

A. Introduction

1. **Title:** **Operating Personnel Credentials**
2. **Number:** **PER-003-2**
3. **Purpose:** To ensure that System Operators performing the reliability-related tasks of the Reliability Coordinator, Balancing Authority and Transmission Operator are certified through the NERC System Operator Certification Program when filling a Real-time operating position responsible for control of the Bulk Electric System.
4. **Applicability:**
 - 4.1. **Functional Entities:**
 - 4.1.1. Reliability Coordinator
 - 4.1.2. Transmission Operator
 - 4.1.3. Balancing Authority
5. **Effective Date:** See Implementation Plan for standard PER-003-2.

B. Requirements and Measures

- R1. Each Reliability Coordinator shall staff its Real-time operating positions performing Reliability Coordinator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining a valid NERC Reliability Operator certificate ⁽¹⁾⁽²⁾: *[Risk Factor: High][Time Horizon: Real-time Operations]*
 - 1.1. Areas of Competency
 - 1.1.1. Resource and demand balancing
 - 1.1.2. Transmission operations
 - 1.1.3. Emergency preparedness and operations
 - 1.1.4. System operations
 - 1.1.5. Protection and control
 - 1.1.6. Voltage and reactive
 - 1.1.7. Interchange scheduling and coordination
 - 1.1.8. Interconnection reliability operations and coordination

¹ Non-NERC certified personnel performing any reliability-related task of a real-time operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.

² The NERC certificates referenced in this standard pertain to those certificates identified in the NERC System Operator Certification Program Manual.

**Normes de fiabilité PER-003-2, PER-006-1,
PRC-001-1.1(ii) et leurs Annexes Québec en suivi de
modifications (version anglaise)**

- M1.** Each Reliability Coordinator shall have the following evidence to show that it staffed its Real-time operating positions performing reliability-related tasks with System Operators who have demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate:
- M1.1** A list of Real-time operating positions.
 - M1.2** A list of System Operators assigned to its Real-time operating positions.
 - M1.3** A copy of each of its System Operator's NERC certificate or NERC certificate number with expiration date which demonstrates compliance with the applicable Areas of Competency.
 - M1.4** Work schedules, work logs, or other equivalent evidence showing which System Operators were assigned to work in Real-time operating positions.
- R2.** Each Transmission Operator shall staff its Real-time operating positions performing Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates ⁽¹⁾⁽²⁾: *[Risk Factor: High][Time Horizon: Real-time Operations]*:
- 2.1. Areas of Competency**
 - 2.1.1.** Transmission operations
 - 2.1.2.** Emergency preparedness and operations
 - 2.1.3.** System operations
 - 2.1.4.** Protection and control
 - 2.1.5.** Voltage and reactive
 - 2.2. Certificates**
 - Reliability Operator
 - Balancing, Interchange and Transmission Operator
 - Transmission Operator
- M2.** Each Transmission Operator shall have the following evidence to show that it staffed its Real-time operating positions performing reliability-related tasks with System Operators who have demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate:

¹ Non-NERC certified personnel performing any reliability-related task of a real-time operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.

² The NERC certificates referenced in this standard pertain to those certificates identified in the NERC System Operator Certification Program Manual.

- M2.1** A list of Real-time operating positions.
- M2.2** A list of System Operators assigned to its Real-time operating positions.
- M2.3** A copy of each of its System Operator's NERC certificate or NERC certificate number with expiration date which demonstrates compliance with the applicable Areas of Competency.
- M2.4** Work schedules, work logs, or other equivalent evidence showing which System Operators were assigned to work in Real-time operating positions.
- R3.** Each Balancing Authority shall staff its Real-time operating positions performing Balancing Authority reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates ⁽¹⁾⁽²⁾: *[Risk Factor: High][Time Horizon: Real-time Operations]*:
- 3.1.** Areas of Competency
- 3.1.1.** Resources and demand balancing
- 3.1.2.** Emergency preparedness and operations
- 3.1.3.** System operations
- 3.1.4.** Interchange scheduling and coordination
- 3.2.** Certificates
- Reliability Operator
 - Balancing, Interchange and Transmission Operator
 - Balancing and Interchange Operator
- M3.** Each Balancing Authority shall have the following evidence to show that it staffed its Real-time operating positions performing reliability-related tasks with System Operators who have demonstrated the applicable minimum competency by obtaining and maintaining the appropriate, valid NERC certificate:
- M3.1** A list of Real-time operating positions.
- M3.2** A list of System Operators assigned to its Real-time operating positions.
- M3.3** A copy of each of its System Operator's NERC certificate or NERC certificate number with expiration date which demonstrates compliance with the applicable Areas of Competency.

¹ Non-NERC certified personnel performing any reliability-related task of a real-time operating position must be under the direct supervision of a NERC Certified System Operator stationed at that operating position; the NERC Certified System Operator at that operating position has ultimate responsibility for the performance of the reliability-related tasks.

² The NERC certificates referenced in this standard pertain to those certificates identified in the NERC System Operator Certification Program Manual.

- M3.4** Work schedules, work logs, or other equivalent evidence showing which System Operators were assigned to work in Real-time operating positions.

C. Compliance

1. Compliance Monitoring Process

1.1. Compliance Enforcement Authority:

“Compliance Enforcement Authority” means NERC or the Regional Entity, or any entity as otherwise designated by an Applicable Governmental Authority, in their respective roles of monitoring and/or enforcing compliance with mandatory and enforceable Reliability Standards in their respective jurisdictions.

1.2. Evidence Retention:

The following evidence retention period(s) 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.

The applicable entity shall keep data or evidence to show compliance as identified below unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation.

- Each Reliability Coordinator, Transmission Operator and Balancing Authority shall keep data or evidence for three years or since its last compliance audit, whichever time frame is the greatest.

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.

Violation Severity Levels

R #	Violation Severity Levels			
	Lower VSL	Moderate VSL	High VSL	Severe VSL
R1.	N/A	N/A	N/A	The Reliability Coordinator failed to staff each Real-time operating position performing Reliability Coordinator reliability-related tasks with a System Operator having a valid NERC certificate as defined in Requirement R1.
R2.	N/A	N/A	N/A	The Transmission Operator failed to staff each Real-time operating position performing Transmission Operator reliability-related tasks with a System Operator having a valid NERC certificate as defined in Requirement R2, Part 2.2.
R3.	N/A	N/A	N/A	The Balancing Authority failed to staff each Real-time operating position performing Balancing Authority reliability-related tasks with a System Operator having a valid NERC certificate as defined in Requirement R3, Part 3.2.

D. Regional Variances

None.

E. Associated Documents

[Implementation Plan](#)

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
1	February 17, 2011	Complete revision under Project 2007-04	Revision
1	February 17, 2011	Adopted by Board of Trustees	
1	September 15, 2011	FERC Order issued by FERC approving PER-003-1 (effective date of the Order is September 15, 2011)	
2	May 10, 2018	Added footnote to requirements	Revision
2	May 10, 2018	Adopted by Board of Trustees	Revision
2	November 21, 2018	FERC Letter Order approving PER-003-2. Docket No. RD18-9-000	

Appendix PER-003-2-QC-1

Specific provisions applicable in Québec for standard PER-003-2 – Operating Personnel Credentials

This appendix establishes specific provisions for the application of the standard in Québec. Provisions of the standard and of this appendix must be read jointly for comprehension and interpretation purposes. Where the standard and appendix differ, the appendix shall prevail.

A. Introduction

1. **Title:** No specific provisions.
2. **Number:** No specific provisions.
3. **Purpose:** No specific provisions.
4. **Applicability:**

4.1. Functional entities

No specific provisions.

5. Effective dates for Québec:

- 5.1. Adoption of the standard by the Régie de l'énergie: ~~Month xx, 20xx~~ May 28, 2021
- 5.2. Adoption of the appendix by the Régie de l'énergie: ~~Month xx, 20xx~~ May 28, 2021
- 5.3. Effective date of the standard and appendix for Québec: ~~Month xx, 20xx~~ July 1st, 2021

B. Requirements and measures

No specific provisions.

C. Compliance

1. Compliance Monitoring Process

1.1. Compliance Enforcement Authority

In Québec, "Compliance Enforcement Authority" means the Régie de l'énergie in its roles of monitoring and enforcing compliance with respect to the Reliability Standard and to this appendix.

1.2. Evidence Retention

No specific provisions.

1.3. Compliance Monitoring and Enforcement Program

The Régie de l'énergie establishes the monitoring processes used to evaluate data or information for the purpose of determining compliance or non-compliance with the Reliability Standard and with this appendix.

2. Violation Severity Levels

No specific provisions.

Appendix PER-003-2-QC-1

Specific provisions applicable in Québec for standard PER-003-2 – Operating Personnel Credentials

D. Regional Variances

No specific provisions.

E. Associated Documents

No specific provisions.

Version history

Version	Date	Action	Change tracking
1	Month xx, 20xx <u>May 28, 2021</u>	New attachment. <u>New appendix as per decision D-2021-070 and D-2021-070R.</u>	New

A. Introduction

1. **Title:** Specific Training for Personnel
2. **Number:** PER-006-1
3. **Purpose:** To ensure that personnel are trained on specific topics essential to reliability to perform or support Real-time operations of the Bulk Electric System.
4. **Applicability:**
 - 4.1. **Functional Entities:**
 - 4.1.1. Generator Operator that has:
 - 4.1.1.1. Plant personnel who are responsible for the Real-time control of a generator and receive Operating Instruction(s) from the Generator Operator's Reliability Coordinator, Balancing Authority, Transmission Operator, or centrally located dispatch center.
5. **Effective Date:** See Implementation Plan for Project 2007-06.2.

B. Requirements and Measures

- R1. Each Generator Operator shall provide training to personnel identified in Applicability section 4.1.1.1. on the operational functionality of Protection Systems and Remedial Action Schemes (RAS) that affect the output of the generating Facility(ies) it operates. *[Violation Risk Factor: Medium] [Time Horizon: Long-term Planning]*
- M1. Each Generator Operator shall have available for inspection, evidence that the applicable personnel completed training. This evidence may be documents such as training records showing successful completion of training that includes training materials, the name of the person, and date of training.

C. Compliance

1. **Compliance Monitoring Process**
 - 1.1. **Compliance Enforcement Authority:**

"Compliance Enforcement Authority" means NERC or the Regional Entity, or any entity as otherwise designated by an Applicable Governmental Authority, in their respective roles of monitoring and/or enforcing compliance with mandatory and enforceable Reliability Standards in their respective jurisdictions.
 - 1.2. **Evidence Retention:**

The following evidence retention period(s) 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.

The applicable entity shall keep data or evidence to show compliance as identified below unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation.

- The Generator Operator shall keep data or evidence of Requirement R1 for the current year and three previous calendar years.

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.

Violation Severity Levels

R #	Violation Severity Levels			
	Lower VSL	Moderate VSL	High VSL	Severe VSL
R1.	<p>The Generator Operator failed to provide training as described in Requirement R1 to the greater of:</p> <ul style="list-style-type: none"> • one applicable personnel at a single Facility, or • 5% or less of the total applicable personnel of the Generator Operator. 	<p>The Generator Operator failed to provide training as described in Requirement R1 to the greater of:</p> <ul style="list-style-type: none"> • two applicable personnel at a single Facility, or • more than 5% and less than or equal to 10% of the total applicable personnel of the Generator Operator. 	<p>The Generator Operator failed to provide training as described in Requirement R1 to the greater of:</p> <ul style="list-style-type: none"> • three applicable personnel at a single Facility, or • more than 10% and less than or equal to 15% of the total applicable personnel of the Generator Operator. 	<p>The Generator Operator failed to provide training as described in Requirement R1 to the greater of:</p> <ul style="list-style-type: none"> • five or more applicable personnel at a single Facility, or • more than 15% of the total applicable personnel of the Generator Operator. <p>OR</p> <p>The Generator Operator failed to provide training as described in Requirement R1 to its applicable personnel.</p>

D. Regional Variances

None.

E. Associated Documents

Project 2007-06.2 Implementation Plan¹

¹ http://www.nerc.com/pa/Stand/Project200706_2SystemProtectionCoordinationDL/Project_2007_06_2_Imp_Plan_Draft_1_2016_03_10_Clean.pdf

Version History

Version	Date	Action	Change Tracking
1	August 11, 2016	Adopted by the NERC Board of Trustees	New standard developed under Project 2007-06.2
1	June 7, 2018	FERC Order issued approving PER-006-1. Docket No. RM16-22-000.	
1	August 13, 2018	FERC Approved	
1	October 1, 2020	Effective Date	Effective dates delayed to April 1, 2021 due to COVID-19 per FERC Order
1	April 1, 2021	Effective Date	

Guidelines and Technical Basis

Requirement R1

The Generator Operator (GOP) monitors and controls its generating Facilities in Real-time to maintain reliability. To accomplish this, applicable plant personnel responsible for Real-time control of a generating Facility must be trained on how the operational functionality of Protection Systems and Remedial Action Schemes (RAS) are applied and the affects they may have on a generating Facility. Although, training does not have to be Facility-specific, the standard applies to plant operating personnel associated with the specific Facility to which they have Real-time control. This does not include plant personnel not responsible for Real-time control (e.g., fuel or coal handlers, electricians, machinists, or maintenance staff).

A periodicity for training is not specified in Requirement R1 because the GOP must ensure its plant personnel who have Real-time control of a generator are trained. The Generator Operator must also ensure it provides applicable training that results from changes to the operational functionality of the Protection Systems and Remedial Action Schemes that affect the output of the generation Facility(ies).

The phrase “operational functionality” focuses the training on how Protection Systems operate and prevent possible damage to Elements. It also addresses how RAS detects pre-determined BES conditions and automatically takes corrective actions.

Considerations for operational functionality may include, but are not limited to the following:

- Purpose of protective relays and RAS
- Zones of protection
- Protection communication systems (e.g., line current differential, direct transfer trip, etc.)
- Voltage and current inputs
- Station dc supply associated with protective functions
- Resulting actions – tripping/closing of breakers; tripping of a generator step-up (GSU) transformer; or generator ramping/tripping control functions

Requirement R1 focuses on the operational functionality of Protection Systems and Remedial Action Schemes specific to the generating plant and not the Bulk Electric System.

This requirement focuses on those systems that are related to the electrical output of the generator. Protective systems which trip breakers serving station auxiliary loads (e.g., such as pumps, fans, or fuel handling equipment) are not included in the scope of this training. Furthermore, protection of secondary unit substation (SUS) or low voltage switchgear transformers and relays protecting other downstream plant electrical distribution system components are not in the scope of this training, even if a trip of these devices might eventually result in a trip of the generating unit.

Rationale

Rationale for Requirement R1: Protection Systems and Remedial Action Schemes (RAS) are an integral part of reliable Bulk Electric System (BES) operation. This requirement addresses the reliability objective of ensuring that Generator Operator (GOP) plant operating personnel understand the operational functionality of Protection Systems and RAS and their effects on generating Facilities.

Appendix PER-006-1-QC-1

Specific provisions applicable in Québec for standard PER-006-1 – Specific Training for Personnel

This appendix establishes specific provisions for the application of the standard in Québec. Provisions of the standard and of this appendix must be read jointly for comprehension and interpretation purposes. Where the standard and appendix differ, the appendix shall prevail.

A. Introduction

1. **Title:** No specific provisions.
2. **Number:** No specific provisions.
3. **Purpose:** No specific provisions.
4. **Applicability:**

4.1. Functional Entities

No specific provisions in regard to applicable entities.

The Facilities subject to this standard are the Facilities of the Main Transmission System (RTP).

5. Effective dates for Québec:

- 5.1. Adoption of the standard by the Régie de l'énergie: ~~Month xx, 20xx~~ May 28, 2021
- 5.2. Adoption of the appendix by the Régie de l'énergie: ~~Month xx, 20xx~~ May 28, 2021
- 5.3. Effective date of the standard and appendix for Québec: ~~Month xx, 20xx~~ July 1st, 2023

B. Requirements and measures

No specific provisions.

C. Compliance

1. Compliance Monitoring Process

1.1. Compliance Enforcement Authority

In Québec, "Compliance Enforcement Authority" means the Régie de l'énergie in its roles of monitoring and enforcing compliance with respect to the Reliability Standard and to this appendix.

1.2. Evidence Retention

No specific provisions.

1.3. Compliance Monitoring and Enforcement Program

The Régie de l'énergie establishes the monitoring processes used to evaluate data or information for the purpose of determining compliance or non-compliance with the Reliability Standard and with this appendix.

2. Violation Severity Levels

Appendix PER-006-1-QC-1

Specific provisions applicable in Québec for standard PER-006-1 – Specific Training for Personnel

No specific provisions.

D. Regional Variances

No specific provisions.

E. Associated Documents

No specific provisions.

Guidelines and Technical Basis

In the application of this standard, all references to the terms “Bulk Electric System” or “BES” shall be replaced by the terms “Main Transmission System” or “RTP” respectively.

Rationale

In the application of this standard, all references to the terms “Bulk Electric System” or “BES” shall be replaced by the terms “Main Transmission System” or “RTP” respectively.

Version history

Version	Date	Action	Change tracking
1	Month xx, 20xx <u>May 28, 2021</u>	New attachment. <u>New appendix as per decision D-2021-070 and D-2021-070R.</u>	New

A. Introduction

1. **Title:** System Protection Coordination

2. **Number:** PRC-001-1.1(ii)

3. **Purpose:**

To ensure system protection is coordinated among operating entities.

4. **Applicability**

4.1. Balancing Authorities

4.2. Transmission Operators

4.3. Generator Operators

5. **Effective Date:**

See the Implementation Plan for PRC-001-1.1(ii).

B. Requirements

R1. Each Transmission Operator, Balancing Authority, and Generator Operator shall be familiar with the purpose and limitations of Protection System schemes applied in its area.

R2. Each Generator Operator and Transmission Operator shall notify reliability entities of relay or equipment failures as follows:

R2.1. If a protective relay or equipment failure reduces system reliability, the Generator Operator shall notify its Transmission Operator and Host Balancing Authority. The Generator Operator shall take corrective action as soon as possible.

R2.2. If a protective relay or equipment failure reduces system reliability, the Transmission Operator shall notify its Reliability Coordinator and affected Transmission Operators and Balancing Authorities. The Transmission Operator shall take corrective action as soon as possible.

R3. A Generator Operator or Transmission Operator shall coordinate new protective systems and changes as follows.

R3.1. Each Generator Operator shall coordinate all new protective systems and all protective system changes with its Transmission Operator and Host Balancing Authority.

- Requirement R3.1 is not applicable to the individual generating units of dispersed power producing resources identified through Inclusion I4 of the Bulk Electric System definition.

R3.2. Each Transmission Operator shall coordinate all new protective systems and all protective system changes with neighboring Transmission Operators and Balancing Authorities.

- R4.** Each Transmission Operator shall coordinate Protection Systems on major transmission lines and interconnections with neighboring Generator Operators, Transmission Operators, and Balancing Authorities.
- R5.** A Generator Operator or Transmission Operator shall coordinate changes in generation, transmission, load or operating conditions that could require changes in the Protection Systems of others:
 - R5.1.** Each Generator Operator shall notify its Transmission Operator in advance of changes in generation or operating conditions that could require changes in the Transmission Operator's Protection Systems.
 - R5.2.** Each Transmission Operator shall notify neighboring Transmission Operators in advance of changes in generation, transmission, load, or operating conditions that could require changes in the other Transmission Operators' Protection Systems.
- R6.** Each Transmission Operator and Balancing Authority shall monitor the status of each Special Protection System in their area, and shall notify affected Transmission Operators and Balancing Authorities of each change in status.

C. Measures

- M1.** Each Generator Operator and Transmission Operator shall have and provide upon request evidence that could include but is not limited to, revised fault analysis study, letters of agreement on settings, notifications of changes, or other equivalent evidence that will be used to confirm that there was coordination of new protective systems or changes as noted in Requirements 3, 3.1, and 3.2.
- M2.** Each Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, documentation, electronic logs, computer printouts, or computer demonstration or other equivalent evidence that will be used to confirm that it monitors the Special Protection Systems in its area. (Requirement 6 Part 1)
- M3.** Each Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, operator logs, phone records, electronic-notifications or other equivalent evidence that will be used to confirm that it notified affected Transmission Operator and Balancing Authorities of changes in status of one of its Special Protection Systems. (Requirement 6 Part 2)

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Responsibility

Regional Reliability Organizations shall be responsible for compliance monitoring.

1.2. Compliance Monitoring and Reset Time Frame

One or more of the following methods will be used to assess compliance:

- Self-certification (Conducted annually with submission according to schedule.)
- Spot Check Audits (Conducted anytime with up to 30 days notice given to prepare.)
- Periodic Audit (Conducted once every three years according to schedule.)
- Triggered Investigations (Notification of an investigation must be made within 60 days of an event or complaint of noncompliance. The entity will have up to 30 days to prepare for the investigation. An entity may request an extension of the preparation period and the extension will be considered by the Compliance Monitor on a case-by-case basis.)

The Performance-Reset Period shall be 12 months from the last finding of non-compliance.

1.3. Data Retention

Each Generator Operator and Transmission Operator shall have current, in-force documents available as evidence of compliance for Measure 1.

Each Transmission Operator and Balancing Authority shall keep 90 days of historical data (evidence) for Measures 2 and 3.

If an entity is found non-compliant the entity shall keep information related to the noncompliance until found compliant or for two years plus the current year, whichever is longer.

Evidence used as part of a triggered investigation shall be retained by the entity being investigated for one year from the date that the investigation is closed, as determined by the Compliance Monitor,

The Compliance Monitor shall keep the last periodic audit report and all requested and submitted subsequent compliance records.

1.4. Additional Compliance Information

None.

2. Levels of Non-Compliance for Generator Operators:

2.1. Level 1: Not applicable.

2.2. Level 2: Not applicable.

2.3. Level 3: Not applicable.

2.4. Level 4: Failed to provide evidence of coordination when installing new protective systems and all protective system changes with its Transmission Operator and Host Balancing Authority as specified in R3.1.

3. Levels of Non-Compliance for Transmission Operators:

3.1. Level 1: Not applicable.

3.2. Level 2: Not applicable.

3.3. Level 3: Not applicable.

3.4. Level 4: There shall be a separate Level 4 non-compliance, for every one of the following requirements that is in violation:

3.4.1 Failed to provide evidence of coordination when installing new protective systems and all protective system changes with neighboring Transmission Operators and Balancing Authorities as specified in R3.2.

3.4.2 Did not monitor the status of each Special Protection System, or did not notify affected Transmission Operators, Balancing Authorities of changes in special protection status as specified in R6.

4. Levels of Non-Compliance for Balancing Authorities:

4.1. Level 1: Not applicable.

4.2. Level 2: Not applicable.

4.3. Level 3: Not applicable.

4.4. Level 4: Did not monitor the status of each Special Protection System, or did not notify affected Transmission Operators, Balancing Authorities of changes in special protection status as specified in R6.

E. Regional Differences

None identified.

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
0	August 8, 2005	Removed “Proposed” from Effective Date	Errata
0	August 25, 2005	Fixed Standard number in Introduction from PRC-001-1 to PRC-001-0	Errata
1	November 1, 2006	Adopted by the NERC Board of Trustees	Revised
1.1	April 11, 2012	Errata adopted by the Standards Committee; (Capitalized “Protection System” in accordance with Implementation Plan for Project 2007-17 approval of revised definition of “Protection System”)	Errata associated with Project 2007-17
1.1	September 9, 2013	Informational filing submitted to reflect the revised definition of Protection System in accordance with the Implementation Plan for the revised term.	

1.1(i)	November 13, 2014	Adopted by the NERC Board of Trustees	Replaced references to Special Protection System and SPS with Remedial Action Scheme and RAS
1.1(ii)	February 12, 2015	Adopted by the NERC Board of Trustees	Standard revised in Project 2014-01: Applicability revised to clarify application of requirements to BES dispersed power producing resources
2	May 9, 2012	Adopted by Board of Trustees	Deleted Requirements R2, R5, and R6.
1.1(ii)	May 29, 2015	FERC Letter Order in Docket No. RD15-3-000 approving PRC-001-1.1(ii)	Modifications to adjust the applicability to owners of dispersed generation resources.

Rationale:

During development of this standard, text boxes were embedded within the standard to explain the rationale for various parts of the standard. Upon BOT approval, the text from the rationale text boxes was moved to this section.

Rationale for the Applicability Exclusion in Requirement R3.1

Coordination of new or changes to protective systems associated with dispersed power producing resources identified through Inclusion I4 of the BES definition are typically performed on the interconnecting facilities. New or changes to protective systems associated with these facilities should be coordinated with the TOP as these protective systems typically must be closely coordinated with the transmission protective systems to ensure the overall protection systems operates as designed. While the protective systems implemented on the individual generating units of dispersed power producing resources at these dispersed power producing facilities (i.e. individual wind turbines or solar panels/inverters) may in some cases need to be coordinated with other protective systems within the same dispersed power producing facility, new or changes to these protective systems do not need to be coordinated with the

transmission protective systems, as this coordination would not provide reliability benefits to the BES.

Appendix PRC-001-1.1(ii)-QC-1

Specific provisions applicable in Québec for standard PRC-001-1.1(ii) – System Protection Coordination

This appendix establishes specific provisions for the application of the standard in Québec. Provisions of the standard and of this appendix must be read jointly for comprehension and interpretation purposes. Where the standard and appendix differ, the appendix shall prevail.

A. Introduction

1. **Title:** No specific provisions.
2. **Number:** No specific provisions.
3. **Purpose:** No specific provisions.
4. **Applicability:**

No specific provisions in regard to the applicable entities.

The Facilities subject to this Standard are the Facilities of the Main Transmission System (RTP). This Standard also applies to non-RTP Facilities as specified in Requirements R3 (including parts R3.1 and R3.2) and R4.

5. **Effective date:**

- | | | |
|------|--|-----------------|
| 5.1. | Adoption of the standard by the Régie de l'énergie: | October 8, 2020 |
| 5.2. | Adoption of this appendix by the Régie de l'énergie: | October 8, 2020 |
| 5.3. | Effective date of the standard and of this appendix in Québec: | January 1, 2021 |

B. Requirements

Protection coordination as described in Requirements R3 (including Parts R3.1 and R3.2) and R4 also covers:

- Failure protection (or backup or emergency protection) for every RTP Element that trips a non-RTP Element to which it connects, if such protection exists.
- Failure protection (or backup or emergency protection) for every non-RTP Element that trips an RTP Element, if such protection exists.

In Requirement R6, the term "Special Protection System (SPS)" must be replaced with the term "Remedial Action Scheme (RAS)."

C. Measures

In measures M2 and M3, the term "Special Protection System (SPS)" must be replaced with the term "Remedial Action Scheme (RAS)."

D. Compliance

1. **Compliance Monitoring Process**

- 1.1. **Compliance Monitoring Responsibility**

In Québec, "Compliance Enforcement Authority" means the Régie de l'énergie in its roles of monitoring and enforcing compliance with respect to the Reliability Standard and to this appendix.

Appendix PRC-001-1.1(ii)-QC-1

Specific provisions applicable in Québec for standard PRC-001-1.1(ii) – System Protection Coordination

1.2. Compliance Monitoring and Reset Time Frame

No specific provisions.

1.3. Data Retention

No specific provisions.

1.4. Additional Compliance Information

No specific provisions.

2. Levels of Non-Compliance for Generator Operators

No specific provisions.

3. Levels of Non-Compliance for Transmission Operators

In Part 3.4.2, the term “Special Protection System (SPS)” must be replaced with the term “Remedial Action Scheme (RAS).”

4. Levels of Non-Compliance for Balancing Authorities

In Part 4.4, the term “Special Protection System (SPS)” must be replaced with the term “Remedial Action Scheme (RAS).”

E. Regional Differences

No specific provisions.

Rationale

No specific provisions.

Version history

Version	Date	Action	Change tracking
1	October 8, 2020	New appendix	New
<u>2</u>	<u>May 28, 2021</u>	<u>As of July 1, 2023, retirement of Requirements R1, R2, R5 and R6 as per decisions D-2021-070 and D-2021-070R.</u>	<u>Modification</u>