Review of EOP-008-1—Loss of Control Center Functionality (Deferred)

http://www.nerc.com/files/EOP-008-1.pdf

VRFs for Requirement R1:

Standard, Requirement	Requirement Language	VRF Assignment	Comments
EOP-008-1, R1	Each Reliability Coordinator, Balancing Authority,	Medium	FERC cited a possible inconsistency
	and Transmission Operator shall have a current		with Guideline 3, stating that EOP-
	Operating Plan describing the manner in which it		005-2, R1 addresses the same risk
	continues to meet its functional obligations with		but is assigned a High VRF.
	regard to the reliable operations of the BES in the		
	event that its primary control center functionality is		NERC staff does not believe that
	lost. This Operating Plan for backup functionality		the comparison between EOP-005-
	shall include the following, at a minimum:		2, R1 and EOP-008-1, R1 is an
			equitable one. EOP-005-2, R1 deals
	1.1 The location and method of implementation for		with the restoration plan for the
	providing backup functionality for the time it takes		primary control center. EOP-008-1,
	to restore the primary control center functionality.		R1 deals with the backup facility.
			The capability of the backup facility
	1.2. A summary description of the elements		is not a primary measure for
	required to support the backup functionality. These		reliable operations, and not having
	elements shall include, at a minimum:		an Operating Plan for the backup
			facility could not cause or directly
	1.2.1. Tools and applications to ensure that System		contribute to instability,
	Operators have situational awareness of the BES.		separation, or Cascading. Failing to
			have a backup facility that provides
	1.2.2. Data communications.		the same functionality as the
			primary facility, covered in EOP-
	1.2.3. Voice communications.		008-1 R3 and R4, could cause or
			directly contribute to instability,
	1.2.4. Power source(s).		separation, or Cascading, and NERC
			is appropriately proposing that
	1.2.5. Physical and cyber security.		those VRFs be raised to High. For

	these reasons, NERC believes that
1.3. An Operating Process for keeping the backup	the VRF assignment for R1 should
functionality consistent with the primary control	remain Medium.
center.	
1.4. Operating Procedures, including decision	
authority, for use in determining when to	
implement the Operating Plan for backup	
functionality.	
Tunctionality.	
1.5. A transition period between the loss of primary	
control center functionality and the time to fully	
· · · · · · · · · · · · · · · · · · ·	
implement the backup functionality that is less than	
or equal to two hours.	
4.C. An Onematina Durance describina the estimate	
1.6. An Operating Process describing the actions to	
be taken during the transition period between the	
loss of primary control center functionality and the	
time to fully implement backup functionality	
elements identified in Requirement R1, Part 1.2.	
The Operating Process shall include at a minimum:	
1.6.1. A list of all entities to notify when there is a	
change in operating locations.	
1.6.2. Actions to manage the risk to the BES during	
the transition from primary to backup functionality	
as well as during outages of the primary or backup	
functionality.	
1.6.3. Identification of the roles for personnel	
involved during the initiation and implementation	
of the Operating Plan for backup functionality.	

Original R1 Guideline Explanation in February 11, 2011 EOP-008-1 Petition:

- Guideline 2 (Consistency within a Reliability Standard): The requirement has no sub-requirements so only one VRF was assigned. Therefore, there is no conflict.
- Guideline 3 (Consistency among Reliability Standards): There is a similar requirement (Requirement R1) in proposed EOP-005-2 that is assigned a High VRF. The requirements are viewed as similar since they both refer to the creation of a plan: EOP-005-2 for a restoration plan and EOP-008-1 for a backup plan. The VRF assigned to EOP-008-1, Requirement R1 is lower than EOP-005-2, Requirement R1. The SDT recognizes that the VRF for EOP-008-1, Requirement R1 is lower than the VRF for the similar requirement in EOP-005-2 which is assigned a High VRF, however, the SDT and stakeholders support the Medium VRF based on NERC's criteria for VRFs. The assignment of the Medium VRF was made based on the premise that failure to have an Operating Plan for backup functionality, by itself, would not directly cause or contribute to BPS instability, separation, or a cascading sequence of failures. For a requirement to be assigned a "High" VRF there should be the expectation that failure to meet the required performance "will" result in instability, separation, or cascading failures. This is not the case when an applicable entity fails to create an Operating Plan for backup functionality. While the SDT agrees that, under some circumstances, it is possible that a failure to have an Operating Plan for backup functionality may put the applicable entity in a position where it is not as prepared as it should be to address the potential situation, the failure to have an Operating Plan for backup functionality would not, by itself, result in instability, separation, or cascading failures. If the applicable entity failed to have an Operating Plan for backup functionality, it would still be expected to handle the situation if it occurred.
- Guideline 4 (Consistency with NERC's Definition of a VRF): Failure to have an Operating Plan for backup functionality could directly affect the electrical state or the capability of the BPS, and could affect the applicable entity's ability to effectively monitor and control the BPS. However, violation of this requirement is unlikely to lead to BPS instability, separation, or cascading failures. The applicable entities are always responsible for maintaining the reliability of the BPS regardless of the situation. Thus, this requirement meets NERC's criteria for a Medium VRF. Failure to have an Operating Plan for backup functionality will not, by itself, lead to instability, separation, or cascading failures.
- Guideline 5 (Treatment of Requirements that Co-mingle More Than One Objective): EOP-008-1, Requirement R1 contains only one objective, therefore only one VRF was assigned.

VRFs for Requirement R2:

Standard, Requirement	Requirement Language	VRF Assignment	Comments
EOP-008-1, R2	Each Reliability Coordinator, Balancing Authority,	Lower	Citing a Guideline 4 concern, FERC
	and Transmission Operator shall have a copy of its		pointed out that the requirement

current Operating Plan for backup functionality available at its primary control center and at the	may not be purely administrative.
location providing backup functionality.	Similar to its comments for EOP-005-2, R5, NERC staff maintains that this requirement is purely administrative and could not, in and of itself, affect the capability of the BES. It is simply about the possession of a document; the actual functionality of the backup facility is addressed in R3 and R4. The VRF should remain Lower.

Original R2 Guideline Explanation in February 11, 2011 EOP-008-1 Petition:

- Guideline 2 (Consistency within a Reliability Standard): The requirement has no sub-requirements so only one VRF was assigned. Therefore, there is no conflict.
- Guideline 3 (Consistency among Reliability Standards): EOP-008-1, Requirement R2 is a new requirement, so there are no comparable requirements with which to compare VRFs.
- Guideline 4 (Consistency with NERC's Definition of a VRF): Failure to have a copy of the Operating Plan for backup functionality at each of its control locations should not have an adverse impact on the BPS because operations at the different locations should be essentially identical. This is mainly an administrative requirement and thus meets NERC's criteria for a Lower VRF.
- Guideline 5 (Treatment of Requirements that Co-mingle More Than One Objective): EOP-008-1, Requirement R2 contains only one objective, therefore only one VRF was assigned.

VRFs for Requirement R3:

Standard, Requirement	Requirement Language	VRF Assignment	Comments
EOP-008-1, R3	Each Reliability Coordinator shall have a backup	<u>High</u> Medium	Citing a possible Guideline 1 issue,
	control center facility (provided through its own		FERC expressed concern that R3
	dedicated backup facility or at another entity's		deals with the failure to have a

control center staffed with certified Reliability	backup control center, leading to a
Coordinator operators when control has been	reduced level of preparedness,
transferred to the backup facility) that provides the	which ties to the blackout report
functionality required for maintaining compliance	and should be a High VRF.
with all Reliability Standards that depend on	
primary control center functionality. To avoid	NERC staff agrees that this reduced
requiring a tertiary facility, a backup facility is not	level of preparedness does tie to
required during:	the blackout report and merits a
Planned outages of the primary or backup	High VRF assignment for R3.
facilities of two weeks or less	
Unplanned outages of the primary or	
backup facilities	

Original R3 Guideline Explanation in February 11, 2011 EOP-008-1 Petition:

- Guideline 2 (Consistency within a Reliability Standard): The requirement has no sub-requirements so only one VRF was assigned. Therefore, there is no conflict.
- Guideline 3 (Consistency among Reliability Standards): EOP-008-1, Requirement R3 is a new requirement, so there are no comparable requirements in other standards with which to compare VRFs. However, the SDT did assign the same VRF to EOP-008-1, Requirement R4 which is a similar requirement applying to Transmission Operators and Balancing Authorities. The assignment of the "Medium" VRF was made based on the premise that failure to have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center), by itself, would not directly cause or contribute to BPS instability, separation, or a cascading sequence of failures. The Reliability Coordinator is always responsible for maintaining the reliability of the BPS regardless of the situation. For a requirement to be assigned a "High" VRF, there should be the expectation that failure to meet the required performance "will" result in instability, separation, or cascading failures. This is not the case when a Reliability Coordinator fails to have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center). The SDT agrees that if the Reliability Coordinator fails to have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center), this failure will put the Reliability Coordinator in a position where they are not as prepared as they should be to address the situation. However, even if the Reliability Coordinator failed to have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center), the Reliability Coordinator is still required to maintain control and awareness of the BPS. In addition, the Transmission Operators and Balancing Authorities who report to the affected Reliability

- Coordinator would still be expected to be operating in 'normal' mode thus providing comprehensive coverage of the BPS in the timeframe where the Reliability Coordinator has a problem.
- Guideline 4 (Consistency with NERC's Definition of a VRF): Failure to have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center) will impact the situational awareness of the Reliability Coordinator, and thus could affect the Reliability Coordinator's ability to effectively monitor and control the BPS, however violation of this requirement is unlikely to lead to BPS instability, separation or cascading failures. The Reliability Coordinator is required to maintain control and awareness of the BPS at all times. In addition, the Transmission Operators and Balancing Authorities who report to the affected Reliability Coordinator would still be expected to be operating in 'normal' mode thus providing comprehensive coverage of the BPS in the timeframe where the Reliability Coordinator has a problem. Therefore, the failure of a Reliability Coordinator to have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center) should not directly result in instability, separation, or cascading failures. Thus, this requirement meets the criteria for a Medium VRF.
- Guideline 5 (Treatment of Requirements that Co-mingle More Than One Objective): EOP-008-1, Requirement R3 contains only one objective, therefore only one VRF was assigned.

VRFs for Requirement R4:

Standard, Requirement	Requirement Language	VRF Assignment	Comments
EOP-008-1, R4	Each Balancing Authority and Transmission	<u>High</u> Medium	Citing a possible Guideline 1 issue,
	Operator shall have backup functionality (provided		FERC expressed concern that R4
	either through a facility or contracted services		deals with the failure to have a
	staffed by applicable certified operators when		backup control center, leading to a
	control has been transferred to the backup		reduced level of preparedness,
	functionality location) that includes monitoring,		which ties to the blackout report
	control, logging, and alarming sufficient for		and should be a High VRF.
	maintaining compliance with all Reliability		
	Standards that depend on a Balancing Authority		NERC staff appreciates the value in
	and Transmission Operator's primary control center		having consistency between R3 and
	functionality respectively. To avoid requiring		R4, and can support changing this
	tertiary functionality, backup functionality is not		VRF assignment to High.
	required during:		
	 Planned outages of the primary or backup 		
	facilities of two weeks or less		

Unplanned outages of the primary or	
backup facilities	

Original R4 Guideline Explanation in February 11, 2011 EOP-008-1 Petition:

- Guideline 2 (Consistency within a Reliability Standard): The requirement has no sub-requirements so only one VRF was assigned. Therefore, there is no conflict.
- Guideline 3 (Consistency among Reliability Standards): EOP-008-1, Requirement R4 is a new requirement, so there are no comparable requirements in other standards with which to compare VRFs. However, the SDT did assign the same VRF to EOP-008-1, Requirement R3 which is a similar requirement applying to Reliability Coordinators. The assignment of the "Medium" VRF was made based on the premise that failure to have backup functionality (provided either through a facility or contracted services), by itself, would not directly cause or contribute to BPS instability, separation, or a cascading sequence of failures. The Transmission Operator and Balancing Authority are always responsible for maintaining the reliability of the BPS regardless of the situation. For a requirement to be assigned a "High" VRF, there should be the expectation that failure to meet the required performance "will" result in instability, separation, or cascading failures. This is not the case when a Transmission Operator or Balancing Authority fails to have backup functionality (provided either through a facility or contracted services). The SDT agrees that if the Transmission Operator or Balancing Authority fails to have backup functionality (provided either through a facility or contracted services), this failure will put the Transmission Operator or Balancing Authority in a position where they are not as prepared as they should be to address the situation. However, even if the Transmission Operator or Balancing Authority failed to have backup functionality (provided either through a facility or contracted services), the Transmission Operator or Balancing Authority is still required to maintain control and awareness of the BPS. In addition, the Reliability Coordinator who 'sits' above the affected Transmission Operator or Balancing Authority would still be expected to be operating in 'normal' mode thus providing comprehensive coverage of the BPS in the timeframe where the Transmission Operator or Balancing Authority has a problem.
- Guideline 4 (Consistency with NERC's Definition of a VRF): Failure to have backup functionality (provided either through a facility or contracted services) will impact the situational awareness of the Transmission Operator or Balancing Authority, and thus could affect the Transmission Operator's or Balancing Authority's ability to effectively monitor and control the BPS, however violation of this requirement is unlikely to lead to BPS instability, separation or cascading failures. The Transmission Operator or Balancing Authority is required to maintain control and awareness of the BPS at all times. In addition, the Reliability Coordinator who 'sits' above the affected Transmission Operator or Balancing Authority would still be expected to be operating in 'normal' mode thus providing comprehensive coverage of the BPS in the timeframe where the Transmission Operator or Balancing Authority has a problem. Therefore, the failure of a

- Transmission Operator or Balancing Authority to have backup functionality (provided either through a facility or contracted services) should not directly result in instability, separation, or cascading failures. Thus, this requirement meets the criteria for a Medium VRF.
- Guideline 5 (Treatment of Requirements that Co-mingle More Than One Objective): EOP-008-1, Requirement R4 contains only one objective, therefore only one VRF was assigned.

VRFs for Requirement R5:

Standard, Requirement	Requirement Language	VRF Assignment	Comments
EOP-008-1, R5	Each Reliability Coordinator, Balancing Authority,	<u>Medium</u> Lower	Citing a Guideline 3 issues, FERC
	and Transmission Operator, shall annually review		was concerned that EOP-008-1, R5
	and approve its Operating Plan for backup		is a similar requirement to EOP-
	functionality.		005-2, R4, which is assigned a
			Medium VRF. FERC encouraged
	5.1 An update and approval of the Operating Plan		NERC to consider changing the VRF
	for backup functionality shall take place within sixty		assignment to Medium.
	calendar days of any changes to any part of the		
	Operating Plan described in Requirement R1.		NERC staff notes that while EOP-
			005-2, R4 and EOP-008-1, R5 are
			quite different requirements, EOP-
			008-1 R5 does contain a
			subrequirement that is similar to
			the subrequirement in EOP-005-2
			R4. Similar to EOP-005-2, R2 this
			requirement might appear
			administrative at first glance, but
			annually reviewing and approving
			the Operating Plan is about more
			than the possession of a piece of
			paper; it's about updating the
			Operating Plan any time a change
			in required action might be
			necessary. Thus, the VRF is
			appropriately raised to Medium.

Original R5 Guideline Explanation in February 11, 2011 EOP-008-1 Petition:

- Guideline 2 (Consistency within a Reliability Standard): The requirement has no sub-requirements so only one VRF was assigned.

 Therefore, there is no conflict.
- Guideline 3 (Consistency among Reliability Standards): There is a similar requirement (Requirement R4) in proposed EOP-005-2 that is assigned a High VRF. The requirements are viewed as similar since they both refer to the update of a plan: EOP-005-2 for a restoration plan and EOP-008-1 for a backup plan. The VRF assigned to EOP-008-1, Requirement R5 is lower than EOP-005-2, Requirement R4. The SDT recognizes that the VRF for EOP-008-1, Requirement R5 is lower than the VRF for the similar requirement in EOP-005-2 which is assigned a High VRF, however the SDT and stakeholders support the Medium VRF based on NERC's criteria for VRFs. The assignment of the Medium VRF was made based on the premise that failure to update an Operating Plan for backup functionality, by itself, would not directly cause or contribute to BPS instability, separation, or a cascading sequence of failures. For a requirement to be assigned a "High" VRF there should be the expectation that failure to meet the required performance "will" result in instability, separation, or cascading failures. This is not the case when an applicable entity fails to update an Operating Plan for backup functionality while the SDT agrees that, under some circumstances, it is possible that a failure to update an Operating Plan for backup functionality may put the applicable entity in a position where it is not as prepared as it should be to address the potential situation, the failure to have an Operating Plan for backup functionality would not, by itself, result in instability, separation, or cascading failures. If the applicable entity failed to update an Operating Plan for backup functionality, it would still be expected to handle the situation if it occurred. Additionally, the assignment of a Medium VRF to this requirement is consistent with the VRF assignment for Requirement R1.
- Guideline 4 (Consistency with NERC's Definition of a VRF): Failure to update an Operating Plan for backup functionality could directly affect the electrical state or the capability of the BPS, and could affect the applicable entity's ability to effectively monitor and control the BPS. However, violation of this requirement is unlikely to lead to BPS instability, separation, or cascading failures. The applicable entities are always responsible for maintaining the reliability of the BPS regardless of the situation. Thus, this requirement meets NERC's criteria for a Medium VRF. Failure to update an Operating Plan for backup functionality will not, by itself, lead to instability, separation, or cascading failures.
- Guideline 5 (Treatment of Requirements that Co-mingle More Than One Objective): EOP-008-1, Requirement R5 contains only one objective, therefore only one VRF was assigned.

VRFs for Requirement R6:

Standard, Requirement	Requirement Language	VRF Assignment	Comments
EOP-008-1, R6	Each Reliability Coordinator, Balancing Authority,	Medium	Citing Guideline 4 issues, FERC

and Transmission Operator shall have primary and	stated that while it not clear that
backup functionality that do not depend on each	violating the requirement could
other for the control center functionality required	lead to the "Evil Three" –
to maintain compliance with Reliability Standards.	instability, separation, or Cascading
, ,	– a violation of the requirement
	would represent a reduction in
	reliability and should be considered
	for a High assignment.
	NERC staff does not agree that
	FERC staff's concerns are consistent
	with the VRF Guidelines. The
	Medium assignment is consistent
	with the published VRF Guidelines
	and should remain a Medium.

Original R6 Guideline Explanation in February 11, 2011 EOP-008-1 Petition:

- Guideline 2 (Consistency within a Reliability Standard): The requirement has no sub-requirements so only one VRF was assigned. Therefore, there is no conflict.
- Guideline 3 (Consistency among Reliability Standards): EOP-008-1, Requirement R6 is a new requirement, so there are no comparable requirements with which to compare VRFs.
- Guideline 4 (Consistency with NERC's Definition of a VRF): EOP-008-1, Requirement R6 addresses the situation applicable entities primary and backup capabilities can't depend on each other. A violation of this requirement is assigned a "Medium" VRF because, if the applicable entity did have a dependence between their primary and backup capabilities it is not clear that this could directly lead, without any other violations of any other requirements, to instability, separation, or cascading failures.
- Guideline 5 (Treatment of Requirements that Co-mingle More Than One Objective): EOP-008-1, Requirement R6 contains only one objective, therefore only one VRF was assigned.

VRFs for Requirement R7:

andard, Requirement Languag	ye VRF Assignment	Comments
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EOP-008-1, R7	Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall conduct and document results of an annual test of its Operating Plan that demonstrates:	Medium	Citing Guideline 4 issues, FERC expressed concern that because testing and functionality show indisputable proof of performance,
	rian that demonstrates.		this requirement should be
	7.1 The transition time between the simulated loss of primary control center functionality and the time		assigned a High VRF.
	to fully implement the backup functionality.		NERC staff does not believe that testing can show indisputable proof
	7.2. The backup functionality for a minimum of two continuous hours.		of performance; rather, it shows proof or capability and concept. No amount of testing can prove that the entity will meet performance on the day in question, as too many variables are subject to change. Testing just reduces the probability of problems. Thus, NERC staff believes this should remain a Medium, as it can't directly cause
			instability, separation, or Cascading.

Original R7 Guideline Explanation in February 11, 2011 EOP-008-1 Petition:

- Guideline 2 (Consistency within a Reliability Standard): The requirement has no sub-requirements so only one VRF was assigned. Therefore, there is no conflict.
- Guideline 3 (Consistency among Reliability Standards): EOP-008-1, Requirement R7 is a new requirement, so there are no comparable requirements with which to compare VRFs.
- Guideline 4 (Consistency with NERC's Definition of a VRF): EOP-008-1, Requirement R7 mandates testing of an applicable entity's Operating Plan for backup capability. A violation of this requirement is assigned a "Medium" VRF because, if the applicable entity did not test their Operating Plan for backup capability it is not clear that this could directly lead, without any other violations of any other requirements, to instability, separation, or cascading failures.

• Guideline 5 (Treatment of Requirements that Co-mingle More Than One Objective): EOP-008-1, Requirement R7 contains only one objective, therefore only one VRF was assigned.

VSLs for Requirement R1:

Standard,	Requirement	Lower	Moderate	High	Severe	Comments
Requirement	Language					
Requirement EOP-008-1, R1	Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have a current Operating Plan describing the manner in which it continues to meet its functional obligations with regard to the reliable operations of the BES in the event that its primary control center functionality is lost. This Operating Plan for backup	The responsible entity had a current Operating Plan for backup functionality but the plan was missing one of the requirement's six Parts (1.1 through 1.6).	The responsible entity had a current Operating Plan for backup functionality but the plan was missing two of the requirement's six Parts (1.1 through 1.6).	The responsible entity had a current Operating Plan for backup functionality but the plan was missing three or more of the requirement's six Parts (1.1 through 1.6).	The responsible entity had a current Operating Plan for backup functionality, but the plan was missing four or more of the requirement's six Parts (1.1 through 1.6) OR The responsible entity did not have a current Operating Plan for backup functionality.	FERC was concerned about an overlap between the High and Severe VSLs. NERC staff agreed with the concern and clarified the overlap.

	 1	
include the		1
following, at a		
minimum:		1
		1
1.1 The location		1
and method of		1
implementation		1
for providing		1
backup		1
functionality for		1
the time it takes		1
to restore the		1
primary control		1
center		1
functionality.		1
		1
1.2. A summary		
description of the		1
elements required		1
to support the		
backup		1
functionality.		1
These elements		
shall include, at a		
minimum:		1
		1
1.2.1. Tools and		
applications to		1
ensure that		
System Operators		1
have situational		
awareness of the		1
BES.		

	1.2.2. Data		
	communications.		
	1.2.3. Voice		
	communications.		
'	communications.		
	1.2.4. Power		
	source(s).		
	1.2.5. Physical and		
	cyber security.		
'	cyber security.		
	1.3. An Operating		
	Process for		
	keeping the		
	backup		
	functionality		
	consistent with		
	the primary		
	control center.		
	1.4. Operating		
	Procedures,		
	including decision		
	authority, for use		
	in determining		
	when to		
	implement the		
	Operating Plan for		
	backup		
	functionality.		
	1.5. A transition		
	period between		
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the loss of			
primary co			
center	Anti-Oi		
functionali	ity and		
the time to	-		
implement			
backup	ttile		
functionali	ity that		
is less than			
equal to tv			
	vo		
hours.			
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1.6. An Op			
the actions			
taken duri			
transition between t			
of primary	Control		
center	thu and		
functionali	-		
the time to			
implement	L		
backup			
functionali	ity		
elements			
identified			
Requireme			
Part 1.2. T			
Operating			
shall include			
minimum:			
1.6.1. A lis	t of all		

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entities to notify			
when there is a			
change in			
operating			
locations.			
1.6.2. Actions to			
manage the risk			
to the BES during			
the transition			
from primary to			
backup			
functionality as			
well as during			
outages of the			
primary or backup			
functionality.			
1.6.3.			
Identification of			
the roles for			
personnel			
involved during			
the initiation and			
implementation			
of the Operating			
Plan for backup			
functionality.			

Original R1 Guideline Explanation in February 11, 2011 EOP-008-1 Petition:

• Guideline 1: The most comparable VSLs for a similar requirement are for the proposed EOP-005-2, Requirement R1. Those VSLs are based on missing one element for Lower, two for Moderate, and so forth, which is analogous to the VSL structure for EOP-008-1,

- Requirement R1. Thus, the VSLs in the proposed standard do not lower the level of compliance currently required by setting VSLs that are less punitive than those already proposed.
- Guideline 2: The proposed VSLs do not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations. Guideline 2a is inapplicable.
- Guideline 3: The proposed VSLs use the same terminology as used in the associated requirement, and are, therefore, consistent with the requirement.
- Guideline 4: The VSLs are based on a single violation and not cumulative violations.

VSLs for Requirement R3:

Standard,	Requirement	Lower	Moderate	High	Severe	Comments
Requirement	Language					
EOP-008-1, R3	Each Reliability	The Reliability	The Reliability	The Reliability	The Reliability	FERC was
	Coordinator shall have	Coordinator has a	Coordinator has a	Coordinator has a	Coordinator does	concerned that
	a backup control	backup control	backup control	backup control	not have a	these VSLs raise
	center facility	center facility	center facility	center facility	backup control	double jeopardy
	(provided through its	(provided	(provided	(provided	center facility	issues because
	own dedicated backup	through its own	through its own	through its own	(provided	they are
	facility or at another	dedicated backup	dedicated backup	dedicated backup	through its own	contingent upon
	entity's control center	facility or at	facility or at	facility or at	dedicated backup	violations of
	staffed with certified	another entity's	another entity's	another entity's	facility or at	other
	Reliability Coordinator	control center	control center	control center	another entity's	requirements in
	operators when	staffed with	staffed with	staffed with	control center	other standards.
	control has been	certified	certified	certified	staffed with	If you violate the
	transferred to the	Reliability	Reliability	Reliability	certified	requirement of
	backup facility) that	Coordinator	Coordinator	Coordinator	Reliability	another
	provides the	operators when	operators when	operators when	Coordinator	standard, as
	functionality required	control has been	control has been	control has been	operators when	cited, then you
	for maintaining	transferred to the	transferred to the	transferred to the	control has been	also definitely
	compliance with all	backup facility) in	backup facility) in	backup facility) in	transferred to	violate this one.
	Reliability Standards	accordance with	accordance with	accordance with	the backup	Typically, VSLs

tha	at depend on	Requirement R3	Requirement R3	Requirement R3	facility) in	are not tied to
	imary control center	but it did not	but it did not	but it did not	accordance with	other standards
	nctionality. To avoid	provide the	provide the	provide the	Requirement	in this fashion.
	quiring a tertiary	functionality	functionality	functionality	R3that provides	
	cility, a backup	required for	required for	required for	the functionality	While NERC staff
	cility is not required	maintaining	maintaining	maintaining	required for	initially
	iring:	compliance with	compliance with	compliance with	maintaining	supported the
l du	• Planned	one or more of	one or more of	one or more of	compliance with	VSL assignments
		the	the	the	all Reliability	because of their
	outages of the					
	primary or	Requirements in	Requirements in	Requirements in	Standards that	consistency with
	backup	the Reliability	the Reliability	the Reliability	depend on	the language of
	facilities of	Standards	Standards	Standards	primary control	the requirement,
	two weeks or	applicable to the	applicable to the	applicable to the	<u>center</u>	after further
	less	Reliability	Reliability	Reliability	<u>functionality.</u>	consideration, it
	 Unplanned 	Coordinator that	Coordinator that	Coordinator that		agrees with
	outages of the	depend on the	depend on the	depend on the		commenters that
	primary or	primary control	primary control	primary control		gradating the
	backup	center	center	center		VSLs is confusing.
	facilities	functionality and	functionality and	functionality and		The requirement
		which have a	which have a	which have a		is focused on
		Lower VRF.	Medium VRF.	N/AHigh VRF.		having a
		N/A	N/A			functional backup
<u>'</u>						control center,
						and the VSL
						assignments are
						better off binary
						so long as they
						focus on that.
			l	1	l	

Original R3 Guideline Explanation in <u>February 11, 2011 EOP-008-1 Petition</u>:

• Guideline 1: The proposed requirement is new and there are no comparable VSLs.

- Guideline 2: The proposed VSLs do not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations. Guideline 2a is inapplicable.
- Guideline 3: The VSLs use the same terminology as used in the associated requirement and are, therefore, consistent with the requirement.
- Guideline 4: The VSLs are based on a single violation and not cumulative violations.

VSLs for Requirement R4:

Standard,	Requirement	Lower	Moderate	High	Severe	Comments
Requirement	Language					
EOP-008-1, R4	Each Balancing	The responsible	The responsible	The responsible	The responsible	FERC was
	Authority and	entity has backup	entity has backup	entity has backup	entity does not	concerned that
	Transmission Operator	functionality	functionality	functionality	have backup	these VSLs raise
	shall have backup	(provided either	(provided either	(provided either	functionality	double jeopardy
	functionality (provided	through a facility	through a facility	through a facility	(provided either	issues because
	either through a	or contracted	or contracted	or contracted	through a facility	they are
	facility or contracted	services staffed	services staffed	services staffed	or contracted	contingent upon
	services staffed by	by applicable	by applicable	by applicable	services staffed	violations of
	applicable certified	certified	certified	certified	by applicable	other
	operators when	operators when	operators when	operators when	certified	requirements in
	control has been	control has been	control has been	control has been	operators when	other standards.
	transferred to the	transferred to the	transferred to the	transferred to the	control has been	If you violate the
	backup functionality	backup	backup	backup	transferred to	requirement of
	location) that includes	functionality	functionality	functionality	the backup	another
	monitoring, control,	location) in	location) in	location) in	functionality	standard, as
	logging, and alarming	accordance with	accordance with	accordance with	location) in	cited, then you
	sufficient for	Requirement R4	Requirement R4	Requirement R4	accordance with	also definitely
	maintaining	but it did not	but it did not	but it did not	Requirement	violate this one.
	compliance with all	include	include	include	R4.that includes	Typically, VSLs
	Reliability Standards	monitoring,	monitoring,	monitoring,	monitoring,	are not tied to
	that depend on a	control, logging,	control, logging,	control, logging,	control, logging,	other standards
	Balancing Authority	and alarming	and alarming	and alarming	and alarming	in this fashion.
	and Transmission	sufficient for	sufficient for	sufficient for	sufficient for	
	Operator's primary	maintaining	maintaining	maintaining	maintaining	While NERC staff

control center	compliance with	compliance with	compliance with	compliance with	initially
functionality	one or more of	one or more of	one or more of	all Reliability	supported the
respectively. To avoid	the	the	the	Standards that	VSL assignments
requiring tertiary	Requirements in	Requirements in	Requirements in	depend on a	because of their
functionality, backup	the Reliability	the Reliability	the Reliability	<u>Balancing</u>	consistency with
functionality is not	Standards	Standards	Standards	Authority and	the language of
required during:	applicable to the	applicable to the	applicable to the	<u>Transmission</u>	the requirement,
 Planned 	responsible	responsible	responsible	Operator's	after further
outages of the	entity that	entity that	entity that	primary control	consideration, it
primary or	depend on the	depend on the	depend on the	<u>center</u>	agrees with
backup	primary control	primary control	primary control	<u>functionality</u>	commenters that
facilities of	center	center	center	respectively.	gradating the
two weeks or	functionality and	functionality and	functionality and		VSLs is confusing.
less	which have a	which have a	which have a		The requirement
 Unplanned 	Lower VRF.	Medium VRF.	N/AHigh VRF.		is focused on
outages of the	N/A	N/A			having a
primary or					functional backup
backup					control center,
facilities					and the VSL
					assignments are
					better off binary
					so long as they
					focus on that.

Original R4 Guideline Explanation in February 11, 2011 EOP-008-1 Petition:

- Guideline 1: The proposed requirement is new and there are no comparable VSLs.
- Guideline 2: The proposed VSLs do not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations. Guideline 2a is inapplicable.
- Guideline 3: The VSLs use the same terminology as used in the associated requirement and are, therefore, consistent with the requirement.
- Guideline 4: The VSLs are based on a single violation and not cumulative violations.

VSLs for Requirement R5:

Standard,	Requirement	Lower	Moderate	High	Severe	Comments
Requirement	Language					
EOP-008-1, R5	Each Reliability	The responsible	The responsible	The responsible	The responsible	FERC staff was
	Coordinator,	entity did not	entity did not	entity did not	entity did not	concerned that
	Balancing	update and	update and	update and	have evidence	the VSLs were
	Authority, and	approve its	approve its	approve its	that its dated,	elaborating on the
	Transmission	Operating Plan for	Operating Plan for	Operating Plan for	current, in force	standard and
	Operator, shall	backup	backup	backup	Operating Plan for	applying the
	annually review	functionality for	functionality for	functionality for	backup	standards more
	and approve its	more than 60	more than 70	more than 80	functionality was	stringently than
	Operating Plan for	calendar days and	calendar days and	calendar days and	annually reviewed	intended. (They
	backup	less than or equal	less than or equal	less than or equal	and approved.	cited the
	functionality.	to 70 calendar	to 80 calendar	to 90 calendar	OR,	reference to
		days after a	days after a	days after a	The responsible	change in the
	5.1 An update and	change to any	change to any	change to any	entity did not	VSLs.)
	approval of the	part of the	part of the	part of the	update and	
	Operating Plan for	Operating Plan	Operating Plan	Operating Plan	approve its	NERC staff does
	backup	described in	described in	described in	Operating Plan for	not believe that
	functionality shall	Requirement R1.	Requirement R1.	Requirement R1.	backup	the VSLs
	take place within				functionality for	elaborated on the
	sixty calendar				more than 90	standard; the VSLs
	days of any				calendar days	simply roll
	changes to any				after a change to	requirement R5.1
	part of the				any part of the	into the VSL

Operating Plan		Operating Plan	assignments.
described in		described in	Based on
Requirement R1.		Requirement R1.	commenter
			suggestions,
			however, NERC
			has deleted "its
			dated, current, in
			force" from the
			Severe VSL
			assignment as
			that language
			does not appear
			in the
			requirement.
			,

Original R5 Guideline Explanation in February 11, 2011 EOP-008-1 Petition:

- Guideline 1: The most comparable VSLs for a similar requirement are for the proposed EOP-005-2, Requirement R4. Those VSLs are based on late distribution of a plan which is analogous to the VSLs for EOP- 008-1, Requirement R5. The VSLs assignments are similar between the two standards. Thus, the VSLs in the proposed standard do not lower the level of compliance currently required by setting VSLs that are less punitive than those already proposed.
- Guideline 2: The proposed VSLs do not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations. Guideline 2a is inapplicable.
- Guideline 3: The VSLs use the same terminology as used in the associated requirement and are, therefore, consistent with the requirement.
- Guideline 4: The VSLs are based on a single violation and not cumulative violations.

VSLs for Requirement R6:

Standard,	Requirement	Lower	Moderate	High	Severe	Comments
Requirement	Language					
EOP-008-1, R6	Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have primary and backup functionality that do not depend on each other for the control center functionality required to maintain compliance with Reliability Standards.	N/A	The responsible entity has primary and backup functionality that do depend on each other for the control center functionality required to maintain compliance with Reliability Standards applicable for the entity that have a Lower VRF. N/A	The responsible entity has primary and backup functionality that do depend on each other for the control center functionality required to maintain compliance with Reliability Standards applicable for the entity that have a Medium VRF. N/A	The responsible entity has primary and backup functionality that do depend on each other for the control center functionality required to maintain compliance with Reliability Standards applicable for the entity that have a High VRF.	FERC was concerned that these VSLs raise double jeopardy issues because they are contingent upon violations of other requirements in other standards. If you violate the requirement of another standard, as cited, then you also definitely violate this one. Typically, VSLs are not tied to other standards in this fashion.
						While NERC staff initially supported the VSL assignments because of their consistency with the language of the requirement, after further consideration, it agrees with

			commenters that
			gradating the VSLs
			is confusing. The
			requirement is
			focused on having
			a functional
			backup control
			center, and the
			VSL assignments
			are better off
			binary so long as
			they focus on
			that.

Original R6 Guideline Explanation in February 11, 2011 EOP-008-1 Petition:

- Guideline 1: The proposed requirement is new and there are no comparable VSLs.
- Guideline 2: The proposed VSLs do not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations. Guideline 2a is inapplicable.
- Guideline 3: The VSLs use the same terminology as used in the associated requirement and are, therefore, consistent with the requirement.
- Guideline 4: T The VSLs are based on a single violation and not cumulative violations.

VSLs for Requirement R7:

Standard,	Requirement	Lower	Moderate	High	Severe	Comments
Requirement	Language					
EOP-008-1, R7	Each Reliability	The responsible	The responsible	The responsible	The responsible	FERC staff
	Coordinator,	entity conducted	entity conducted	entity conducted	entity did not	expressed
	Balancing	an annual test of	an annual test of	an annual test of	conduct an annual	concern that
	Authority, and	its Operating Plan	its Operating Plan	its Operating Plan	test of its	documentation
	Transmission	for backup	for backup	for backup	Operating Plan for	was not covered

Operator shall	functionality but it	functionality but	functionality but	backup	in the VSLs.
conduct and	did not document	the test was for	the test did not	functionality.	
document results	the results.	less than 1.5	assess the		NERC staff points
of an annual test		continuous hours	transition time	OR,	out that
of its Operating	OR,	but more than or	between the		documentation is
Plan that		equal to 1	simulated loss of	The responsible	appropriately
demonstrates:	The responsible	continuous hour.	its primary control	entity conducted	"Lower" because
	entity conducted		center and the	an annual test of	there are other
7.1 The transition	an annual test of		time to fully	its Operating Plan	ways of proving
time between the	its Operating Plan		implement the	for backup	that the test was
simulated loss of	for backup		backup	functionality but	conducted, other
primary control	functionality but		functionality	the test was for	than
center	the test was for			less than 0.5	documentation;
functionality and	less than two		OR,	continuous hours.	i.e., affidavits or
the time to fully	continuous hours				other
implement the	but more than or		The responsible		corroborating
backup	equal to 1.5		entity conducted		evidence-
functionality.	continuous hours.		an annual test of		receipts. No
			its Operating Plan		change proposed.
7.2. The backup			for backup		
functionality for a			functionality but		
minimum of two			the test was -for		
continuous hours.			less than 1		
			continuous hour		
			but more than or		
			equal to 0.5		
			continuous hours.		

Original R7 Guideline Explanation in February 11, 2011 EOP-008-1 Petition:

• Guideline 1: The proposed requirement is new and there are no comparable VSLs.

- Guideline 2: The proposed VSLs do not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations. Guideline 2a is inapplicable.
- Guideline 3: The VSLs use the same terminology as used in the associated requirement and are, therefore, consistent with the requirement.
- Guideline 4: The VSLs are based on a single violation and not cumulative violations.