#### **Standard Development Timeline**

This section is maintained by the drafting team -during the development of the standard and will be removed when the standard becomes effective.

#### **Development Steps Completed**

- 1. SAR posted for comment (March 20, 2008).
- 2. SC authorized moving the SAR forward to standard development (July 10, 2008).

**Note**: On May 8, 2012, NERC was alerted that the text contained in the Rationale box for Requirement R1 of CIP-011-1 appeared to be incomplete.

This revised draft corrects the text box size to display all of the text (none of the text was changed).

No other changes were made to this standard or any of the other CIP V5 standards currently posted.

3. First posting for 60-day formal comment period and concurrent ballot (November 2011).

#### **Description of Current Draft**

This is the firstsecond posting of Version 5 of the CIP Cyber Security Standards for a 4540-day formal comment period. An initial concept paper, Categorizing Cyber Systems — An Approach Based on BES Reliability Functions, was posted for public comment in July 2009. An early draft consolidating CIP-002 — CIP-009, numbered CIP-010-1 and CIP-011-1, was posted for public informal comment in May 2010. This version (Version 5)A first posting of Version 5 was posted in November 2011 for a 60-day comment period and first ballot. Version 5 reverts to the original organization of the standards with some changes and addresses the balance of the FERC directives in its Order 706, approving Version 1 of the standards. This posting for formal comment and parallel successive ballot addresses the comments received from the first posting and ballot.

Anticipated Actions	Anticipated Date
45-day Formal Comment Period with Parallel Initial Ballot	<del>11/03/2011</del>
3040-day Formal Comment Period with Parallel Successive Ballot	MarchApril 2012
Recirculation ballot	June 2012
BOT adoption	June 2012

#### **Effective Dates**

- 1. **1824** Months Minimum The Version 5 CIP Cyber Security Standards, except for CIP-003-5, Requirement R2, shall become effective on the later of JanuaryJuly 1, 2015, or the first calendar day of the seventhninth calendar quarter after the effective date of the order providing applicable regulatory approval. CIP-003-5, Requirement R2, shall become effective on the later of July 1, 2016, or the first calendar day of the 13th calendar quarter after the effective date of the order providing applicable regulatory approval. Notwithstanding any order to the contrary, CIP-002-4 through CIP-009-4 do not become effective, and CIP-002-3 through CIP-009-3 remain in effect and are not retired until the effective date of the Version 5 CIP Cyber Security Standards under this implementation plan.<sup>1</sup>
- 2. In those jurisdictions where no regulatory approval is required, the standards Version 5 CIP Cyber Security Standards, except for CIP-003-5, Requirement R2, shall become effective on the first day of the seventhninth calendar quarter following Board of Trustees Trustees' approval, and CIP-003-5, Requirement R2, shall become effective on the first day of the 13th calendar quarter following Board of Trustees' approval, or as otherwise made effective pursuant to the laws applicable to such ERO governmental authorities.

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<sup>&</sup>lt;sup>1</sup> In jurisdictions where CIP-002-4 through CIP-009-4 have not yet become effective according to their implementation plan (even if approved by order), this implementation plan and the Version 5 CIP Cyber Security Standards supersede and replace the implementation plan and standards for CIP-002-4 through CIP-009-4.

# **Version History**

Versio	on	Date	Action	Change Tracking
1		TBD	Developed to define the information protection requirements in coordination with other CIP standards and to address the balance of the FERC directives in its Order 706.	

#### **Definitions of Terms Used in Standard**

See the associated "Definitions of Terms Used in Version 5 CIP Cyber Security Standards," which consolidates and includes all newly defined or revised terms used in the proposed Version 5 CIP Cyber Security Standards.

When this standard has received ballot approval, the text boxes will be moved to the Application "Guidelines Sectionand Technical Basis" section of the Standard.

#### A. Introduction

1. Title: Cyber Security — Information Protection

2. Number: CIP-011-1

3. Purpose: Standard-CIP 011 1 requires that Responsible Entities have protection

controls in place To prevent unauthorized access to protect-BES Cyber System Information—by specifying information protection requirements in support of protecting BES Cyber Systems against compromise that could lead to misoperation or instability in the 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 Facilities described in 4.2.2
- 4.1.24.1.3 Generator Operator
- 4.1.34.1.4 Generator Owner
- 4.1.44.1.5 Interchange Coordinator
- 4.1.6 Load-Serving Entity that owns Facilities described in 4.2.1
- 4.1.54.1.7 Reliability Coordinator
- 4.1.64.1.8 <u>Transmission Operator</u>
- 4.1.74.1.9 Transmission Owner

#### 4.2. Facilities:

- 4.2.1 that are part of any of the following systems Load Serving Entity: One or more of the UFLS or UVLS Systems that are part of a Load shedding program required by a NERC or Regional Reliability Standard and that perform automatic load shedding under a common control system, without human operator initiation, of 300 MW or more.
- **4.2.14.2.2 Distribution Provider**: One or more of the Systems or programs designed, installed, and operated for the protection or restoration of the BES:
  - A UFLS program required by a NERC or Regional Reliability Standard

- A UVLS UVLS System that is part of a Load shedding program required by a NERC or Regional Reliability Standard and that performs automatic Load shedding under a common control system, without human operator initiation, of 300 MW or more
- A Special Protection System or Remedial Action Scheme required by a NERC or Regional Reliability Standard
- A Transmission Protection System required by a NERC or Regional Reliability Standard
- Its Transmission Operator's restoration plan
- 4.2.24.2.3 where the Generator Operator
- 4.2.34.2.4 Generator Owner
- 4.2.44.2.5 Interchange Coordinator
- **4.2.5 Load-Serving Entity** that owns Facilities that are part of any of the following systems or programs designed, installed, and operated for the protection or restoration of the BES:
  - A UFLS program required by a NERC or Regional Reliability Standard
  - A UVLS program required by a NERC or Regional Reliability Standard
- 4.2.6 **NERC**
- 4.2.7 Regional Entity
- 4.2.84.2.6 Reliability Coordinator
- 4.2.94.2.7 Transmission Operator
- 4.2.104.2.8 Transmission Owner

#### 4.3. Facilities:

- **4.3.1** Load Serving Entity: One or more Facilities that are part of any of the following systems or programs designed, installed, and operated for the protection of the BES:
  - A UFLS program required by a NERC or Regional Reliability Standard
  - A UVLS program required by a NERC or Regional Reliability Standard
- **4.3.2** Distribution Providers: One or more Facilities that are part of any of the following systems or programs designed, installed, and operated for the protection or restoration of the BES:
  - A UFLS program required by a NERC or Regional Reliability Standard
  - A UVLS program required by a NERC or Regional Reliability Standard
  - A Special Protection System or Remedial Action Scheme <u>is</u> required by a NERC or Regional Reliability Standard

- A Transmission Protection System that applies to Transmission where the Protection System is required by a NERC or Regional Reliability Standard
- Its Transmission Operator's restoration plan
- All other 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.
- 4.3.34.3.1 Responsible Entities: <u>listed in 4.1 other than Distribution</u>

  Providers and Load-Serving Entities: All BES Facilities.
- **4.3.44.3.2** Exemptions: The following are exempt from Standard CIP-011-1002-5:
  - **4.3.4.14.3.2.1** Cyber Assets at Facilities regulated by the Canadian Nuclear Safety Commission.
  - 4.3.4.24.3.2.2 Cyber Assets associated with communication networks and data communication links between discrete Electronic Security Perimeters.
  - 4.3.4.34.3.2.3 In nuclear plants, the systems 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.
  - **4.3.4.4** Responsible Entities that, in compliance with Standard CIP 002 5, identify that they have no BES Cyber Systems.

#### 5. Background:

Standard CIP-011-1 exists as part of a suite of CIP Standards related to cyber security. CIP-002-5 requires the initial identification and categorization of BES Cyber Systems. CIP-003-5, CIP-004-5, CIP-005-5, CIP-006-5, CIP-007-5, CIP-008-5, CIP-009-5, CIP-010-1, and CIP-011-1 require a minimum level of organizational, operational, and procedural controls to mitigate risk to BES Cyber Systems. This suite of CIP Standards is referred to as the *Version 5 CIP Cyber Security Standards*.

<u>Fach requirement opens Most requirements open</u> with, "Each Responsible Entity shall implement one or more documented [processes, plan, etc] that include the <u>required applicable</u> items in [Table Reference]." The referenced table requires the <u>specific elements applicable</u> items in the procedures for a common subject matter as <u>applicable</u>.

Measures for the initial requirement are simply the documented processes themselves. Measures in the table rows provide examples of evidence to show documentation and implementation of specific elements required applicable items in

the documented processes. A numbered list in the measure means the evidence example includes all of the items in the list. In contrast, a bulleted list provides multiple options of acceptable evidence. These measures serve to provide guidance to entities in acceptable records of compliance and should not be viewed as an all-inclusive list.

The term *documented processes* refers to a set of required instructions specific to the Responsible Entity and to achieve a specific outcome. This term does not <u>inferimply</u> any <u>particular</u> naming or approval structure beyond what is stated in the requirements. An entity should include as much as they feel necessary in their documented processes, but they must address the applicable requirements in the table.

The terms *program* and *plan* are sometimes used in place of *documented processes* where it makes sense and is commonly understood. For example, documented processes describing a response are typically referred to as *plans* (i.e., incident response plans and recovery plans). Likewise, a security plan can describe an approach involving multiple procedures to address a broad subject matter.

Similarly, the term *program* may refer to the organization's overall implementation of its policies, plans and procedures involving a subject matter. Examples in the <a href="Standardsstandards">Standards</a> include the personnel risk assessment program and the personnel training program. The full implementation of the CIP Cyber Security Standards could also be referred to as a program. However, the terms *program* and *plan* do not imply any additional requirements beyond what is stated in the <a href="Standards.standards.">Standards.standards.</a> Responsible Entities can implement common controls that meet requirements for multiple high and medium impact BES Cyber Systems. For example, a single training program could meet the requirements for training personnel across multiple BES Cyber Systems.

#### **Applicability Columns in Tables:**

Each table row has an applicability column to further define the scope to which a specific requirement row applies- to BES Cyber Systems and associated Cyber Assets. The CSO706 SDT adapted this concept from the National Institute of Standards and Technology ("NIST") Risk Management Framework as a way of applying requirements more appropriately based on impact and connectivity characteristics. The following conventions are used in the applicability column as described.

- All Responsible Entities Applies to all Responsible Entities listed in the Applicability section of the Standard. This requirement applies at an organizational level rather than individually to each BES Cyber System. Requirements having this applicability comprise basic elements of an organizational CIP cyber security program.
- High Impact BES Cyber Systems Applies to BES Cyber Systems categorized as
   High Impacthigh impact according to the CIP-002-5 identification and
   categorization processes. Responsible Entities can implement common controls

- that meet requirements for multiple High and Medium Impact BES Cyber Systems. For example, a single training program could meet the requirements for training personnel across multiple BES Cyber Systems.
- Medium Impact BES Cyber Systems Applies to BES Cyber Systems categorized as Medium Impactmedium impact according to the CIP-002-5 identification and categorization processes.
- Medium Impact BES Cyber Systems at Control Centers Only applies to BES
   Cyber Systems located at a Control Center and categorized as Medium Impact
   according to the CIP-002-5 identification and categorization processes.
- Low Impact BES Cyber Systems with External Routable Connectivity Applies to
  each Low Impact BES Cyber Systems with External Routable Connectivity
  according to the CIP-002-5 identification and categorization process, which
  includes all other BES Cyber Systems not categorized as High or Medium.
- Associated Electronic Access Control or Monitoring Systems Applies to each
  Electronic Access Control or Monitoring System associated with a corresponding
  High or Medium Impact BES Cyber Systems. high impact BES Cyber System or
  medium impact BES Cyber System in the applicability column. Examples include,
  but are not limited to firewalls, authentication servers, and log monitoring and
  alerting systems.
- Associated Physical Access Control Systems Applies to each Physical Access
  Control System associated with a corresponding High or Medium Impact BES
  Cyber Systemshigh impact BES Cyber System or medium impact BES Cyber
  System with External Routable Connectivity in the applicability column.
- Associated Protected Cyber Assets Applies to each Protected Cyber Asset
  associated with a corresponding High or Medium Impact BES Cyber Systemshigh
  impact BES Cyber System or medium impact BES Cyber System in the
  applicability column.
- Electronic Access Points Applies at Electronic Access Points (with External Routable Connectivity or dial-up connectivity) associated with a referenced BES Cyber System.
- Electronic Access Points with External Routable Connectivity Applies at
   Electronic Access Points with External Routable Connectivity. This excludes those
   Electronic Access Points with dial-up connectivity.
- Locally Mounted Hardware or Devices Associated with Defined Physical Boundaries — Applies to the locally mounted hardware (e.g. such as motion sensors, electronic lock control mechanisms, and badge readers) associated with a Defined Physical Boundary for High or Medium Impact BES Cyber Systems. These hardware and devices are excluded in the definition of Physical Access Control Systems.

#### Rationale - R1:

The intent of the information protection processes is to prevent unauthorized access to BES Cyber Systematry of Changes:

Requirement R4.1 was moved to the definition of BES Cyber System Information.

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#### Rationale - R1:

<u>The SDT's intent of the information protection program is to prevent unauthorized access to BES Cyber System Information.</u>

Summary of Changes: CIP 003-4 R4, R4.2, and R 4.3 have been moved to CIP 011 R1. CIP-003-4, Requirement R4.1 was

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

- **R1.** Each Responsible Entity shall implement one or more documented processes an information protection program that collectively include includes each of the applicable items in CIP-011-1 Table R1 Information Protection. [Violation Risk Factor: Medium] [Time Horizon: Operations Planning].]
- **M1.** Evidence must include each of or the applicable documented processes that collectively information protection program must include the applicable items in CIP-011-1 Table R1 Information Protection and additional evidence to demonstrate implementation as described in the Measures column of the table.

	CIP-011-1 Table R1 – Information Protection							
Part	Applicability Applicable BES Cyber Systems and associated Cyber Assets	Requirements	Measures					
1.1	High Impact BES Cyber Systems  Medium Impact BES Cyber Systems.  Associated Physical Access Control Systems  Associated Electronic Access Control or Monitoring Systems  Associated Protected Cyber Assets	One or more documented and implemented methods to identify BES Cyber System Information.	<ul> <li>Evidence may include, but is not limited to,</li> <li>Indications on information (e.g., labels) that identify it as BES Cyber System Information;</li> <li>Training materials that provide personnel with sufficient knowledge to recognize BES Cyber SecuritySystem Information; or</li> <li>Repository or designated electronic and physical location.</li> </ul>					
CIP-00	ence to prior version: 13-3 <sub>2</sub> R4 103-3 <sub>2</sub> R4.2	<b>Change Rationale:</b> The SDT removed the explicit requirement for classification as there was no requirement to have multiple levels of protection- (e.g., confidential, public, internal use only, etc.) This modification does not prevent having multiple levels of classification, allowing more flexibility for entities to incorporate the CIP information protection program into their normal business.						

	CIP-011-1 Table R1 – Information Protection						
Part	PartApplicable BES Cyber Systems and associated Cyber Assets	<del>Part</del> <u>Requirement</u>	<del>Part</del> <u>Measure</u>				
1.2	High Impact BES Cyber Systems  Medium Impact BES Cyber Systems.  Associated Physical Access Control Systems  Associated Electronic Access Control or Monitoring Systems  Associated Protected Cyber Assets	Access control One or more documented and handling implemented procedures for handling BES Cyber System Information—, including storage, transit, and use.	Evidence may include, but is not limited to:  Records indicating information—that BES Cyber System Information is stored, transported, and disposedhandled in a manner consistent with the entity's documented process; procedure; or  Records from an information management system containing electronic copiesProcedures for handling, which include topics such as the storage, transit, and use of BES Cyber System Information—with user access implemented on a need-to-know basis;  Hardcopies of information stored in a locked file cabinet with keys provided to only authorized individuals.				
	ence to prior version: 03-3 <sub>4</sub> R4	Change Rationale: The SDT removed the replaced it with "Implement handling an					
¿CIP-C	003-3 R5.3	protection that is required.					

	CIP-011-1 Table R1 – Information Protection							
Part	Part Applicable BES Cyber Systems and associated Cyber Assets	<del>Part</del> <u>Requirement</u>	<del>Part</del> <u>Measure</u>					
1.3	High Impact BES Cyber Systems  Medium Impact BES Cyber Systems  Associated Physical Access Control Systems  Associated Electronic Access Control or Monitoring Systems  Associated Protected Cyber Assets	Initially upon the effective date of the standard and atAt least once every calendar year thereafter, not to exceed 15 months between assessments, assess adherence to its BES Cyber System Information protection processprogram, document the assessment results, and implement an action plan to remediate deficiencies identified during the assessment.	Evidence may include, but is not limited to, once every calendar year, not to exceed 15 months between assessments, the documented review of adherence to its BES Cyber System Information protection program, assessment results, action plan, and evidence to demonstrate that the action plan was implemented.					
	nce to prior version: 3-3, R4.3	Change Rationale: No significant change	2S <u>.</u>					

#### Rationale - R2:

The intent of the mediaBES Cyber Asset reuse and disposal processes is to prevent the unauthorized dissemination of BES Cyber System Information upon media reuse or disposal.

- **R2.** Each Responsible Entity shall implement one or more documented processes that collectively include the applicable items in CIP-011-1 Table R2 <u>MediaBES Cyber Asset</u> Reuse and Disposal. [Violation Risk Factor: Lower] [Time Horizon: Operations Planning].
- **M2.** Evidence must include each of the applicable documented processes that collectively include each of the applicable items in CIP-011-1 Table R2 Media BES Cyber Asset Reuse and Disposal and additional evidence to demonstrate implementation as described in the Measures column of the table.

	CIP-011-1 Table R2 – Media BES Cyber Asset Reuse and Disposal						
Part	ApplicabilityApplicable BES Cyber Systems and associated Cyber Assets	Requirements	Measures				
2.1	High Impact BES Cyber Systems  Medium Impact BES Cyber Systems  Associated Physical Access Control Systems  Associated Electronic Access Control or Monitoring Systems  Associated Protected Cyber Assets	Prior to the release for reuse of applicable Cyber Assets that contain BES Cyber System Information (except in other high impact or medium impact BES Cyber Systems, Associated Physical Access Control Systems, Associated Electronic Access Control or Monitoring Systems, or Associated Protected Cyber Asset media <sup>2</sup> , the Responsible Entity shall take action to prevent the unauthorized retrieval of BES Cyber System Information from the media. Cyber Asset.  If an applicable Cyber Asset is removed from the Physical Security Perimeter prior to action taken to prevent the unauthorized retrieval of BES Cyber System Information, the responsible entity shall maintain chain of custody, which identifies who has possession of the device while it is outside of a Physical Security Perimeter.	Evidence may include, but is not limited to, records that indicate that:  • Records of actions taken to prevent unauthorized retrieval of BES Cyber Asset media was cleared System Information; or  • If removed from the Physical Security Perimeter prior to its reuse. action taken to prevent unauthorized retrieval of information, a chain of custody record that was maintained.				

<sup>&</sup>lt;sup>2</sup> For the purposes of this Standard, media should be considered to be any mass storage device onto which information from a BES Cyber Asset is recorded and stored electronically, including, but not limited to, magnetic tapes, optical disks, solid-state drives, and magnetic disks.

	CIP-011-1 Table R2 – MediaBES Cyber Asset Reuse and Disposal						
Part	ApplicabilityApplicable BES Cyber Systems and associated Cyber Assets	Requirements Measures					
Reference CIP-007-3	to prior version: R7.2	Change Rationale: (FERC Order 706 p. 706, paragraph Paragraph 631, the SDT the unauthorized retrieval of information "erase" since, depending on the media meet this goal.	clarified that the goal was to prevent on from the media, removing the word				

	CIP-011-1 Table R2 – Media Reuse and Disposal						
Part	ApplicabilityApplicable BES Cyber Systems and associated Cyber Assets	Requirements	Measures				

	CIP-011-1 Table R2 – Media Reuse and Disposal						
Part	Applicability Applicable BES Cyber Systems and associated Cyber Assets	Requirements	Measures				
2.2	High Impact BES Cyber Systems  Medium Impact BES Cyber Systems  Associated Physical Access Control Systems  Associated Electronic Access Control or Monitoring Systems  Associated Protected Cyber Assets	Prior to the disposal of BESapplicable Cyber Asset media Assets that contain BES Cyber System Information, the Responsible Entity shall destroy or take action to prevent the unauthorized retrieval of BES Cyber System Information from the media. Cyber Asset or destroy the data storage media.  If an applicable Cyber Asset is removed from the Physical Security Perimeter prior to action taken to prevent the unauthorized retrieval of BES Cyber System Information or destroying the data storage media, the responsible entity shall maintain chain of custody, which identifies who has possession of the device while it is outside of a Physical Security Perimeter.	Evidence may include, but is not limited to, records:  Records that indicate that BES Cyber Assetdata storage media was purged or destroyed prior to itsthe disposal, of a an applicable Cyber Asset;  Records of actions taken to prevent unauthorized retrieval of BES Cyber System Information prior to the disposal of a an applicable Cyber Asset;  Other records showing actions taken to prevent unauthorized retrieval such as encrypting, retaining in the Physical Security Perimeter; or  If removed from the Physical Security Perimeter prior to action taken to prevent unauthorized retrieval of information, chain of custody record that was maintained.				

	CIP-011-1 Table R2 – Media Reuse and Disposal							
Part	Applicability Applicable BES Cyber Systems and associated Cyber Assets	Requirements	Measures					
Reference CIP-007-3	e to prior version: 3. R7.1	Change Rationale: Consistent with FERG 631, the SDT clarified that the goal was of information from the media, removing on the media itself, erasure may not be The SDT also removed the requirement destruction/redeployment as this was so requirement and not a requirement in a	to prevent the unauthorized retrieval ag the word "erase" since, depending sufficient to meet this goal.  explicitly requiring records of een as demonstration of the existing					

#### C. Compliance

#### 1. Compliance Monitoring Process:

#### 1.1. Compliance Enforcement Authority:

- The Regional Entity; or
- If the Responsible Entity works for shall serve as the Compliance Enforcement Authority ("CEA") unless the Regional Entity, then the applicable entity is owned, operated, or controlled by the Regional Entity will establish an agreement with. In such cases the ERO or anothera Regional entity approved by the ERO and FERC (i.e. another Regional Entity) to be responsible for compliance enforcement.
- If the Responsible Entity is also a Regional Entity the ERO or a Regional Entity approved by the ERO and FERC or other applicable governmental authorities shall serve as the Compliance Enforcement Authority.
- If the Responsible Entity is NERC, a third-party monitor without vested interest in the outcome for NERCauthority shall serve as the Compliance Enforcement Authority CEA.

#### 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 Compliance Enforcement Authority may ask an entity to provide other evidence to show that it was compliant for the full time period since the last audit.

- Each Responsible Entity shall retain data or evidence for <u>each requirement in this standard</u> for three calendar years or for the duration of any regional or Compliance Enforcement Authority investigation; whichever is longer.
- If a Responsible Entity is found non-compliant, it shall keep information related to the non-compliance until found compliant mitigation is complete and approved or for the duration specified above, whichever is longer.
- The Compliance Enforcement Authority shall keep the last audit records and all requested and submitted subsequent audit records.

#### 1.3. Compliance Monitoring and Assessment Processes:

- Compliance Audit
- Self-Certification
- Spot Checking
- Compliance Investigation
- Self-Reporting
- Complaint

#### 1.4. Additional Compliance Information:

None

# **Table of Compliance Elements**

R #	Time	VRF	Violation Severity Levels			
	Horizon		Lower VSL	Moderate VSL	High VSL	Severe VSL
R1	Operations Planning	Medium	N/A	N/A The Responsible Entity has implemented a BES Cyber System Information protection program that includes one or more methods to identify BES Cyber System Information, one or more handling procedures for BES Cyber System Information, and has assessed adherence periodically as stated in Part 1.3, but has failed to implement an action plan to remediate deficiencies identified during the assessment.	The Responsible Entity has implemented one or morea BES Cyber System Information protection processes program that include includes one or more methods to identify BES Cyber System Information and one or more access control and handling procedures for BES Cyber System Information, but has failed to assess adherence, either initially upon the effective date of the standard or periodically as stated in Part 1.3, to its BES Cyber System Information protection processes program.	The Responsible Entity has not implemented one or morea BES Cyber System Information protection processes program.  OR The Responsible Entity has implemented one or morea BES Cyber System Information protection processes program, but has not included implemente d one or more methods to identify BES Cyber System Information OR The Responsible Entity has

R #	Time	VRF	Violation Severity Levels			
	Horizon		Lower VSL	Moderate VSL	High VSL	Severe VSL
						implemented one or morea BES Cyber System Information protection processes program, but has not included implemented one or more access control and handling procedures for handling BES Cyber System Information.
R2	Operations Planning	Lower	N/A	N/A  The Responsible Entity failed to maintain chain of custody for Cyber Assets that contain BES Cyber System Information that have been removed from the Physical Security Perimeter prior to action taken to prevent unauthorized retrieval or destroying the data storage media.	The Responsible Entity has documented or implemented one or more mediaprocesses, including both reuse and disposal or reuse processes, to prevent the unauthorized retrieval of BES Cyber System Information from the mediaBES Cyber Assets, but the media disposal or	The Responsible Entity has not documented or implemented any media-disposal or reuse processprocesses to prevent the unauthorized retrieval of BES Cyber System Information from the mediaBES Cyber Asset.

R #	Time Horizon	VRF	Violation Severity Levels				
			Lower VSL	Moderate VSL	High VSL	Severe VSL	
					reuse processes, including Responsible Entity either failed to take action to prevent the recording unauthorized retrieval of BES Cyber System Information from a Cyber Asset that contained BES Cyber System Information or failed to destroy the media purge or destruction, were not followed data storage media.		

# D. Regional Variances

None.

# **E.** Interpretations

None.

## F. Associated Documents

None.

#### **Guidelines and Technical Basis**

#### **Requirement R1:**

**Assumptions:** Responsible Entities are free to utilize existing change management and asset management systems. However, the information contained within thesethose systems must be evaluated, as the information protection requirements still apply.

This requirement mandates that BES Cyber System Information be identified. The Responsible Entity has flexibility in determining how to implement the requirement. For example, the Responsible Entity may decide to mark or label the documents. The Responsible Entity may retain all of the information about BES Cyber Systems in a separate repository or physical or electronic location with access control implemented for both the repository and the BES Cyber Assets. Additional methods for implementing the requirement are suggested in the measures section.

While separating BES Cyber System Information into separate classifications is not required as it was in version 4, responsible entities still have the Responsible Entity maintains that flexibility to do this if they so desire. desired. As long as the entity's Responsible Entity's information protection program includes all required elements applicable items, additional classification levels (e.g., confidential, public, internal use only, etc.) can be created that go above and beyond the requirements.

This The SDT does not intend that this requirement is not intended to cover publicly available information, such as vendor manuals that are available via public websites or information that is deemed to be publicly releasable.

Information protection pertains to both digital and hardcopy information. Information Topics that are appropriate for information handling procedures should detail include access, sharing, copying, transmittal, distribution, and disposal or destruction of BES Cyber System Information.

#### **Requirement R2:**

Media sanitization is generally classified into 4<u>four</u> categories: <u>disposal Disposal</u>, clearing, purging, and destroying. For the purposes of this requirement, disposal by itself, with the exception of certain special circumstances such as the use of strong encryption on a drive used in a SAN <u>or other media</u>, should never be considered acceptable. The use of clearing techniques may provide a suitable method of sanitization for media that is to be reused, whereas purging techniques may be more appropriate for media <u>whichthat</u> is ready for disposal. Entities are strongly encouraged to review NIST SP800-88 for guidance on how to develop acceptable media sanitization processes.

This requirement allows for BES Cyber Systems to be removed from service and analyzed with their media intact, as thisthat should not constitute a release for reuse. However, following the analysis, if the media is to be reused outside of a BES Cyber System or disposed of, it shouldmust be properly erasedcleared using a method to prevent the unauthorized retrieval of BES Cyber System Information from the media.

Application Guidelines							