

C. Transmission Operation, cont.

Request to Develop or Modify Reliability Rules and Requirements (NYSRC Policy No. 1-7)

Submit request to herb@policyadvisorsllc.com via the NYSRC site www.nysrc.org

Item	Information
1. PRR No. & Title of Reliability Rule or Requirement change	PRR 142B Special Protection System (SPS)
2. Rule Change Requester Information	
Name	RRS
Organization	NYSRC
3. New rule or revision to existing rule?	Addition of a new requirement (i.e. Assessment #6) under B.2: Transmission System Planning Assessments Requirement 1.3.
4. Need for rule change, including advantages and disadvantages	<p>PRR establishes a new requirement under <i>B.2: Transmission System Planning Assessments Requirement 1.3</i> requiring the NYISO to perform, as part of their annual transmission review, an assessment of the interaction of existing and proposed SPS on the New York Control Area transmission system. This assessment shall include external to NYCA SPS that were previously identified to have an impact on NYCA.</p> <p>The addition of a requirement is due to the fact that there are no specific NYSRC Reliability Rules that cover SPS. NYSRC relies (primarily) on NPCC Directories and those Directories address mostly the design aspects of an SPS. Planning Design and Operating criteria assume that an SPS operates properly under contingency. Extreme Contingency assesses the misoperation of an SPS. However, there are no requirements that assess the interaction of existing and proposed RAS/SPS on the New York Control Area transmission system; especially on a re-occurring interval where system conditions continually change.</p>

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	<p><u>The existing Reliability Rules currently require, under Extreme Contingency Performance Assessment (Table B-3), an assessment of the following scenarios (as they relate to SPSs):</u></p> <ol style="list-style-type: none"> 1. <u>The failure of a circuit breaker to operate when initiated by an SPS after a fault on the following: transmission circuit, transformer, shunt device, generator, or bus section – followed by - failure of a Special Protection System, to operate when required.</u> 2. <u>The failure of a circuit breaker to operate when initiated by an SPS after opening of any circuit breaker or the loss of the following: transmission circuit, transformer, shunt device, generator, bus section or loss of any element – followed by - failure of a Special Protection System, to operate when required.</u> 3. <u>The operation or partial operation of a SPS for an event or condition for which it was not intended to operate.</u> <p><u>What is requested in this PRR goes beyond the current requirements where misoperation (or failure to operate) is followed by another misoperation (or failure to operate); for example: item #3 above done twice (sequentially).</u></p> <p>***</p> <p>Advantage: Avoidance of a possible 'land mine' where the current on-going propagation of the uses of SPS does not result in a reliability violation; or unrecognized and unwanted interaction between SPS in a real time (resulting in a possible Loss of Load event).</p> <p>Disadvantage: None</p>
<p>5. Related NYSRC rules</p>	

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6. Section A – Reliability Rule Elements	
1. Reliability Rule	B.2: Transmission System Planning Assessments
2. Associated NERC & NPCC Standards and Criteria	TPL-001 NPCC Directory 1
3. Applicability	No change.
7. Section B – Requirements	
Requirements	<p>B.2: Transmission System Planning Assessments</p> <p>R1. The NYISO shall conduct Transmission Reviews to demonstrate that the planned NYCA transmission system is in conformance with NYSRC transmission system planning requirements. Specifically, Transmission Reviews shall incorporate assessments for documenting NYISO compliance with Reliability Rule B.1, Requirements R1 through R4. Section 4, “NYSRC Procedure for NYCA Transmission Reviews” provides guidance for NYSRC Transmission Reviews.</p> <p>R1.1. The NYISO shall submit a NYCA Transmission Review annually to the Reliability Compliance Monitoring Subcommittee. The type of annual Transmission Review and submission schedule shall be in accordance with NPCC specifications.</p> <p>R1.2. The NYISO shall apply Local Area Operation Reliability Rules G.1 through G.3 requirements in all Transmission Review assessments.</p> <p>R1.3. Transmission Reviews shall incorporate the following five<u>six</u> assessments:</p> <ul style="list-style-type: none"> • Assessment 1: Thermal, voltage, and stability assessments in accordance with B.1 (R1). • Assessment 2: Extreme contingency assessments in accordance with B.1 (R2). • Assessment 3: Extreme system condition assessments in accordance with B.1 (R3). • Assessment 4: Fault current assessments in accordance with B.1 (R4).

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	<ul style="list-style-type: none"> Assessment 5: Impacts of planned system expansion or configuration facilities on the NYCA System Restoration Plan (NYCA SRP). Any impacts identified shall be described in terms of how and where the NYCA SRP may need to be modified, and made available to the NYISO Operating Group and the planning function of the appropriate Transmission Owners for consideration in the annual review and update of NYISO and Transmission Owner restoration plans as required by Reliability Rule F.1 requirements. <u>Assessment 6: Assessment of the interaction of existing and proposed SPS on the New York Control Area transmission system. This assessment shall include external to NYCA SPS that were previously identified to have an impact on NYCA.</u> <p><u>Interaction is defined as an N-1/-1 event(s) where misoperation (or failure to operate) of an SPS is followed by another misoperation (or failure to operate) of an SPS. Prior to testing for the second misoperation (or failure to operate), the system should be able to be returned to normal state limits utilizing allowable system adjustments as defined in Table B-1.</u></p> <p>R1.4 If the results of a Transmission Review indicate that the planned NYS Bulk Power System will not be in conformance with the Reliability Rule B.1 requirements, the Transmission Review shall incorporate a corrective action plan to achieve conformance.</p>
8. Section C – Compliance Elements	
1. Measures	Changes are not required.
2. Levels of Non-Compliance	Changes are not required.
3. Compliance Monitoring Process (See Policy 4):	Changes are not required.
3.1 Compliance Monitoring Responsibility	Changes are not required.
3.2 Reporting Frequency	Changes are not required.
3.3 Compliance Reporting Requirements	Changes are not required.
9. Implementation Plan	The NYISO shall revise appropriate procedures within 90 days of Executive Committee approval of PRR 142B.

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10. Comments	
11. Date Rule Adopted	
12. PRR Revision Dates	5/1/2019; 5/30/2019