

Note: an Interpretation cannot be used to change a standard.

Request for an Interpretation of a Reliability Standard	
Date submitted:	September 2, 2009
Date accepted:	September 2, 2009
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Identify the standard that needs clarification:	
Standard Number (include version number):	BAL-002-0
Standard Title:	Disturbance Control Performance
Identify specifically what requirement needs clarification:	
<u>Requirement Number and Text of Requirement:</u>	
B. Requirements	

R4. A Balancing Authority or Reserve Sharing Group shall meet the Disturbance Recovery Criterion within the Disturbance Recovery Period for 100% of Reportable Disturbances. The Disturbance Recovery Criterion is:	
<p style="margin-left: 40px;">R4.1. A Balancing Authority shall return its ACE to zero if its ACE just prior to the Reportable Disturbance was positive or equal to zero. For negative initial ACE values just prior to the Disturbance, the Balancing Authority shall return ACE to its pre-Disturbance value.</p> <p style="margin-left: 40px;">R4.2. The default Disturbance Recovery Period is 15 minutes after the start of a Reportable Disturbance. This period may be adjusted to better suit the needs of an Interconnection based on analysis approved by the NERC Operating Committee.</p>	

R5. Each Reserve Sharing Group shall comply with the DCS. A Reserve Sharing Group shall be considered in a Reportable Disturbance condition whenever a group member has experienced a Reportable Disturbance and calls for the activation of Contingency Reserves from one or more other group members. *** Compliance may be demonstrated by either of the following two methods:	

R.5.1 The Reserve Sharing Group reviews group ACE (or equivalent) and demonstrates compliance to the DCS. To be in compliance, the group ACE (or its equivalent) must meet the Disturbance Recovery Criterion after the schedule change(s) related to reserve sharing have been fully implemented, and within the Disturbance Recovery Period.

or

R.5.2. The Reserve Sharing Group reviews each member's ACE in response to the activation of reserves. To be in compliance, a member's ACE (or its equivalent) must meet the Disturbance Recovery Criterion after the schedule change(s) related to reserve sharing have been fully implemented, and within the Disturbance Recovery Period.

D. Compliance

1.4 Additional Compliance Information

Simultaneous Contingencies – Multiple Contingencies occurring within one minute or less of each other shall be treated as a single Contingency. If the combined magnitude of the multiple Contingencies exceeds the most severe single Contingency, the loss shall be reported, but excluded from compliance evaluation.

Multiple Contingencies within the Reportable Disturbance Period – Additional Contingencies that occur after one minute of the start of a Reportable Disturbance but before the end of the Disturbance Recovery Period can be excluded from evaluation. The Balancing Authority or Reserve Sharing Group shall determine the DCS compliance of the initial Reportable Disturbance by performing a reasonable estimation of the response that would have occurred had the second and subsequent contingencies not occurred.

Clarification needed:

The Northwest Power Pool Reserve Sharing Group respectfully requests clarification as to whether:

- (1) although a Disturbance¹ that exceeds the most severe single Contingency must be reported by the Balancing Authority or Reserve Sharing Group (as applicable), the Disturbance is excluded from compliance evaluation for the applicable Balancing Authority or Reserve Sharing Group;
- (2) with respect to either simultaneous Contingencies or non-simultaneous multiple Contingencies affecting a Reserve Sharing Group, the exclusion from compliance evaluation for Disturbances exceeding the most severe single Contingency applies both when (a) all Contingencies occur within a single Balancing Authority member of the Reserve Sharing Group and (b) different Balancing Authorities within the Reserve Sharing Group experience separate Contingencies that occur simultaneously, or non-simultaneously but before the end of the Disturbance Recovery Period following the first Reportable Disturbance; and

¹ Irrespective of cause, including a single event, simultaneous Contingencies, or non-simultaneous multiple Contingencies.

- (3) the meaning of the phrase “excluded from compliance evaluation” as used in Section 1.4 (“Additional Compliance Information”) of Part D of BAL-002-0 and for purposes of the preceding statements is that, with respect to Disturbances that exceed the most severe single Contingency for a Balancing Authority or Reserve Sharing Group (as applicable), a violation of BAL-002-0 does not occur even if ACE is not recovered within the Disturbance Recovery Period (15 minutes unless adjusted pursuant to BAL-002-0, R4.2).

Identify the material impact associated with this interpretation:

Clarification is needed to avoid applications of BAL-002-0 that would render the reserve requirement specified in R3.1 of BAL-002-0 (which calls for “enough Contingency Reserve to cover the most severe single Contingency”) meaningless. The intent of BAL-002-0 is that all Contingencies greater than or equal to 80% of the most severe single Contingency constitute “Reportable Disturbances.” See Section 1.4 of Part D of BAL-002-0 (where the “Additional Compliance Information” includes a definition of “Reportable Disturbance”).

If a Balancing Authority were to experience a Contingency below the Reportable Disturbance level, it would be expected to recover ACE within 15 minutes, even though the literal words of R4 of BAL-002-0 do not say this. Conversely, if a Balancing Authority were to experience a Disturbance five times greater than its most severe single Contingency, it would be required to report this Disturbance, but would not be required to recover ACE within 15 minutes following a Disturbance of this magnitude.

Any other interpretation would result in treating BAL-002-0 as if it required Balancing Authorities and Reserve Sharing Groups to recover ACE (to zero or pre-Disturbance levels, as applicable) within the 15-minute Disturbance Recovery Period without regard to Disturbance magnitude. This is inconsistent with (a) the reserve requirement specified in R3.1 of BAL-002-0, (b) the text of Section 1.4 of Part D of BAL-002-0, and (c) the documented history of the development of BAL-002-0 (see, e.g., Performance Standards Document, Version 3 (as accepted by NERC Resources Subcommittee on October 23, 2007), which provides in Section D, *Disturbance Control Standard, DCS*, that “An excludable disturbance is a disturbance whose magnitude was greater than the magnitude of the most severe single contingency.”)

Furthermore, lack of clarity on the interpretation of this standard potentially has significant financial and operational impacts on all Balancing Authorities and Reserve Sharing Groups. If the standard is interpreted to require that ACE be returned to zero even for a Disturbance that exceeds the most severe single Contingency, a Balancing Authority could be required to take drastic operational actions, even when other measures of system reliability (voltage stability, normal frequency, operation within system operating limits, etc.) indicate otherwise.

Project 2009-19: Response to Request for an Interpretation of BAL-002-0 for the Northwest Power Pool Reserve Sharing Group

The following interpretation of standard BAL-002-0 — Disturbance Control Performance, Requirements R4 and R5, was developed by several industry experts selected by NERC based on their knowledge of the subject matter.

Requirement Number and Text of Requirement

R4. A Balancing Authority or Reserve Sharing Group shall meet the Disturbance Recovery Criterion within the Disturbance Recovery Period for 100% of Reportable Disturbances. The Disturbance Recovery Criterion is:

R4.1 A Balancing Authority shall return its ACE to zero if its ACE just prior to the Reportable Disturbance was positive or equal to zero. For negative initial ACE values just prior to the Disturbance, the Balancing Authority shall return ACE to its pre-Disturbance value.

R4.2. The default Disturbance Recovery Period is 15 minutes after the start of a Reportable Disturbance. This period may be adjusted to better suit the needs of an Interconnection based on analysis approved by the NERC Operating Committee.

R5. Each Reserve Sharing Group shall comply with the DCS. A Reserve Sharing Group shall be considered in a Reportable Disturbance condition whenever a group member has experienced a Reportable Disturbance and calls for the activation of Contingency Reserves from one or more other group members. (If a group member has experienced a Reportable Disturbance but does not call for reserve activation from other members of the Reserve Sharing Group, then that member shall report as a single Balancing Authority.) Compliance may be demonstrated by either of the following two methods:

R5.1. The Reserve Sharing Group reviews group ACE (or equivalent) and demonstrates compliance to the DCS. To be in compliance, the group ACE (or its equivalent) must meet the Disturbance Recovery Criterion after the schedule change(s) related to reserve sharing have been fully implemented, and within the Disturbance Recovery Period.

or

R5.2. The Reserve Sharing Group reviews each member's ACE in response to the activation of reserves. To be in compliance, a member's ACE (or its equivalent) must meet the Disturbance Recovery Criterion after the schedule change(s) related to reserve sharing have been fully implemented, and within the Disturbance Recovery Period.

D. Compliance

1.4 Additional Compliance Information

Simultaneous Contingencies – Multiple Contingencies occurring within one minute or less of each other shall be treated as a single Contingency. If the combined magnitude of the multiple Contingencies exceeds the most severe single Contingency, the loss shall be reported, but excluded from compliance evaluation.

Multiple Contingencies within the Reportable Disturbance Period – Additional Contingencies that occur after one minute of the start of a Reportable Disturbance but before the end of the Disturbance Recovery Period can be excluded from evaluation. The

Balancing Authority or Reserve Sharing Group shall determine the DCS compliance of the initial Reportable Disturbance by performing a reasonable estimation of the response that would have occurred had the second and subsequent contingencies not occurred.

Question 1:

Although a Disturbance² that exceeds the most severe single Contingency must be reported by the Balancing Authority or Reserve Sharing Group (as applicable), is the Disturbance excluded from compliance evaluation for the applicable Balancing Authority or Reserve Sharing Group?

Response 1:

The BAL-002-0 Reliability Standard does not grant an exclusion from compliance evaluation for all Disturbances that exceed the most severe single Contingency. The standard excludes from compliance evaluation specific Disturbances. Simultaneous Contingencies that have a combined magnitude in excess of that of the most severe single Contingency are excluded from compliance evaluation. Subsequent contingencies following an initial Reportable Disturbance that occur more than one minute after the start of the Reportable Disturbance but within the Reportable Disturbance Period can be excluded from compliance evaluation; however, the initial Reportable Disturbance is not excluded from compliance evaluation.

Question 2:

With respect to either simultaneous Contingencies or non-simultaneous multiple Contingencies affecting a Reserve Sharing Group, does the exclusion from compliance evaluation for Disturbances exceeding the most severe single Contingency apply both when (a) all Contingencies occur within a single Balancing Authority member of the Reserve Sharing Group and (b) different Balancing Authorities within the Reserve Sharing Group experience separate Contingencies that occur simultaneously, or non-simultaneously but before the end of the Disturbance Recovery Period following the first Reportable Disturbance?

Response 2:

As discussed in the response to Question 1, the exclusion from compliance evaluation does not apply to all Disturbances with combined magnitudes exceeding the most severe single Contingency.

As described in Requirement R5, the Reserve Sharing Group in its entirety is “considered in a Reportable Disturbance condition whenever a group member has experienced a Reportable Disturbance and calls for the activation of Contingency Reserves from one or more other group members.” Therefore, the “exclusion from compliance evaluation” would apply, regardless of the location of the Contingencies associated with the Reportable Disturbance within the Reserve Sharing Group, only if:

1. All Reportable Disturbances being considered as contributing to the Reserve Sharing

² Irrespective of cause, including a single event, simultaneous Contingencies, or non-simultaneous multiple Contingencies.

Group's Reportable Disturbance condition each had an associated call by the group member with the Reportable Disturbance for the activation of Contingency Reserves from one or more other group members, and

2. The Reserve Sharing Group's Reportable Disturbance was either based on Simultaneous Contingencies with a combined magnitude in excess of the most severe single Contingency, or was a subsequent contingency that occurred more than one minute after the start of a Reportable Disturbance but within the Reportable Disturbance Period.

Question 3:

Clarify the meaning of the phrase "excluded from compliance evaluation" as used in Section 1.4 ("Additional Compliance Information") of Part D of BAL-002-0 and for purposes of the preceding statements, with respect to Disturbances that exceed the most severe single Contingency for a Balancing Authority or Reserve Sharing Group (as applicable), does BAL-002-0 require ACE to be recovered within the Disturbance Recovery Period (15 minutes unless adjusted pursuant to BAL-002-0, R4.2).

Response 3:

As discussed in the response to Question 1, the exclusion from compliance evaluation does not apply to all Disturbances that exceed the most severe single Contingency.

Measure M1 of BAL-002-0 details the calculation of the percentage recovery for all Disturbances greater than or equal to 80% of the magnitude of the Balancing Authority's or Reserve Sharing Group's most severe single contingency loss. In addition to describing the calculation, the measure indicates that there will be a calculation of average percent recovery for Reportable Disturbances during a given quarter and a similar calculation for excludable Disturbances. Since calculation of both metrics is described in Measure M1, the phrase "excluded from compliance evaluation" indicates that the specified disturbances shall not be included in the calculation of "average percent recovery for Reportable Disturbances," but will be included in the "average percent recovery for excludable Disturbances," as specified in Measure M1. As indicated in Section D.1, compliance with the DCS will be measured on a percentage basis using these measures.

While an entity's average percent recovery for Reportable Disturbances may be calculated as 100%, BAL-002-0 Requirement R3 still requires a Balancing Authority or Reserve Sharing Group to "activate sufficient contingency reserves to comply with the DCS." The Compliance Enforcement Authority, when verifying compliance with BAL-002-0, will be taking numerous factors into account, including whether or not the Balancing Authority or Reserve Sharing Group carried at least enough Contingency Reserve to cover the most severe single contingency. However, the determination of whether or not a violation of the standard has occurred rests with the Compliance Enforcement Authority. To the extent explicit limits are desired, they must be clearly specified in the requirements of the standard.