

## Review of EOP-005-2—System Restoration from Blackstart Resources (Deferred/Filing 2)

<http://www.nerc.com/files/EOP-005-2.pdf>

### VRFs for Requirements R2, R5, R10, R11, and R17:

Standard, Requirement	Requirement Language	VRF Assignment	Original Guideline Explanation ( <u>from P. 28 of December 31, 2009 EOP filing</u> )	Comments
EOP-005-2, R2	Each Transmission Operator shall provide the entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan.	<u>Medium</u> <del>Lower</del>	A lower VRF was assigned to Requirements R2 and R5 which were seen as mainly administrative in nature.	<p>Citing a Guideline 4 concern, FERC is concerned that this requirement is more than purely administrative and might be better assigned a Medium VRF.</p> <p>Requirement R2 might appear administrative at first glance, but providing entities with a description of changes to the restoration plan is about more than the handover of a piece of paper; it's about alerting entities to changes in the actions they might be required to take. If an entity was not alerted to a change in its responsibilities and did not take appropriate action during restoration, that could</p>

				directly affect the electrical state or the capability of the bulk electric system, or the ability to effectively monitor and control the bulk electric system. Thus, the VRF remains appropriately raised to Medium.
EOP-005-2, R5	Each Transmission Operator shall have a copy of its latest Reliability Coordinator approved restoration plan within its primary and backup control rooms so that it is available to all of its System Operators prior to its implementation date.	Lower	A lower VRF was assigned to Requirements R2 and R5 which were seen as mainly administrative in nature.	<p>Citing a Guideline 4 concern, FERC is concerned that this requirement is more than purely administrative and might be better assigned a Medium VRF.</p> <p>Upon further review of all EOP VRF assignments, NERC has determined that the VRF should remain Lower, as originally proposed by the drafting team. Unlike EOP-005-2 R2, this requirement is simply about the possession of a document and is administrative. A Transmission Operator's ability to implement its plan is covered in R7 and thus is separate from the administrative requirement of having a copy of the</p>

				plan.
EOP-005-2, R10	<p>Each Transmission Operator shall include within its operations training program, annual System restoration training for its System Operators to assure the proper execution of its restoration plan. This training program shall include training on the following:</p> <p><b>R10.1.</b> System restoration plan including coordination with the Reliability Coordinator and Generator Operators included in the restoration plan.</p> <p><b>R10.2.</b> Restoration priorities.</p> <p><b>R10.3.</b> Building of cranking paths.</p> <p><b>R10.4.</b> Synchronizing (re-energized sections of the System).</p>	Medium	<p>A medium VRF was assigned to those requirements dealing with the 'infrastructure' required to support those requirements that received a high VRF. These items, while certainly important in their own right, were not seen as directly leading to BPS instability. Therefore, a medium VRF was assigned to Requirements R3, R4, R6, R9, R10, R11, R12, R13, R14, R15, R16, R17 and R18.</p>	<p>Citing a Guideline 1 concern, FERC suggested changing the VRF to a High assignment.</p> <p>NERC staff continues to support the drafting team's Medium VRF assignment. Failure to provide training, while important, would not directly lead to instability, etc. NERC staff believes the VRF assignment should remain a Medium.</p>
EOP-005-2, R11	<p>Each Transmission Operator, each applicable Transmission Owner, and each applicable Distribution Provider shall provide a</p>	Medium	<p>A medium VRF was assigned to those requirements dealing with the 'infrastructure'</p>	<p>Citing a Guideline 1 concern, FERC suggested changing the VRF to a High assignment.</p>

	<p>minimum of two hours of System restoration training every two calendar years to their field switching personnel identified as performing unique tasks associated with the Transmission Operator's restoration plan that are outside of their normal tasks.</p>		<p>required to support those requirements that received a high VRF. These items, while certainly important in their own right, were not seen as directly leading to BPS instability. Therefore, a medium VRF was assigned to Requirements R3, R4, R6, R9, R10, R11, R12, R13, R14, R15, R16, R17 and R18.</p>	<p>NERC staff continues to support the drafting team's Medium VRF assignment. Failure to provide training, while important, would not directly lead to instability, etc. NERC staff believes the VRF assignment should remain a Medium.</p>
EOP-005-2, R17	<p>Each Generator Operator with a Blackstart Resource shall provide a minimum of two hours of training every two calendar years to each of its operating personnel responsible for the startup of its Blackstart Resource generation units and energizing a bus. The training program shall include training on the following:</p> <p><b>R17.1.</b> System restoration plan including coordination with the Transmission Operator.</p>	Medium	<p>A medium VRF was assigned to those requirements dealing with the 'infrastructure' required to support those requirements that received a high VRF. These items, while certainly important in their own right, were not seen as directly leading to BPS instability. Therefore, a medium VRF was assigned to Requirements R3, R4, R6, R9, R10, R11, R12, R13, R14, R15,</p>	<p>Citing a Guideline 1 concern, FERC suggested changing the VRF to a High assignment.</p> <p>NERC staff continues to support the drafting team's Medium VRF assignment. Failure to provide training, while important, would not directly lead to instability, etc. NERC staff believes the VRF assignment should remain a Medium.</p>

	<b>R17.2.</b> The procedures documented in Requirement R14.		R16, R17 and R18.	
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### VSLs for Requirement R2:

Standard, Requirement	Requirement Language	Lower	Moderate	High	Severe	Comments
EOP-005-2, R2	Each Transmission Operator shall provide the entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan.	<p>The Transmission Operator failed to provide one of the entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan.</p> <p>OR</p> <p>The Transmission Operator provided the information to all entities but was up to <del>30</del><u>10</u> calendar days late</p>	<p>The Transmission Operator failed to provide two of the entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan.</p> <p>OR</p> <p>The Transmission Operator provided the information to all entities but was more than <del>30</del><u>10</u> and less than or</p>	<p>The Transmission Operator failed to provide three of the entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan.</p> <p>OR</p> <p>The Transmission Operator provided the information to all entities but was more than <del>40</del><u>20</u></p>	<p>The Transmission Operator failed to provide four or more of the entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan.</p> <p>OR</p> <p>The Transmission Operator provided the information to all entities but was more than <del>50</del><u>30</u></p>	<p>Citing a Guideline 1 violation, FERC expressed concern that starting the Lower VSL at 30 days late was inappropriate and too large a time frame to begin with.</p> <p>NERC staff reviewed the VSL language. Because neither the requirements nor the measures reference a specific time frame or acceptable delay, NERC staff agrees that the 30-day starting point was</p>

		in doing so.	equal to <del>4020</del> calendar days late in doing so.	and less than or equal to <del>5030</del> calendar days late in doing so.	calendar days late in doing so.	not appropriate and modified the VSLs accordingly.
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**Original Guideline Explanation for R2 VSLs in [December 1, 2010 VSL Filing 2](#):**

In accordance with Guideline 2, the VSLs were modified from the previously filed version of this standard.

- *Guideline 1:* P. 878-890 of Guideline 1 Analysis in [March 5, 2012 VSL Filing 1](#)
- *Guideline 2:* In accordance with Guideline 2, the VSL assignments were modified to increase by ten-day increments for consistency with other VSLs. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Therefore, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.
- *Guideline 3:* NERC compared the existing VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the reliability goal of the requirement. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.
- *Guideline 4:* The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.

**VSLs for Requirement R16:**

Standard, Requirement	Requirement Language	Lower	Moderate	High	Severe	Comments
EOP-005-2, R16	Each Generator Operator with a Blackstart Resource shall	The <del>Generator Operator</del> <u>GOP</u> with a Blackstart Resource <del>did not</del>	The <del>Generator Operator</del> <u>GOP</u> with a Blackstart Resource <del>did not</del>	The <del>Generator Operator</del> <u>GOP</u> with a Blackstart Resource	The Generator Operator with a <del>maintain testing records for a</del>	Citing a Guideline 3 violation, FERC said that R16’s subrequirements

	<p>perform Blackstart Resource tests, and maintain records of such testing, in accordance with the testing requirements set by the Transmission Operator to verify that the Blackstart Resource can perform as specified in the restoration plan.</p> <p><b>R16.1.</b> Testing records shall include at a minimum: name of the Blackstart Resource, unit tested, date of the test, duration of the test, time required to start the unit, an indication of any testing requirements not met under Requirement R9.</p>	<p><del>maintain testing performed tests and maintained records for one but the records did not include all of the requirements for a Blackstart Resource. r. items in R16.1.</del></p> <p><u>OR</u></p> <p><u>The Generator Operator</u> did not supply the Blackstart Resource testing records as requested <del>within 59</del> <u>for 31 to 60</u> calendar days of the request.</p>	<p><del>maintain testing performed tests and maintained records for two of the requirements for a Blackstart Resource. r</del> but did not supply the Blackstart Resource testing records as requested for <del>60</del> <u>61</u> days to <del>89</del> <u>90</u> calendar days after the request.</p>	<p><u>performed tests but either</u> did not maintain <del>testing</del> records <del>for three of the requirements for a Blackstart Resource. r</del> or did not supply the Blackstart Resource testing records as requested <del>for 90 to 119</del> <u>within 91 or more</u> calendar days after the request.</p>	<p>Blackstart Resource. r did not <del>supply the perform</del> Blackstart Resource <del>testing records as tests..</del> requested <del>for 120 days or more after the request.</del></p>	<p>(R16.1 and R16.2) were not appropriately addressed in the VSLs.</p> <p>NERC staff agreed with these concerns, and also noted that the VSLs included some sentence fragments and interval issues. It has attempted to correct all of these issues in the redline VSLs.</p>
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	<p><b>R16.2.</b> Each Generator Operator shall provide the blackstart test results within 30 calendar days following a request from its Reliability Coordinator or Transmission Operator.</p>					
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**Original Guideline Explanation for R16 VSLs in [December 1, 2010 VSL Filing 2](#):**

In accordance with Guideline 2, the VSLs from the previously filed version 2 of this standard were modified for clarity and consistency with other standards and VSLs and carry over for this standard.

- *Guideline 1:* P. 878-890 of Guideline 1 Analysis in [March 5, 2012 VSL Filing 1](#)
- *Guideline 2:* The VSLs were modified for clarity and consistency with other standards and VSLs. Additionally, NERC has reviewed the VSL text and has determined that, as written, the VSL text is clear, specific and objective and does not contain general, relative or subjective language satisfying Guideline 2b. Therefore, the text is not subject to the possibility of multiple interpretations of the VSL(s) and provides the clarity needed to permit the consistent and objective application of the VSL(s) in the determination of penalties by the Compliance Enforcement Authority.
- *Guideline 3:* NERC compared the existing VSLs to the stated requirement language to ensure the VSLs do not redefine or undermine the reliability goal of the requirement. In accordance with Guideline 3, the VSL assignments are consistent with the requirement and the degree of compliance can be determined objectively and with certainty.
- *Guideline 4:* The VSL assignments comply with Guideline 4, because they are based on a single violation of a Reliability Standard and are not based on a cumulative number of violations of the same requirement over a period of time.