network connections within the ESP.
- 6. The impact rating of Protected Cyber Assets is equal to the highest rated BES Cyber System in the same defined ESP.

Auditor Notes:			
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R1 Part 1.2

	CIP-005-6 Table R1 – Electronic Security Perimeter						
Part	Applicable Systems	Requirements	Measures				
1.2	High Impact BES Cyber Systems with External Routable Connectivity and their associated: • PCA	All External Routable Connectivity must be through an identified Electronic Access Point (EAP).	An example of evidence may include, but is not limited to, network diagrams showing all external routable communication paths and the identified EAPs.				
	Medium Impact BES Cyber Systems with External Routable Connectivity and their associated: • PCA						

Registered Entity Response (Required):

Compliance Narrative:

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Registered Entity Evidence (Required):

		Revision or	Document	Relevant Page(s) or	Description of Applicability
File Name	Document Title	Version	Date	Section(s)	of Document

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):			

Compliance Assessment Approach Specific to CIP-005-6, R1, Part 1.2

Verify the Responsible Entity has documented one or more processes which ensure all External Routable
Connectivity is through an identified Electronic Access Point (EAP).
Verify that all External Routable Connectivity is through an identified EAP.
For each defined ESP without an identified EAP, verify that no External Routable Connectivity exists.

Auditor	Notes:		

R1 Part 1.3

	CIP-005-6 Table R1 – Electronic Security Perimeter					
Part	Applicable Systems	Requirements	Measures			
1.3	Electronic Access Points for High Impact BES Cyber Systems Electronic Access Points for Medium Impact BES Cyber Systems	Require inbound and outbound access permissions, including the reason for granting access, and deny all other access by default.	An example of evidence may include, but is not limited to, a list of rules (firewall, access control lists, etc.) that demonstrate that only permitted access is allowed and that each access rule has a documented reason.			

Registered Entity Response (Required):

Compliance Narrative:

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Registered Entity Evidence (Required):

File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):				

Compliance Assessment Approach Specific to CIP-005-6, R1, Part 1.3

This section to be completed by the Compliance Enforcement Authority

	Verify the Responsible Entity has documented one or more processes which require inbound and			
	outbound access permissions, including the reason for granting access, and deny all other access by			
	default.			
	For each Applicable System, verify inbound and outbound access permissions are implemented.			
	For each Applicable System, verify each inbound and each outbound access permission includes the			
	reason for granting access.			
	For each Applicable System, verify inbound and outbound access is denied by default.			
No	Note to Auditor: Some vendor firewalls contain an implicit "deny" statement in the Access Control List			

Note to Auditor: Some vendor firewalls contain an implicit "deny" statement in the Access Control List (ACL). Vendor documentation of that configuration is a form of evidence to demonstrate the deny by default requirement within this Part.

Auditor Notes:	

R1 Part 1.4

	CIP-005-6 Table R1 – Electronic Security Perimeter						
Part	Applicable Systems	Requirements	Measures				
1.4	High Impact BES Cyber Systems with Dial-up Connectivity and their associated: • PCA Medium Impact BES Cyber Systems with Dial-up Connectivity and their associated: • PCA	Where technically feasible, perform authentication when establishing Dial-up Connectivity with applicable Cyber Assets.	An example of evidence may include, but is not limited to, a documented process that describes how the Responsible Entity is providing authenticated access through each dial-up connection.				

Registered Entity Response (Required):

Compliance Narrative:

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Registered Entity Evidence (Required):

File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):			

Compliance Assessment Approach Specific to CIP-005-6, R1, Part 1.4

This section to be completed by the Compliance Enforcement Authority

Verify the Responsible Entity has documented one or more processes to perform authentication when establishing Dial-up Connectivity with applicable Cyber Assets, where technically feasible.

For each Cyber Asset of an Applicable System, verify authentication is performed when establishing a dial-up connection, or that an approved Technical Feasibility Exception (TFE) covers the Cyber Asset.

If a TFE is applicable to this Part, verify the compensating measures identified by the TFE are implemented.

Note to Auditor:

If the Responsible Entity does not have or does not allow Dial-up Connectivity, the Responsible Entity is not required to document one or more processes to perform authentication when establishing Dial-up Connectivity with applicable Cyber Assets. It is sufficient to verify that they do not have Dial-up Connectivity.

Auditor	Notes:		

R1 Part 1.5

	CIP-005-6 Table R1 – Electronic Security Perimeter						
Part	Applicable Systems	Requirements	Measures				
1.5	Electronic Access Points for High Impact BES Cyber Systems Electronic Access Points for Medium Impact BES Cyber Systems at Control Centers	Have one or more methods for detecting known or suspected malicious communications for both inbound and outbound communications.	An example of evidence may include, but is not limited to, documentation that malicious communications detection methods (e.g. intrusion detection system, application layer firewall, etc.) are implemented.				

Registered Entity Response (Required):

Compliance Narrative:

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Registered Entity Evidence (Required):

The following information is requested for each document submitted as evidence. Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found. Relevant Revision Page(s) or Document or **Description of Applicability Document Title** of Document **File Name** Version Date Section(s)

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):			

Compliance Assessment Approach Specific to CIP-005-6, R1, Part 1.5

This section to be completed by the Compliance Enforcement Authority

Verify the Responsible Entity has documented one or more processes which include one or more
methods for detecting known or suspected malicious communications for both inbound and outbound
communications.
For each Applicable System, verify the Responsible Entity has implemented one or more methods for

For each Applicable System, verify the Responsible Entity has implemented one or more methods for detecting known or suspected malicious communications for both inbound and outbound communications.

Auditor	Notes:		

R2 Supporting Evidence and Documentation

- **R2.** Each Responsible Entity shall implement one or more documented processes that collectively include the applicable requirement parts, where technically feasible, in CIP-005-6 Table R2 –Remote Access Management. [Violation Risk Factor: Medium] [Time Horizon: Operations Planning and Same Day Operations].
- **M2.** Evidence must include the documented processes that collectively address each of the applicable requirement parts in *CIP-005-6 Table R2 Remote Access Management* and additional evidence to demonstrate implementation as described in the Measures column of the table.

R2 Part 2.1

	C	IP-005-6 Table R2 – Remote Access Man	agement
Part	Applicable Systems	Requirements	Measures
2.1	High Impact BES Cyber Systems and their associated: PCA Medium Impact BES Cyber Systems with External Routable Connectivity and their associated: PCA	For all Interactive Remote Access, utilize an Intermediate System such that the Cyber Asset initiating Interactive Remote Access does not directly access an applicable Cyber Asset.	Examples of evidence may include, but are not limited to, network diagrams or architecture documents.

Registered Entity Response (Required):

Compliance Narrative:

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Registered Entity Evidence (Required):

File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

Audit Team Evidence Reviewed	(This section to	be completed	by the C	ompliance l	Enforcement <i>i</i>	Authority):
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Compliance Assessment Approach Specific to CIP-005-6, R2, Part 2.1

Verify the Responsible Entity has documented one or more processes which require the utilization of an
Intermediate System such that the Cyber Asset initiating Interactive Remote Access does not directly
access an applicable Cyber Asset.
Verify all Interactive Remote Access utilizes an Intermediate System, or that an approved TFE covers this
circumstance.
Verify that the Cyber Asset initiating Interactive Remote Access does not directly access an applicable
Cyber Asset, or that an approved TFE covers this circumstance.
If a TFE is applicable to this Part, verify the compensating measures identified by the TFE are
implemented.

Auditor	Notes:	

R2 Part 2.2

	C	CIP-005-6 Table R2 – Remote Access Mar	nagement
Part	Applicable Systems	Requirements	Measures
2.2	High Impact BES Cyber Systems and their associated: • PCA Medium Impact BES Cyber Systems with External Routable Connectivity and their associated: • PCA	For all Interactive Remote Access sessions, utilize encryption that terminates at an Intermediate System.	An example of evidence may include, but is not limited to, architecture documents detailing where encryption initiates and terminates.

Registered Entity Response (Required):

Compliance Narrative:

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Registered Entity Evidence (Required):

File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):	

Compliance Assessment Approach Specific to CIP-005-6, R2, Part 2.2

Verify the Responsible Entity has documented one or more processes which utilize encryption that
terminates at an Intermediate System for all Interactive Remote Access sessions.
Verify all Interactive Remote Access utilizes encryption that terminates at an Intermediate System, or
that an approved TFE covers this circumstance.
If a TFE is applicable to this Part, verify the compensating measures identified by the TFE are
implemented.

Auditor Notes:						

R2 Part 2.3

	CIP-005-6 Table R2 – Remote Access Management						
Part	Applicable Systems	Requirements	Measures				
2.3	High Impact BES Cyber Systems and their associated: PCA Medium Impact BES Cyber Systems with External Routable Connectivity and their associated: PCA	Require multi-factor authentication for all Interactive Remote Access sessions.	An example of evidence may include, but is not limited to, architecture documents detailing the authentication factors used. Examples of authenticators may include, but are not limited to, • Something the individual knows such as passwords or PINs. This does not include User ID; • Something the individual has such as tokens, digital certificates, or smart cards; or • Something the individual is such as fingerprints, iris scans, or other biometric characteristics.				

Registered Entity Response (Required):

Compliance Narrative:

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Registered Entity Evidence (Required):

File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):				

Compliance Assessment Approach Specific to CIP-005-6, R2, Part 2.3

Verify the Responsible Entity has documented one or more processes which require multi-factor
authentication for all Interactive Remote Access sessions.
Verify all Interactive Remote Access sessions require multi-factor authentication, or that an approved
TFE covers this circumstance.
If a TFE is applicable to this Part, verify the compensating measures identified by the TFE are
implemented.

Auditor	Notes:		

R2 Part 2.4

	CIP-005-6 Table R2 – Remote Access Management							
Part	Applicable Systems	Requirements	Measures					
2.4	High Impact BES Cyber Systems and their associated: PCA Medium Impact BES Cyber Systems with External Routable Connectivity and their associated: PCA	Have one or more methods for determining active vendor remote access sessions (including Interactive Remote Access and system-to-system remote access).	Examples of evidence may include, but are not limited to, documentation of the methods used to determine active vendor remote access (including Interactive Remote Access and system-to-system remote access): • Methods for accessing logged or monitoring information to determine active vendor remote access sessions; • Methods for monitoring activity (e.g. connection tables or rule hit counters in a firewall, or user activity monitoring) or open ports (e.g. netstat or related commands to display currently active ports) to determine active system to system remote access sessions; or • Methods that control vendor initiation of remote access such as vendors calling and requesting a second factor in order to initiate remote access.					

Registered Entity Response (Required):

Compliance Narrative:

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Registered Entity Evidence (Required):

File Name	Document Title	Revision or Version	Document Date	Relevant Page(s) or Section(s)	Description of Applicability of Document

Aud	lit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):
	npliance Assessment Approach Specific to CIP-005-6, R2, Part 2.4 s section to be completed by the Compliance Enforcement Authority
	Verify the Responsible Entity has documented one or more processes which have one or more methods
	for determining active vendor remote access sessions (including Interactive Remote Access and system-
	to-system remote access).
	Verify all active vendor remote access sessions (including Interactive Remote Access and system-to-
	system remote access) can be determined, or that an approved TFE covers the active vendor remote
	access sessions that cannot be determined.
	If a TFE is applicable to this Part, verify the compensating measures identified by the TFE are
	implemented.
Aud	litor Notes:

R2 Part 2.5

	CIP-005-6 Table R2 – Remote Access Management						
Part	Applicable Systems	Requirements	Measures				
2.5	High Impact BES Cyber Systems and their associated: PCA Medium Impact BES Cyber Systems with External Routable Connectivity and their associated: PCA	Have one or more method(s) to disable active vendor remote access (including Interactive Remote Access and system-to-system remote access).	Examples of evidence may include, but are not limited to, documentation of the methods(s) used to disable active vendor remote access (including Interactive Remote Access and system-to-system remote access), such as: • Methods to disable vendor remote access at the applicable Electronic Access Point for system-to-system remote access; or • Methods to disable vendor Interactive Remote Access at the applicable Intermediate System.				

Registered Entity Response (Required):

Compliance Narrative:

Provide a brief explanation, in your own words, of how you comply with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Registered Entity Evidence (Required):

		Revision		Relevant Page(s)	
		or	Document	or	Description of Applicability
File Name	Document Title	Version	Date	Section(s)	of Document

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):	

Compliance Assessment Approach Specific to CIP-005-6, R2, Part 2.5

Verify the Responsible Entity has documented one or more processes which have one or more methods
to disable active vendor remote access (including Interactive Remote Access and system-to-system
remote access).
Verify all vendor remote access (including Interactive Remote Access and system-to-system remote
access) can be disabled, or that an approved TFE covers this circumstance.
If a TFE is applicable to this Part, verify the compensating measures identified by the TFE are
implemented.

Auditor	Notes:			

Additional Information:

Reliability Standard

The full text of CIP-005-6 may be found on the NERC Web Site (www.nerc.com) under "Program Areas & Departments", "Reliability Standards."

In addition to the Reliability Standard, there is an applicable Implementation Plan available on the NERC Web Site.

In addition to the Reliability Standard, there is background information available on the NERC Web Site.

Capitalized terms in the Reliability Standard refer to terms in the NERC Glossary, which may be found on the NERC Web Site.

Sampling Methodology

Sampling is essential for auditing compliance with NERC Reliability Standards since it is not always possible or practical to test 100% of either the equipment, documentation, or both, associated with the full suite of enforceable standards. The Sampling Methodology Guidelines and Criteria (see NERC website), or sample guidelines, provided by the Electric Reliability Organization help to establish a minimum sample set for monitoring and enforcement uses in audits of NERC Reliability Standards.

Regulatory Language

See FERC Order 706 See FERC Order 791 See FERC Order 829

Revision History for RSAW

Version	Date	Reviewers	Revision Description	
Draft1v0	05/17/2017	Posted for Public	Changes from CIP-005-5 RSAW:	
		Comment	Updated "Applicability of	
			Requirements" table	
			2. Changed CIP-005-5 to CIP-005-6	
			3. Changed "process(es)" to "processes" in	
			Part 1.1	
			4. Updated R2, M2 and Part 2.1	
			5. Added P2.4 and P2.5 to Findings table	
			6. Updated page footer with new audit ID	
			pattern, RSAW version, revision date	
			7. Added sections for Parts 2.4 and 2.5.	