Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	001	Policy 1 – Generation Control and Performance: Section A Control Performance Standard Appendix 1A, Area Control Error (ACE) Equation Performance Standard Reference Document P1T1 Compliance Template	The Drafting Team has translated CPS1 and CPS2 to adopt the BALANCING AUTHORITY function. Otherwise requirements are unchanged. To make the standard complete, relevant equations from Appendix 1A have been included in the requirements below. To make the standard complete, requirements and equations from the Performance Standard Reference Document have been incorporated.
Title	Real Power Balancing Control Performance		
Purpose	To maintain Interconnection frequency within defined limits by balancing real power demand and supply in real-time.	Policy 1 Introduction	
Effective Date	February 8, 2005		
Applicability	1. BALANCING AUTHORITIES		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Requirements	R1 A BALANCING AUTHORITY shall operate such that, on a rolling 12-month basis, the average of the clock-minute averages of the BALANCING AUTHORITY AREA's ACE divided by 10B (B is the clock-minute average of the BALANCING AUTHORITY AREA's frequency bias) times the corresponding clock-minute averages of the INTERCONNECTION's FREQUENCY ERROR is less than a specific limit. This limit $\in_1^2$ is a constant derived from a targeted frequency bound (separately calculated for each INTERCONNECTION) reviewed and set as necessary by the NERC Operating Committee. $AVG_{Period}\left[\left(\frac{ACE_i}{-10B_i}\right)_1 * \Delta F_1\right] \le \in_1^2 \ or \ \frac{AVG_{Period}\left[\left(\frac{ACE_i}{-10B_i}\right)_1 * \Delta F_1\right]}{\in_1^2} \le 1$	Policy 1A Requirement 1.1	This is the current CPS1 standard. Drafting Team assumes NERC Operating Committee is the authority to set and approve epsilon for each interconnection. Policy currently references the Resources Subcommittee.
	R2 A BALANCING AUTHORITY shall operate such that its Area's average ACE for at least 90% of clock-ten-minute periods (6 non-overlapping periods per hour) during a calendar month is within a specific limit, referred to as L_{10}. $AVG_{10-minute}(ACE_i) \le L_{10}$ where: $L_{10} = 1.65 \in_{10} \sqrt{(-10B_i)(-10B_s)}$ $\in_{10}$ is a constant derived from the targeted frequency bound. It is the targeted RMS of ten-minute average frequency error from schedule based on frequency performance over a given year. The bound, $\in_{10}$, is the same for every BALANCING AUTHORITY AREA within an Interconnection, and B_s is the sum of the frequency bias settings of the balancing areas in the respective Interconnection. For BALANCING AUTHORITY AREAS with variable bias, this is equal to	Policy 1A Requirement 1.2	This is the current CPS2 standard.

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	the sum of the minimum frequency bias settings.		
	R3 A BALANCING AUTHORITY providing OVERLAP REGULATION SERVICE shall evaluate Requirement 1 (CPM1) and Requirement 2 (CPM2) using the characteristics of the combined ACE and combined FREQUENCY BIAS SETTINGS.	Policy 1A Requirement 2.4	
	R4 A BALANCING AUTHORITY receiving OVERLAP REGULATION SERVICE shall not have its control performance evaluated (i.e. from a control performance perspective, the BALANCING AUTHORITY has shifted all control requirements to the BALANCING AUTHORITY providing OVERLAP REGULATION SERVICE).	Policy 1A Requirement 2.5	
Measures	M1 A BALANCING AUTHORITY shall achieve, as a minimum, Requirement 1 compliance of 100% (CPM1). CPM1 is calculated by converting a compliance ratio to a compliance percentage as follows: CPR1 = (2 - CF) * 100% The frequency-related Compliance Factor, CF, is a ratio of all one-minute compliance parameters accumulated over 12 months divided by the TARGET FREQUENCY BOUND: $CF = \frac{CF_{12-month}}{(\in_1)^2}$ where: Epsilon 1 is defined in Requirement 1. The rating index $CF_{12\text{-}month}$ is derived from 12 months of data. The basic unit of data comes from one-minute averages of ACE, frequency error and FREQUENCY BIAS SETTINGS. A clock-minute average is the average of the reporting BALANCING AUTHORITY's valid measured variable (i.e., for ACE and for frequency error for each sampling cycle during a given clock-minute.	Policy 1A Requirement 2.1 Performance Standards Reference Document P1A Requirement 2.1.1	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	$\left(\frac{ACE}{-10B}\right)_{\text{clock-minute}} = \frac{\left(\frac{\sum ACE_{\text{sampling cycles in clock-minute}}}{n_{\text{sampling cycles in clock-minute}}}\right)}{\text{-10B}}$ $\Delta F_{\text{clock-minute}} = \frac{\sum \Delta F_{\text{sampling cycles in clock-minute}}}{n_{\text{sampling cycles in clock-minute}}}$ The BALANCING AUTHORITY's clock-minute Compliance Factor (CF) becomes: $CF_{\text{clock-minute}} = \left[\left(\frac{ACE}{-10B}\right)_{\text{clock-minute}} * \Delta F_{\text{clock-minute}}\right]$ Normally, sixty (60) clock-minute averages of the reporting area's ACE and of the respective Interconnection's frequency error will be used to compute the respective Hourly Average Compliance parameter. $CF_{\text{clock-hour}} = \frac{\sum CF_{\text{clock-minute}}}{n_{\text{clock-minute samples in hour}}}$ The reporting entity shall be able to recalculate and store each of the respective clock-hour averages (CF clock-hour average-month) as well as the respective number of samples for each of the twenty-four (24) hours (one for each clock-hour, i.e., HE 0100, HE 0200, ..., HE 2400). $\text{CF}_{\text{clock-hour average-month}} = \frac{\sum_{\text{days-in-month}}[(\text{CF}_{\text{clock-hour}})(n_{\text{one-minute samples in clock-hour}})]}{\sum_{\text{days-in month}}[n_{\text{one-minute samples in clock-hour}}]}$	P1 A. 2.1.1.2 P1 A. 2.1.1.3	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	$$CF_{month} = \frac{\sum_{hours\text{-}in\text{-}day}[(CF_{clock\text{-}hour\ average\text{-}month})(n_{one\text{-}minute\ samples\ in\ clock\text{-}hour\ averages})]}{\sum_{hours\ in\ day}[n_{one\text{-}minute\ samples\ in\ clock\text{-}hour\ averages}]}$$ The 12-month Compliance Factor becomes: $$CF_{12\text{-}month} = \frac{\sum_{i=1}^{12}(CF_{month\text{-}i})(n_{(one\text{-}minute\ samples\ in\ month)-i})]}{\sum_{i=1}^{12}[n_{(one\text{-}minute\ samples\ in\ month)\text{-}i}]}$$ In order to ensure that the average ACE and FREQUENCY DEVIATION calculated for any one-minute interval is representative of that one-minute interval, it is necessary that at least 50% of both ACE and FREQUENCY DEVIATION samples during that one-minute interval be present. Should a sustained interruption in the recording of ACE or FREQUENCY DEVIATION due to loss of telemetering or computer unavailability result in a one-minute interval not containing at least 50% of samples of both ACE and FREQUENCY DEVIATION, that one-minute interval shall be excluded from the calculation of CPM1.	P1 A. 2.1.2	
	M2 A BALANCING AUTHORITY shall achieve, as a minimum, Requirement 2 compliance of 90% (CPM2). CPM2 relates to a bound on the ten-minute average of ACE. A compliance percentage is calculated as follows: $$CPS2 = \left[1 - \frac{\text{Violations}_{month}}{(\text{Total Periods}_{month} - \text{Unavailable Periods}_{month})}\right] * 100$$ The violations per month are a count of the number of periods that ACE clock-ten-minutes exceeded L_{10}. ACE clock-ten-minutes is the sum of valid ACE samples within a clock-ten-minute period divided by the number of valid samples.	Policy 1A Requirement 2.2 Performance Standards Reference Document	Remove unnecessary capitalization.

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	Violation clock-ten-minutes = 0 if $\left\| \frac{\sum ACE}{n_{\text{samples in 10-minutes}}} \right\| \leq L_{10}$ = 1 if $\left\| \frac{\sum ACE}{n_{\text{samples in 10-minutes}}} \right\| > L_{10}$ Each BALANCING AUTHORITY shall report the total number of violations and unavailable periods for the month. L_{10} is defined in Standard 002. Since CPM2 requires that ACE be averaged over a discrete time period, the same factors that limit total periods per month will limit violations per month. The calculation of total periods per month and violations per month, therefore, must be discussed jointly. A condition may arise which may impact the normal calculation of total periods per month and violations per month. This condition is a sustained interruption in the recording of ACE. In order to ensure that the average ACE calculated for any ten-minute interval is representative of that ten-minute interval, it is necessary that at least half the ACE data samples are present for that interval. Should half or more of the ACE data be unavailable due to loss of telemetering or computer unavailability, that ten-minute interval shall be omitted from the calculation of CPM2. A BALANCING AUTHORITY providing or receiving SUPPLEMENTAL REGULATION SERVICE through DYNAMIC TRANSFER shall continue to be evaluated on the characteristics of its own ACE with the SUPPLEMENTAL REGULATION SERVICE included.	Policy 1A Requirement 2.2.1 Policy 1A Requirement 2.2.2 P1 A. 2.2.2.1 P1 A 2.3	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Regional Differences	The ERCOT waiver approved by the NERC Operating Committee on November 21, 2002, is a part of Standard 001 by reference.		ERCOT has an existing waiver to CPS2
Compliance Monitoring Process	Compliance with the CPM 1 standard shall be measured on a percentage basis as set forth in the NERC Performance Standard Training Document. Control Areas must have achieved the minimum compliance level and must send one completed copy of the CPM 1 and CPM 2 form "NERC Control Performance Standard Survey-All Interconnections" each month to the Regions as per established dates. The Regional Reliability Council must submit a summary document reporting compliance with CPM 1 and CPM 2 to NERC no later than the 20th day of the following month. Periodic Compliance Monitoring: Compliance for CPM 1 and CPM 2 will be evaluated for each reporting period. The data that supports the calculation of CPM 1 and CPM 2 are to be retained in electronic form for at least a one-year period. If the CPM 1 and CPM 2 data for a BALANCING AREA are undergoing a review to address a question that has been raised regarding the data, the data are to be saved beyond the normal retention period until the question is formally resolved. Each Balancing Authority shall retain for a rolling 12-month period the values of: one-minute average ACE (ACE_i), one-minute average frequency error, and, if using variable bias, one-minute average frequency bias. The reset period is one calendar month without a violation. On a regular basis, a BALANCING AUTHORITY shall submit performance standard surveys to monitor the BALANCING AUTHORITY's control performance during normal and disturbance situations. A Balancing Authority shall submit a CPS Survey to its Resources Subcommittee Survey Contact no later than the 10th day following the end of the month. The Resources Subcommittee Survey Contact shall	P1T1 Compliance Template Appendix 1H Section I.	The Drafting Team proposes to remove the compliance monitoring process from the Version 0 standards. Information in the compliance template is shown here for reference.

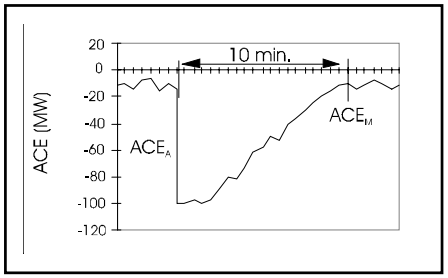
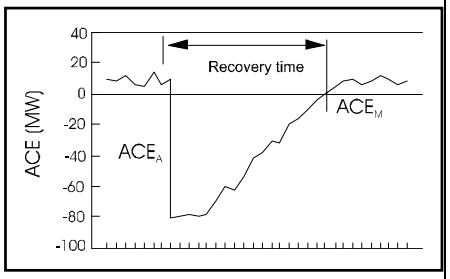
Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	submit the CPS survey to NERC no later than the 20th day following the end of the month.		
Levels of Non Compliance	Non-compliance for CPM 1 and CPM 2 is evaluated separately. Non-compliance for CPM 1 in a month shall mean that the rolling twelve month average of CPM 1 ending in that month is less than 100%. Non-compliance for CPM 2 shall mean that the monthly CPM 2 average is below 90%. Both CPM 1 and CPM 2 are calculated and evaluated monthly. **CPM 1** Level 1 — The Control Area's value of CPM 1 is less than 100% but greater than or equal to 95%. Level 2 — The Control Area's value of CPM 1 is less than 95% but greater than or equal to 90%. Level 3 — The Control Area's value of CPM 1 is less than 90% but greater than or equal to 85%. Level 4 — The Control Area's value of CPM 1 is less than 85%. **CPM2** Level 1 — The Control Area's value of CPM 2 is less than 90% but greater than or equal to 85%. Level 2 — The Control Area's value of CPM 2 is less than 85% but greater than or equal to 80%. Level 3 — The Control Area's value of CPM 2 is less than 80% but greater than or equal to 75%. Level 4 — The Control Area's value of CPM 2 is less than 75%.	P1T1	The Drafting Team proposes to retain the levels of non-compliance in Standard 001.

Proposed Draft Version 0 Standard Language		Existing Document Reference	Comments
Standard	002	Policy 1 – Generation Control and Performance: Section B Disturbance Control Standard Performance Standard Reference Document Compliance Template P1T2	This standard is a translation of the Disturbance Control Standard (DCS) to the functional model. Requirements have not been modified except to replace Control Area with BALANCING AUTHORITY or BALANCING AUTHORITY AREA. For completeness, some requirements and equations from the Performance Standard Reference Document have been incorporated into the standard.
Title	Disturbance Control Performance		
Purpose	The BALANCING AUTHORITY demand-supply balance will quickly change following the sudden loss of load or generation failure. This results in a sudden change in the BALANCING AUTHORITY's ACE, and also a change in INTERCONNECTION frequency. The Disturbance Control Performance standard measures the BALANCING AUTHORITY's ability to utilize its CONTINGENCY RESERVES following a REPORTABLE DISTURBANCE. Because generator failures are far more common than significant losses of load and because CONTINGENCY RESERVE activation does not typically apply to the loss of load, the application of the Disturbance Control Performance standard is limited to the loss of supply and does not apply to the loss of load.	Policy 1B Introduction	
Effective Date	February 8, 2005		
Applicability	1. BALANCING AUTHORITIES 2. RESERVE SHARING GROUPS (BALANCING AUTHORITIES may meet these requirements of Standard 002 through participation in a RESERVE SHARING GROUP.) 3. Regional Reliability Organization		

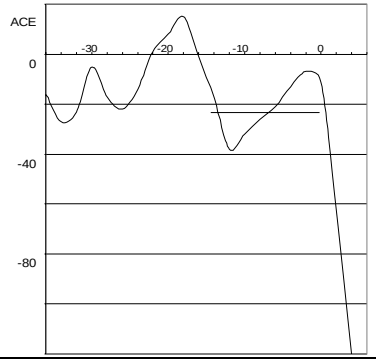
Proposed Draft Version 0 Standard Language			Existing Document Reference	Comments
Requirements	R1	A BALANCING AUTHORITY shall have access to and/or operate CONTINGENCY RESERVES to respond to disturbances. CONTINGENCY RESERVES may be supplied from generation, controllable load resources, or coordinated adjustments to INTERCHANGE SCHEDULES. A BALANCING AUTHORITY may assign its CONTINGENCY RESERVE obligations to a RESERVE SHARING GROUP. In such cases, the RESERVE SHARING GROUP shall have the same responsibilities and obligations as each BALANCING AUTHORITY within it, with respect to monitoring and meeting the requirements of Standard 002.	Policy 1B Requirement 2. Paraphrased from the introduction to Policy 1B.	
	R2	Each Regional Reliability Organization, sub Regional Reliability Organization or RESERVE SHARING GROUP shall specify its CONTINGENCY RESERVE policies, including the minimum reserve requirement for the group, its allocation among members, the permissible mix of OPERATING RESERVE – SPINNING and OPERATING RESERVE – SUPPLEMENTAL that may be included in CONTINGENCY RESERVE, and the procedure for applying CONTINGENCY RESERVE in practice, and the limitations, if any, upon the amount of interruptible load that may be included. The same portion of resource capacity (e.g. reserves from jointly owned generation) shall not be counted more than once as CONTINGENCY RESERVE by multiple BALANCING AUTHORITIES.	Policy 1B Requirement 2.2 Policy 1B Requirement 2.1	
	R3	Each BALANCING AUTHORITY or RESERVE SHARING GROUP shall activate sufficient CONTINGENCY RESERVE to comply with the Disturbance Control Performance Measure M1 (DCM). As a minimum, the BALANCING AUTHORITY or RESERVE SHARING GROUP shall carry at least enough CONTINGENCY RESERVE to cover the most severe single contingency. All BALANCING AUTHORITIES and RESERVE SHARING GROUPS shall review, no less frequently than annually, their probable contingencies to determine their prospective most severe single contingencies.	P1 B. 2.3 P1 B. 3. 3.1	
	R4	When a BALANCING AUTHORITY or RESERVE SHARING GROUP experiences a REPORTABLE DISTURBANCE, it is compliant with the DCM when the DISTURBANCE RECOVERY CRITERION is met within the DISTURBANCE RECOVERY PERIOD. Each BALANCING AUTHORITY or RESERVE SHARING GROUP shall meet the DCM 100%	P1 B. 3.2 P1 B. 3.2.1	

Proposed Draft Version 0 Standard Language		Existing Document Reference	Comments
	of the time for REPORTABLE DISTURBANCES. 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. The default performance criterion described above may be adjusted to better suit the needs of an INTERCONNECTION based on analysis approved by the NERC Operating Committee. 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.	P1 B3.2.2	
	R5 A RESERVE SHARING GROUP shall comply with the DCM. 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: The RESERVE SHARING GROUP reviews group ACE (or equivalent) and demonstrates compliance to the DCM. 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 The RESERVE SHARING GROUP reviews each member's ACE in response to the activation of reserves. To be in compliance, a	P1 B. 3.3 P1 B. 3.3.1 P1 B. 3.3.2	

Proposed Draft Version 0 Standard Language		Existing Document Reference	Comments
	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.		
	R6 A Balancing Authority shall fully restore its CONTINGENCY RESERVES within the CONTINGENCY RESERVE RESTORATION PERIOD for its INTERCONNECTION. The CONTINGENCY RESERVE RESTORATION PERIOD begins at the end of the DISTURBANCE RECOVERY PERIOD. The BALANCING AUTHORITY or RESERVE SHARING GROUP shall restore its CONTINGENCY RESERVES within 90 minutes. This period may be adjusted to better suit the reliability targets of the INTERCONNECTION based on analysis approved by the NERC Operating Committee.	P1 B. 4. P1 B. 4.1 P1 B. 4.2	

Proposed Draft Version 0 Standard Language		Existing Document Reference	Comments
Measures	M1 A Balancing Authority or Reserve Sharing Group shall calculate and report compliance with the Disturbance Control Standard for all disturbances greater than or equal to 80% of the magnitude of the Balancing Authority's or of the Reserve Sharing Group's most severe single contingency loss. Regions may, at their discretion, require a lower reporting threshold. Disturbance Control Standard is measured as the percentage recovery (R_i). For loss of generation:  if $ACE_A < 0$ then $R_i = \frac{MW_{Loss} - \max(0, ACE_A -$ MW_{Loss}  if $ACE_A >= 0$ then $R_i = \frac{MW_{Loss} - \max(0, -ACE_M)}{MW_{Loss}} * 100\%$	P1 B. 6.1 Originally from the Performance Standard Reference Document.	

Proposed Draft Version 0 Standard Language		Existing Document Reference	Comments
	where: MW_{LOSS} is the MW size of the Disturbance as measured at the beginning of the loss, ACE_A is the pre-disturbance ACE, ACE_M is the maximum algebraic value of ACE measured within the fifteen minutes following the Disturbance event. A Balancing Authority or reserve sharing group may, at their discretion, set $ACE_M = ACE_{15\ min}$, and ACE_M is the minimum algebraic value of ACE measured within the fifteen minutes following the Disturbance event. A Balancing Authority or reserve sharing group may, at their discretion, set $ACE_M = ACE_{15\ min}$. **Determination of MW_{LOSS}.** Record the MW_{LOSS} value as measured at the site of the loss to the extent possible. The value should not be measured as a change in ACE since governor response and AGC response may introduce error.		
	Determination of ACE_A. Base the value for ACE_A on the average ACE over the period just prior to the start of the Disturbance. Average over a period between 10 and 60 seconds prior and include at least 4 scans of ACE. In the illustration to the right, the horizontal line represents an averaging of ACE for 15 seconds prior to the start of the Disturbance with a result of ACE_A = - 25 MW.	6.1.1	
	Determination of ACE_M or ACE_m. ACE_m is the maximum value of ACE measured within fifteen minutes following a given disturbance. At the discretion of the Balancing Authority or of the Reserve Sharing Group, compliance may be based on the ACE measured fifteen minutes following the Disturbance, i.e., $ACE_M = ACE_{15\ min}$.	6.1.2	
	ACE_m is the minimum value of ACE measured within fifteen minutes following a given disturbance. At the discretion of the Balancing Authority or of the Reserve Sharing Group, compliance may be based on the ACE measured fifteen minutes following the	6.1.3	
		6.2	

Proposed Draft Version 0 Standard Language		Existing Document Reference	Comments
			
Regional Differences			
Compliance Monitoring Process	Compliance with the Disturbance Control Standard (DCS) shall be measured on a percentage basis as set forth in the NERC Performance Standard Training Document. **Periodic Review** CONTROL AREAS and/or RESERVE SHARING GROUPS must return one completed copy of DCS form "NERC Control Performance Standard Survey-All Interconnections" each quarter to the Region as per set dates. The Regional Reliability Council must submit a summary document reporting compliance with DCS to NERC no later than the 20th day of the month following the end of the quarter. **Periodic Compliance Monitoring** Compliance for DCS will be evaluated for each reporting period. Each BALANCING AUTHORITY or RESERVE SHARING GROUP shall submit one completed copy of DCS Form, "NERC Control Performance Standard Survey – All Interconnections" to its Resources Subcommittee Survey Contact no later than the 10th day following the end of the calendar quarter (i.e. April 10th, July 10th, October 10th, January 10th). The Resources Subcommittee Survey Contact shall submit the survey to NERC	P1T2	

Proposed Draft Version 0 Standard Language		Existing Document Reference	Comments
	no later than the 20th day following the end of the calendar quarter.		
Measuring Responsibility	Regional Reliability Council	P1T2	
Full Compliance	CONTROL AREA or RESERVE SHARING GROUP returned the ACE to zero or to its pre-disturbance level within the DISTURBANCE RECOVERY PERIOD, following the start of all Reportable Disturbances. DCS is calculated quarterly and compliance evaluated as the Average Percentage Recovery (APR) as defined in the Performance Standard Training Document.	P1T2	
Levels of Non Compliance	Each Balancing Authority or Reserve Sharing Group not meeting the Disturbance Control Standard during a given calendar quarter shall increase its Contingency Reserve obligation for the calendar quarter (offset by one month) following the evaluation by the NERC or Region Compliance Monitor . [e.g. For the first calendar quarter of the year, the penalty is applied for May, June, and July.] The increase shall be directly proportional to the non-compliance with the Disturbance Control Standard in the preceding quarter. This adjustment is not compounded across quarters, and is an additional percentage of reserve needed beyond the Most Severe Single Contingency. A Reserve Sharing Group may choose an allocation method for increasing its Contingency Reserve for the Reserve Sharing Group provided that this increase is fully allocated A representative from each Balancing Authority or Reserve Sharing Group that was non-compliant in the calendar quarter most recently completed shall provide written documentation verifying that the Balancing Authority or Reserve Sharing Group will apply the appropriate Disturbance Control Performance Adjustment beginning the first day of the succeeding month, and will continue to apply it for three months. The written documentation shall accompany the quarterly Disturbance Control Standard Report when a Balancing Authority or Reserve Sharing Group is non-compliant.	P1 B. 5. P1 B. 7.	

Proposed Draft Version 0 Standard Language		Existing Document Reference	Comments
Levels of Non Compliance	Level 1— Value of APR is less than 100% but greater than or equal Level 2 — Value of APR is less than 95% but greater than or equal to 90%. Level 3 — Value of APR is less than 90% but greater than or equal to 85%. Level 4 — Value of APR is less than 85%.	P1T2	
Reset Period	One calendar quarter without a violation.	P1T2	
Data Retention	The data that support the calculation of DCS are to be retained in electronic form for at least a one-year period. If the DCS data for a RESERVE SHARING GROUP and CONTROL AREA are undergoing a review to address a question that has been raised regarding the data, the data are to be saved beyond the normal retention period until the question is formally resolved.	P1T2	

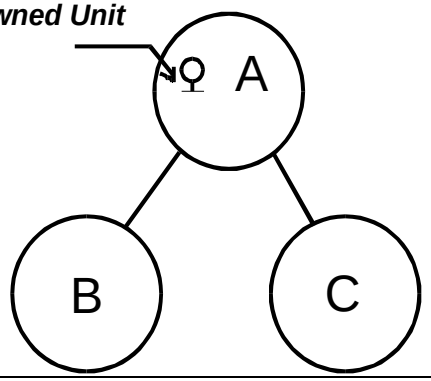
Proposed Draft Version 0 Standard Language		Existing Document Reference	Comments
Supporting Notes	Reportable Disturbances. Reportable Disturbances are contingencies that are greater than or equal to 80% of the Most Severe Single Contingency loss. Region may optionally reduce the 80% threshold, provided that normal operating characteristics are not being considered or misrepresented as contingencies. Normal operating characteristics are excluded because DCS only measures the recovery from sudden, unanticipated losses of supply-side resources. Treatment of Multiple Contingencies. 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. Multiple Contingencies within the Contingency Reserve Restoration Period. Additional Reportable Disturbances that occur after the end of the Disturbance Recovery Period but before the end of the Contingency Reserve Restoration Period shall be reported and included in the compliance evaluation. However, the Balancing Authority or Reserve Sharing Group can request a waiver from the Resources Subcommittee for the event if the contingency reserves were rendered inadequate by prior contingencies and a good faith effort to replace contingency reserve can be shown.	P1 B. 3.4 P1 B. 3.5.1 P1 B. 3.5.2 P1 B. 3.5.3	

Information from Policy not included

Information from Compliance Template not included

DCS DATA	Description	Retention Requirements
MW loss	The MW size of the disturbance as measured at the beginning of the loss.	Retain the value of MW loss used in DCS calculation.
ACEA	The pre-disturbance ACE.	Retain the value of ACEA used in DCS calculation.
ACEM	The maximum algebraic value of ACE measured within ten minutes following the disturbance event.	Retain the value of ACEM used in the DCS calculation.
ACE_m	The minimum algebraic value of ACE measured within the recovery period following the disturbance event.	Retain the value of ACE_m used in the DCS calculation.
Date of incident	The date the incident occurred.	Retain the date.
Time of incident	The time of the incident in hours, minutes, and seconds.	Retain the time as precise as possible.
Description of incident	Describe the incident in sufficient details to define the incident.	Retain sufficient details to define the incident, i.e. name and MW output of unit that tripped. Cause of incident.
Recovery Time Duration	The duration of time of the incident in hours, minutes, and seconds to have the ACE return to 0.	Retain the incident time as precise as possible.

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	003	Policy 1 – Generation Control and Performance Section C Frequency Response and Bias	
Title	Frequency Response and Bias		
Purpose	A standard method for setting BIAS is necessary to calculate the frequency bias component of ACE.		
Effective Date	February 8, 2005		
Applicability	1. BALANCING AUTHORITIES		
Requirements	R1 Each BALANCING AUTHORITY shall review its Frequency Bias Settings by January 1 of each year and recalculate its setting to reflect any change in area frequency response characteristic. The BALANCING AUTHORITY may change its Frequency Bias Setting, and the method used to determine the setting, whenever any of the factors used to determine the current bias value change. Each BALANCING AUTHORITY shall report its Frequency Bias Setting, and method for determining that setting, to the NERC Operating Committee. Each BALANCING AUTHORITY shall establish and maintain a Frequency Bias Setting that closely matches or is greater than its system response.	Policy 1C Requirement 1. Policy 1C Requirement 1.1 Policy 1C Requirement 1.2 Policy 1C Requirement 1.3	
	R2 Each BALANCING AUTHORITY shall operate its AGC on tie-line frequency bias, unless such operation is adverse to system or INTERCONNECTION reliability. The criteria for tie-line bias control follow: • The BALANCING AUTHORITY shall set its frequency bias (expressed in MW/0.1 Hz) as close as practical to the BALANCING AUTHORITY's frequency response characteristic. Frequency bias may be calculated several ways: o The BALANCING AUTHORITY may use a fixed frequency bias value which is based on a fixed, straight-line function of tie-line deviation versus frequency deviation. The BALANCING AUTHORITY shall determine the fixed value by observing and averaging the frequency response characteristic for several disturbances during on-peak hours. o The BALANCING AUTHORITY may use a variable (linear or non-linear) bias value which is based on a variable	Policy 1C Requirement 2. Policy 1C Requirement 2.1. Policy 1C Requirement 2.1.1 Policy 1C Requirement 2.1.2	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	function of tie-line deviation to frequency deviation. The BALANCING AUTHORITY shall determine the variable frequency bias value by analyzing frequency response as it varies with factors such as load, generation, governor characteristics, and frequency.		
	R3 BALANCING AUTHORITIES that use Dynamic Scheduling or Pseudo-ties for jointly owned units shall reflect their respective share of the unit governor droop response in their respective Frequency Bias Setting. Fixed schedules for Jointly Owned Units mandate that the BALANCING AUTHORITY (A) that contains the Jointly Owned Unit must incorporate the respective share of the unit governor droop response for any BALANCING AUTHORITIES that have fixed schedules (B and C). The BALANCING AUTHORITIES that have a fixed schedule (B and C) but do not contain the Jointly Owned Unit should not include their share of the governor droop response in their Frequency Bias Setting. ***Jointly Owned Unit***  	Policy 1C Requirement 2.2	
	R4 BALANCING AUTHORITIES that serve native load shall have a monthly average Frequency Bias Setting that is at least 1% of the BALANCING AUTHORITY's estimated yearly peak demand per 0.1 Hz change. BALANCING AUTHORITIES that do not serve native load shall have a monthly average Frequency Bias Setting that is at least 1% of its estimated maximum generation level in the coming year per 0.1 Hz change.	Policy 1C Requirement 2.3 Policy 1C Requirement 2.4	
	R5 A BALANCING AUTHORITY that is performing Overlap Regulation Service shall increase its Frequency Bias Setting to match the	Policy 1C Requirement 2.5	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	frequency response of the entire area being controlled. A BALANCING AUTHORITY that is performing Supplemental Regulation Service shall not change its Frequency Bias Setting.		
Measures	Not Specified.		
Regional Differences	None Identified.		
Compliance Monitoring Process	Not Specified.		
Levels of Non Compliance	Not Specified.		
Levels of Non Compliance	Not Specified.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	004	Policy 1 – Generation Control and Performance Section D Time Control Standard	The Drafting Team recommends time error correction procedures become NAESB business practice standards, but the ability to halt a time error correction for reliability considerations should remain a reliability standard.
Title	Time Error Correction		
Purpose	INTERCONNECTION frequency is normally scheduled at 60.00 Hz and controlled to that value. The control is imperfect and over time the frequency will average slightly above or below 60.00 Hz resulting in electric clocks developing an error relative to true time. When the error exceeds pre-set limits, corrective action is taken by adjusting the scheduled frequency; a practice termed Time Error Correction.	Policy 1 Section D	
Effective Date	February 8, 2005		
Applicability	1. BALANCING AUTHORITIES 2. RELIABILITY AUTHORITIES		
Requirements	R1 Any RELIABILITY AUTHORITY in an INTERCONNECTION shall have the authority to terminate a time error correction in progress for reliability considerations. Any RELIABILITY AUTHORITY may request the halt of a scheduled time error correction that has not begun. BALANCING AUTHORITIES that have reliability concerns with the execution of a time error correction shall notify their RELIABILITY AUTHORITY and request the termination of a time error correction in progress.	Policy 1D Requirement 4.	This requirement could be moved to Standard 038 on RELIABILITY AUTHORITY Current Day Operations, eliminating the need for this standard.
Measures	Not Specified.		
Regional Differences	None Identified.		
Compliance Monitoring Process	Not Specified.		
Levels of Non Compliance	Not Specified.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	005	Policy 1 – Generation Control and Performance Section E Automatic Generation Control Standard	
Title	Automatic Generation Control		
Purpose	BALANCING AUTHORITIES utilize AUTOMATIC GENERATION CONTROL (AGC) to automatically direct the loading of REGULATING RESERVE. AGC is used to limit the magnitude of AREA CONTROL ERROR (ACE) variations to the CPS bounds. This standard contains requirements that apply to the BALANCING AUTHORITY AGC needed to calculate ACE and to routinely deploy the REGULATING RESERVE.		
Effective Date			
Applicability	1. BALANCING AUTHORITIES 2. GENERATOR OPERATORS 3. TRANSMISSION OPERATORS 4. LOAD SERVING ENTITIES		
Requirements	R1 All GENERATOR OPERATORS, TRANSMISSION OPERATORS, and LOAD SERVING ENTITIES having load, generation, or transmission facilities operating in an INTERCONNECTION shall ensure that load, generation, or transmission facilities are included within the metered boundaries of a BALANCING AUTHORITY AREA.		
	R2 Each BALANCING AUTHORITY shall maintain regulating reserves that can be controlled by AGC to meet the Control Performance Measure.	Policy 1E Requirement 2.1	
	R3 A BALANCING AUTHORITY providing regulation service shall ensure that adequate metering, communications and control equipment are employed to prevent such service from becoming a BURDEN on the INTERCONNECTION or other BALANCING AUTHORITY AREAS.	Policy 1E Requirement 2.2.1	
	R4 A BALANCING AUTHORITY providing regulation service shall notify the host BALANCING AUTHORITY for whom it is controlling if it is unable to provide the service, as well as any intermediary BALANCING AUTHORITIES.	Policy 1E Requirement 2.2.2	

Proposed Draft Version 0 Standard Language			Existing Document References	Comments
	R5	A BALANCING AUTHORITY receiving regulation service shall ensure that backup plans are in place to provide replacement regulation service should the supplying BALANCING AUTHORITY no longer be able to provide this service.	Policy 1E Requirement 2.2.3	
	R6	The BALANCING AUTHORITY's Automatic Generation Control (AGC) shall compare total Net Actual Interchange to total Net Scheduled Interchange plus frequency bias obligation to determine the BALANCING AUTHORITY's Area Control Error (ACE). Single BALANCING AUTHORITIES operating asynchronously may employ alternative ACE calculations such as (but not limited to) flat frequency control. If a BALANCING AUTHORITY is unable to calculate ACE for more than 30 minutes it shall notify its RELIABILITY AUTHORITY. The BALANCING AUTHORITY shall operate AGC continuously unless such operation adversely impacts the reliability of the Interconnection. If AGC has become inoperative, the BALANCING AUTHORITY shall use manual control to adjust generation to maintain the Net scheduled Interchange.	Policy 1E Requirement 3.1 Policy 1E Requirement 3.2 Policy 1E Requirement 3.3	
	R7	The BALANCING AUTHORITY shall ensure that data-acquisition for and calculation of ACE occur at least every six seconds. Each BALANCING AUTHORITY shall provide redundant and independent frequency metering equipment that shall automatically activate upon detection of failure of the primary source. This overall installation shall provide a minimum availability of 99.95%.	Policy 1E Requirement 4.1 Policy 1E Requirement 4.2	
	R8	The BALANCING AUTHORITY shall include all INTERCHANGE SCHEDULES with ADJACENT BALANCING AUTHORITIES in the calculation of Net Scheduled Interchange for the Area Control Error (ACE) equation. BALANCING AUTHORITIES with an HVDC link to another BALANCING AUTHORITY connected asynchronously to their INTERCONNECTION may choose to omit the INTERCHANGE SCHEDULE related to the HVDC link from the ACE equation if it is modeled as internal generation or load.	Policy 1E Requirement 4.3.1 Policy 1E Requirement 4.3.1.1	
	R9	The BALANCING AUTHORITY shall include all Dynamic Schedules in the calculation of Net Scheduled Interchange for the ACE equation.	Policy 1E Requirement 4.3.2	
	R10	BALANCING AUTHORITIES shall use agreed upon ramp rates in the	Policy 1E	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	Scheduled Interchange values to calculate ACE.	Requirement 4.3.3	
	R11 Each BALANCING AUTHORITY shall include all tie-line flows with ADJACENT BALANCING AUTHORITY Areas in the ACE calculation. BALANCING AUTHORITIES that share a tie shall ensure tie-line MW metering is telemetered to both control centers, and emanates from a common, agreed-upon source using common primary metering equipment. BALANCING AUTHORITIES shall ensure that MWh data is telemetered or reported at the end of each hour. BALANCING AUTHORITIEs shall ensure the power flow and ACE signals that are utilized for calculating BALANCING AUTHORITY performance or that are transmitted for regulation service are not filtered prior to transmission, except for anti-aliasing filtering of tie lines. BALANCING AUTHORITIES shall install common metering equipment where Dynamic Schedules or Pseudo-Ties are implemented between two or more BALANCING AUTHORITIES to deliver the output of Jointly Owned Units or to serve remote load.	P1 E. 4.4.1 Policy 1E Requirement 4.4.2 Policy 1E Requirement 4.4.3 Policy 1E Requirement 4.4.4	
	R12 Each BALANCING AUTHORITY shall perform hourly error checks using tie-line MWh meters with common time synchronization to determine the accuracy of its control equipment. The BALANCING AUTHORITY shall adjust the component (e.g., tie line meter) of ACE that is in error (if known) or use the interchange meter error (IME) term of the ACE equation to compensate for any equipment error until repairs can be made.	Policy 1E Requirement 4.5.1 Policy 1E Requirement 4.5.2	
	R13 The BALANCING AUTHORITY shall provide its operating personnel with sufficient instrumentation and data recording equipment to facilitate monitoring of control performance, generation response, and after-the-fact analysis of area performance. As a minimum, the BALANCING AUTHORITY shall provide its operating personnel with real-time values for Area Control Error (ACE), INTERCONNECTION frequency and Net Actual Interchange with each ADJACENT BALANCING AUTHORITY AREA. The BALANCING AUTHORITY shall provide adequate and reliable backup power supplies and shall periodically test these supplies at the BALANCING AUTHORITY's control center and other critical locations to ensure continuous operation of AGC and vital data recording equipment during loss of the normal power supply.	Policy 1E Requirement 4.6.1 Policy 1E Requirement 4.6.2	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	R14 The BALANCING AUTHORITY shall sample data at least at the same periodicity with which ACE is calculated. The BALANCING AUTHORITY shall flag missing or bad data for operator display and archival purposes. The BALANCING AUTHORITY shall collect data coincident, to the greatest practical extent; i.e., ACE, Interconnection frequency, Net Actual Interchange, and other data shall all be sampled at the same time. The BALANCING AUTHORITY shall adhere to the minimum values for measuring devices as listed below: Device — Accuracy Digital frequency transducer — ≤ 0.001 Hz MW, MVAR, and voltage transducer — ≤ 0.25 % of full scale Remote terminal unit — ≤ 0.25 % of full scale Potential transformer — ≤ 0.30 % of full scale Current transformer — ≤ 0.50 % of full scale	Policy 1E Requirement 4.7.1 Policy 1E Requirement 4.7.2 Policy 1E Requirement 4.7.3 Policy 1E Requirement 4.7.4	
	R15 Each BALANCING AUTHORITY shall at least annually check and calibrate its time error and frequency devices against a common reference.	Policy 1E Requirement 5.	
Measures	Not Specified.		
Regional Differences	None Identified.		
Compliance Monitoring Process	Data Retention: • Each BALANCING AUTHORITY shall retain its ACE, actual frequency, Scheduled Frequency, Net Actual Interchange, Net Scheduled Interchange, tie-line meter error correction and Frequency Bias Setting data in digital format at the same scan rate at which the data is collected for at least one year. • Each BALANCING AUTHORITY or RESERVE SHARING GROUP shall retain documentation of the magnitude of each REPORTABLE DISTURBANCE as well as the ACE charts and/or samples used to calculate the BALANCING AUTHORITY's or RESERVE SHARING GROUP's disturbance recovery values. The data shall be retained for one year following the reporting quarter for which the data was recorded. • BALANCING AUTHORITIES shall be prepared to supply data to	Policy 1E Requirement 4.8.1 Policy 1E Requirement 4.8.2 Policy 1E Requirement 4.8.3	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	NERC in the industry standard format (defined below): o Within one week upon request, BALANCING AUTHORITIES shall provide NERC or the Regional Reliability Organization CPS source data in daily CSV files with time stamped one minute averages of: 1) ACE and 2) Frequency Deviation from Schedule. o Within one week upon request, BALANCING AUTHORITIES shall provide NERC or the Regional Reliability Organization DCS source data in CSV files with time stamped scan rate values for: 1) ACE and 2) Frequency Deviation from Schedule for a time period, from two minute prior to thirty minutes after the identified disturbance.	4.8.3.1 4.8.3.2	
Levels of Non Compliance	Not Specified.		
Levels of Non Compliance	Not Specified.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	006	Policy 1 – Generation Control and Performance Section F Inadvertent Interchange	Inadvertent Interchange payback in-kind is being developed by NAESB as a business practice standard. The remaining requirements of Policy 1F are captured in this standard.
Title	Inadvertent Interchange		
Purpose	This standard defines the requirements for capturing inadvertent data for the purpose of ensuring that reliability is not compromised by unscheduled flows. INADVERTENT INTERCHANGE provides a measure of non-scheduled INTERCHANGE and bilaterally scheduled inadvertent payback. These transfers are caused by such factors as BALANCING AUTHORITY AREA regulation and frequency response, metering errors in frequency and/or interchange measurements (either scheduled or actual), unilateral INADVERTENT INTERCHANGE payback and human errors. This standard defines a process for monitoring BALANCING AUTHORITIES to ensure that, over the long term, the BALANCING AUTHORITY AREAS do not excessively depend on other BALANCING AUTHORITY AREAS in the INTERCONNECTION for meeting their demand or INTERCHANGE obligations.		
Effective Date	February 8, 2005		
Applicability	1. BALANCING AUTHORITIES		
Requirements	R1 A BALANCING AUTHORITY shall calculate and record hourly INADVERTENT INTERCHANGE.	Policy 1F Requirement 1.	
	R2 Each BALANCING AUTHORITY shall include all AC tie lines that connect to its ADJACENT BALANCING AUTHORITY AREAS in its INADVERTENT INTERCHANGE account. The BALANCING AUTHORITY shall take into account interchange served by jointly owned generators.	Policy 1F Requirement 2.	
	R3 A BALANCING AUTHORITY shall ensure all of its BALANCING AUTHORITY AREA interconnection points are equipped with common MWh meters, with readings provided hourly to the control centers of both ADJACENT BALANCING AUTHORITIES.	Policy 1F Requirement 3.	
	R4 ADJACENT BALANCING AUTHORITY AREAS shall operate to a	Policy 1F	

Proposed Draft Version 0 Standard Language			Existing Document References	Comments
		common NET INTERCHANGE SCHEDULE and ACTUAL NET INTERCHANGE value and shall record these hourly quantities, with like values but opposite sign. Each BALANCING AUTHORITY shall compute its INADVERTENT INTERCHANGE based on the following:	Requirement 4.	
		Each BALANCING AUTHORITY, by the end of the next business day, shall agree with its ADJACENT BALANCING AUTHORITIES to:	Policy 1F Requirement 4.1	
		The hourly values of NET INTERCHANGE SCHEDULE.	Policy 1F Requirement 4.2	
		The hourly integrated MWh values of NET ACTUAL INTERCHANGE		
		Each BALANCING AUTHORITY shall use the agreed-to daily and monthly accounting data to compile its monthly accumulated INADVERTENT INTERCHANGE for the ON-PEAK and OFF-PEAK hours of the month.	Policy 1F Requirement 4.3	
		A BALANCING AUTHORITY shall make after-the-fact corrections to the agreed-to daily and monthly accounting data only as needed to reflect actual operating conditions (e.g. a meter being used for control was sending bad data). Changes or corrections based on non-reliability considerations shall not be reflected in the BALANCING AUTHORITY's INADVERTENT INTERCHANGE. After-the-fact corrections to scheduled or actual values will not be accepted without agreement of the ADJACENT BALANCING AUTHORITY(s).		
	R5	ADJACENT BALANCING AUTHORITIES that cannot mutually agree upon their respective NET ACTUAL INTERCHANGE or NET SCHEDULED INTERCHANGE quantities by the 15th calendar day of the following month shall, for the purposes of dispute resolution, submit a report to their respective Resources Subcommittee Survey Contact. The report shall describe the nature and the cause of the dispute as well as a process for correcting the discrepancy. The Dispute Resolution Process is described in Appendix 1F, "Inadvertent Interchange Dispute Resolution Process and Error Adjustment Procedures."	Policy 1F Requirement 6.2	The Drafting Team recommends that a separate dispute resolution procedure not be maintained.
Regional	None Identified			

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Differences			
Compliance Monitoring Process	Each Balancing Authority shall submit a monthly summary of Inadvertent Interchange as detailed in Appendix 1F, "Inadvertent Interchange Energy Accounting Practices and Dispute Resolution Process." These summaries shall not include any after-the-fact changes that were not agreed to by the Source BALANCING AUTHORITY, Sink BALANCING AUTHORITY and all Intermediary BALANCING AUTHORITY(s). Inadvertent Interchange summaries shall include at least the previous accumulation, net accumulation for the month, and final net accumulation, for both the "on-peak" and "off-peak" periods. Each BALANCING AUTHORITY shall submit its monthly summary report to its Resources Subcommittee Survey Contact by the 15th calendar day of the following month. The Resources Subcommittee Survey Contact will prepare a composite tabulation and submit that tabulation to the NERC staff by the 22nd calendar day of the month. Each BALANCING AUTHORITY shall perform an Area Interchange Error (AIE) Survey as requested by the NERC Operating Committee to determine the BALANCING AUTHORITY's Interchange error(s) due to equipment failures or improper scheduling operations, or improper AGC performance. Each Region shall prepare an Inadvertent Interchange summary monthly to monitor the BALANCING AUTHORITIES' monthly INADVERTENT INTERCHANGE and all-time accumulated INADVERTENT INTERCHANGE. Each Region shall submit a monthly accounting to NERC by the 22nd day following the end of the month being summarized.	Policy 1F Requirement 6. Policy 1F Requirement 6.1 Policy 1F Requirement 6.2 Policy 1G Requirement 1.1	
Levels of Non Compliance	A BALANCING AUTHORITY that neither submits a report to the Resources Subcommittee Survey Contact, nor supplies a reason for not submitting the required data, by the 20th calendar day of the following month shall be considered non-compliant.	Policy 1F Requirement 6.2.1	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	007	Policy 2 — Transmission Section A Transmission Operations	
Title	Transmission Security		
Purpose	To ensure that the transmission system is operated so that instability, uncontrolled separation, or cascading outages will not occur as a result of the most severe single contingency and specified multiple contingencies.		
Effective Date			
Applicability	1. RELIABILITY AUTHORITIES 2. BALANCING AUTHORITIES 3. TRANSMISSION OPERATORS		
Requirements	R1 A TRANSMISSION OPERATOR shall operate so that instability, uncontrolled separation, or cascading outages will not occur as a result of the most severe single contingency.	Policy 2A	
	R2 A TRANSMISSION OPERATOR shall, when practical, operate to protect against instability, uncontrolled separation, or cascading outages resulting from multiple outages, as specified by Regional Reliability Council policy.	Policy 2A Requirement 1.1	The vagueness of the multiple outage criteria referenced here should be addressed in Version 1.
	R3 RELIABILITY AUTHORITIES and TRANSMISSION OPERATORS, individually and jointly, shall develop, maintain, and implement formal policies and procedures to provide for transmission security. These policies and procedures shall address the execution and coordination of activities that impact inter- and intra-Regional security, including: • Equipment ratings • Monitoring and controlling voltage levels and real and reactive power flows • Switching transmission elements	Policy 2A Requirement 1.	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	• Planned outages of transmission elements • Development of Interconnected Reliability Operating Limits and System Operating Limits • Responding to Interconnected Reliability Operating Limits and System Operating Limit violations.		
Measures	Not Specified		
Regional Differences	Not Identified		
Compliance Monitoring Process	Not Specified		
Levels of Non Compliance	Not Specified		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	008	Policy 2 Transmission Section A Transmission Operations Compliance Template P2T1	
Title	Reporting System Operating Limit (SOL) and Interconnected Reliability Operating Limit (IROL) Violations		
Purpose	This standard requires SYSTEM OPERATING LIMIT (SOL) and INTERCONNECTED RELIABILITY OPERATING LIMIT (IROL) violations to be reported to other reliability entities, so that affected entities may take necessary actions to protect the reliability of their systems and the INTERCONNECTION.		
Effective Date	February 8, 2005		
Applicability	1. TRANSMISSION OPERATORS 2. BALANCING AUTHORITIES		
Requirements	R1 A TRANSMISSION OPERATOR shall inform its RELIABILITY AUTHORITY when an IROL or SOL has been exceeded and the actions being taken to return the system to within limits.	Compliance Template P2T1	
	R2 Following a contingency or other event that results in an INTERCONNECTED RELIABILITY OPERATING LIMIT violation, the TRANSMISSION OPERATOR shall return its transmission system to within IROL as soon as possible, but no longer than 30 minutes.	Policy 2A Requirement 2	The Drafting Team adopted policy language over the compliance template here because the policy was more conservative with respect to reliability. This requirement is also consistent with Policy 9E Requirement 1.4.4.
	R3 A TRANSMISSION OPERATOR shall take all appropriate action up to and including shedding of firm load in order to comply with Requirement 2 above.	Policy 2A Requirement 1.2	
	R4 The RELIABILITY AUTHORITY shall evaluate actions taken to address an SOL or IROL violation and, if the actions taken are not appropriate or sufficient, direct actions as required to the TRANSMISSION OPERATOR or BALANCING AUTHORITY to return the	Compliance Template P2T2 Policy 2A Requirement 1.1	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	system to within limits.		
	R5 The RELIABILITY AUTHORITY shall report each IROL violation that exceeds 30 minutes in duration to the Regional Reliability Organization and NERC within 72 hours.	Policy 2A Requirement 2.1.1	This should be considered as a compliance monitoring or administrative procedure rather than a standard.
Measures	Evidence that the TRANSMISSION OPERATOR informed the RELIABILITY AUTHORITY when an IROL or SOL was exceeded and the actions they took to return the system to within limits. Evidence that the TRANSMISSION OPERATOR returned the system to within IROL within 30 minutes for each incident that an IROL, or SOL that became an IROL due to changed system conditions, was exceeded. Evidence that the Reliability Authority evaluated actions and provided direction as required to the Control Area Operator or Transmission Operator to return the system to within limits.	Compliance Template P2T1	
Regional Differences	None Identified		
Compliance Monitoring Process	A TRANSMISSION OPERATOR shall report to its RELIABILITY AUTHORITY all occurrences in which an INTERCONNECTED RELIABILITY OPERATING LIMIT or SYSTEM OPERATING LIMIT is exceeded. The RELIABILITY AUTHORITY shall report any IROL violation or any SOL violation exceeding 30 minutes to the Regional Reliability Organization. The Reliability Authority shall report any SOL violation that has become an IROL violation because of changed system conditions; i.e. exceeding the limit will require action to prevent: 1) System instability; 2) Unacceptable system dynamic response or equipment tripping; 3) Voltage levels in violation of applicable emergency limits; 4) Loadings on transmission facilities in violation of applicable emergency limits; 5) Unacceptable loss of load based on regional and/or NERC		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	criteria. Each Regional Reliability Organization shall report any such violations of to NERC via the NERC Compliance Reporting process. The data retention period is three months. The reset period is monthly. RELIABILITY COORDINATORS shall report to its Regional Reliability Council any occurrences where an IROL violation extended beyond 30 minutes. Each Region shall report compliance and violations to NERC via the NERC Compliance Reporting process.		
Levels of Non Compliance	The TRANSMISSION OPERATOR did not inform the RELIABILITY AUTHORITY of an IROL or SOL (for which actions are required for items 1 through 5) violation and the actions they are taking to return the system to within limits, or The Transmission Operator did not take corrective actions as directed by the RELIABILITY AUTHORITY to return the system to within the IROL within 30 minutes. (See table below) The limit violation was reported to the RELIABILITY COORDINATOR who did not provide appropriate direction to the Transmission Operator resulting in an IROL violation in excess of 30 minutes duration.		

Percentage by which IROL or SOL that has become an IROL is exceeded	**Limit exceeded for more than 30 minutes, up to 35 minutes.**	**Limit exceeded for more than 35 minutes, up to 40 minutes.**	**Limit exceeded for more than 40 minutes, up to 45 minutes.**	**Limit exceeded for more than 45 minutes.**
Greater than 0%, up to and including 5%	Level 1	Level 2	Level 2	Level 3
Greater than 5%, up to and including 10%	Level 2	Level 2	Level 3	Level 3
Greater than 10%, up to and including 15%	Level 2	Level 3	Level 3	Level 4
Greater than 15%, up to and including 20%	Level 3	Level 3	Level 4	Level 4
Greater than 20%, up to and including 25%	Level 3	Level 4	Level 4	Level 4
Greater than 25%	Level 4	Level 4	Level 4	Level 4

Percentage used in the left column is the flow measured at the end of the time period (30, 35, 40, or 45 minutes)

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	009	Policy 2 — Transmission – Section B Voltage and Reactive Control	
Title	Voltage and Reactive Control		
Purpose	To ensure voltage levels, reactive flows, and reactive resources are monitored, controlled, and maintained within limits in real time.	Policy 2B Requirement 1.	
Effective Date	February 8, 2005		
Applicability	1. RELIABILITY AUTHORITIES 2. BALANCING AUTHORITIES 3. TRANSMISSION OPERATORS 4. GENERATOR OPERATORS 5. PURCHASING SELLING ENTITIES		
Requirements	R1 Each TRANSMISSION OPERATOR and RELIABILITY AUTHORITY, individually and jointly, shall ensure that formal policies and procedures are developed, maintained, and implemented for monitoring and controlling voltage levels and MVAR flows within their individual areas and with the areas of neighboring TRANSMISSION OPERATORS and RELIABILITY AUTHORITIES.	Policy 2B Requirement 1.	
	R2 Each TRANSMISSION OPERATOR shall acquire sufficient reactive resources within its area to protect the voltage levels under normal and contingency conditions. This includes the TRANSMISSION OPERATOR'S share of the reactive requirements of interconnecting transmission circuits.	Policy 2B Requirement 2.	
	R3 Each PURCHASING-SELLING ENTITY shall arrange for (self-provide or purchase) reactive resources to satisfy its reactive requirements identified by each BALANCING AUTHORITY and/or TRANSMISSION OPERATOR.	Policy 2B Requirement 2.1	
	R4 Each TRANSMISSION OPERATOR shall operate its capacitive and inductive reactive resources within its area to maintain system and INTERCONNECTION voltages within established limits.	Policy 2B Requirement 3.	
	R5 The TRANSMISSION OPERATOR, if necessary, shall take actions to	Policy 2B	This requirement may be

Proposed Draft Version 0 Standard Language			Existing Document References	Comments
		maintain voltage levels, including reactive generation scheduling, transmission line and reactive resource switching, etc., and load shedding.	Requirement 3.1	somewhat redundant with Requirement 4, unless this requirement can be clarified to refer to more urgent actions to avoid a critical voltage violation.
	R6	A TRANSMISSION OPERATOR shall maintain reactive resources to support its voltage under first contingency conditions. A TRANSMISSION OPERATOR shall disperse and locate reactive resources so that the resources can be applied effectively and quickly by the TRANSMISSION OPERATOR when contingencies occur.	Policy 2B Requirement 3.2 Policy 2B Requirement 3.2.1	
	R7	TRANSMISSION OPERATORS shall correct IROL violations resulting from reactive resource deficiencies within 30 minutes and complete the required IROL violation reporting.	Policy 2B Requirement 3.2.2	
	R8	When a generator's voltage regulator is out of service, the GENERATION OPERATOR shall maintain the generator field excitation at a level to maintain INTERCONNECTION and generator stability. The GENERATOR OPERATOR shall provide information to its TRANSMISSION OPERATOR on the status of all generation reactive power resources, including the status of voltage regulators and power system stabilizers.	Policy 2B Requirement 3.3 Policy 2B Requirement 4.2	
	R9	The TRANSMISSION OPERATOR shall provide information on the status of all transmission reactive power resources, to its RELIABILITY AUTHORITY.	P2 B. 4.1	
	R10	The TRANSMISSION OPERATOR and BALANCING AUTHORITY shall take corrective action, including load reduction, necessary to prevent voltage collapse when reactive resources are insufficient.	Policy 2B Requirement 5.	
	R11	The TRANSMISSION OPERATOR shall establish authority to direct the operation of devices necessary to regulate transmission voltage and reactive flow.	Policy 2B Requirement 6.	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Measures	Not Specified		
Regional Differences	None Identified		
Compliance Monitoring Process	Not Specified		
Levels of Non Compliance	Not Specified		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	009	Policy 2 — Transmission – Section B Voltage and Reactive Control	
Title	Voltage and Reactive Control		
Purpose	To ensure voltage levels, reactive flows, and reactive resources are monitored, controlled, and maintained within limits in real time.	Policy 2B Requirement 1.	
Effective Date	February 8, 2005		
Applicability	1. RELIABILITY AUTHORITIES 2. BALANCING AUTHORITIES 3. TRANSMISSION OPERATORS 4. GENERATOR OPERATORS 5. PURCHASING SELLING ENTITIES		
Requirements	R1 Each TRANSMISSION OPERATOR and RELIABILITY AUTHORITY, individually and jointly, shall ensure that formal policies and procedures are developed, maintained, and implemented for monitoring and controlling voltage levels and MVAR flows within their individual areas and with the areas of neighboring TRANSMISSION OPERATORS and RELIABILITY AUTHORITIES.	Policy 2B Requirement 1.	
	R2 Each TRANSMISSION OPERATOR shall acquire sufficient reactive resources within its area to protect the voltage levels under normal and contingency conditions. This includes the TRANSMISSION OPERATOR'S share of the reactive requirements of interconnecting transmission circuits.	Policy 2B Requirement 2.	
	R3 Each PURCHASING-SELLING ENTITY shall arrange for (self-provide or purchase) reactive resources to satisfy its reactive requirements identified by each BALANCING AUTHORITY and/or TRANSMISSION OPERATOR.	Policy 2B Requirement 2.1	
	R4 Each TRANSMISSION OPERATOR shall operate its capacitive and inductive reactive resources within its area to maintain system and INTERCONNECTION voltages within established limits.	Policy 2B Requirement 3.	
	R5 The TRANSMISSION OPERATOR, if necessary, shall take actions to	Policy 2B	This requirement may be

Proposed Draft Version 0 Standard Language			Existing Document References	Comments
		maintain voltage levels, including reactive generation scheduling, transmission line and reactive resource switching, etc., and load shedding.	Requirement 3.1	somewhat redundant with Requirement 4, unless this requirement can be clarified to refer to more urgent actions to avoid a critical voltage violation.
	R6	A TRANSMISSION OPERATOR shall maintain reactive resources to support its voltage under first contingency conditions. A TRANSMISSION OPERATOR shall disperse and locate reactive resources so that the resources can be applied effectively and quickly by the TRANSMISSION OPERATOR when contingencies occur.	Policy 2B Requirement 3.2 Policy 2B Requirement 3.2.1	
	R7	TRANSMISSION OPERATORS shall correct IROL violations resulting from reactive resource deficiencies within 30 minutes and complete the required IROL violation reporting.	Policy 2B Requirement 3.2.2	
	R8	When a generator's voltage regulator is out of service, the GENERATION OPERATOR shall maintain the generator field excitation at a level to maintain INTERCONNECTION and generator stability. The GENERATOR OPERATOR shall provide information to its TRANSMISSION OPERATOR on the status of all generation reactive power resources, including the status of voltage regulators and power system stabilizers.	Policy 2B Requirement 3.3 Policy 2B Requirement 4.2	
	R9	The TRANSMISSION OPERATOR shall provide information on the status of all transmission reactive power resources, to its RELIABILITY AUTHORITY.	P2 B. 4.1	
	R10	The TRANSMISSION OPERATOR and BALANCING AUTHORITY shall take corrective action, including load reduction, necessary to prevent voltage collapse when reactive resources are insufficient.	Policy 2B Requirement 5.	
	R11	The TRANSMISSION OPERATOR shall establish authority to direct the operation of devices necessary to regulate transmission voltage and reactive flow.	Policy 2B Requirement 6.	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Measures	Not Specified		
Regional Differences	None Identified		
Compliance Monitoring Process	Not Specified		
Levels of Non Compliance	Not Specified		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	010	Policy 3 – Interchange Version 5.2 Policy Subsections A. Interchange Transaction Implementation P3T3 Template	
Title	Interchange Transaction Tagging		Tagging Transactions
Purpose	To ensure that Interchange Transactions, certain Interchange Schedules, and certain intra-Balancing Area transfers using point-to-point transmission service are tagged in adequate time to allow them to be assessed for reliability impacts before being approved by the affected RELIABILITY AUTHORITIES, TRANSMISSION SERVICE PROVIDERS and BALANCING AUTHORITIES, and to allow adequate time for implementation.		
Effective Date	February 8, 2005		
Applicability	1. PURCHASE-SELLING ENTITIES 2. BALANCING AUTHORITIES		
Requirements	R1 The load-serving PURCHASING-SELLING ENTITY shall be responsible for tagging all INTERCHANGE TRANSACTIONS (those that are between BALANCING AUTHORITY AREAS) and all transfers that are entirely within a BALANCING AREA using point-to-point transmission service (including all grandfathered and "non-Order 888" point-to-point transmission service). The load-serving PURCHASING-SELLING ENTITY shall be responsible for tagging all DYNAMIC SCHEDULES at the expected average MW profile for each hour. R2 The sink BALANCING AUTHORITY shall be responsible for tagging all INTERCHANGE TRANSACTIONS established to replace unexpected generation loss, such as through prearranged reserve sharing agreements or other arrangements, and all emergency transactions to mitigate SOL or IROL violations. Such interchange shall be exempt from tagging for 60 minutes from the time at which the INTERCHANGE TRANSACTION begins, regardless of magnitude or duration.	Policy 3A Requirement 2.1 Compliance Template P3T3 Policy 3A Requirement 2.4.1	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	R3 The sink BALANCING AUTHORITY shall be responsible for tagging all Bilateral Inadvertent Interchange Payback. R4 The BALANCING AUTHORITY or PURCHASING SELLING ENTITY responsible for submitting the tag shall submit all tags to the SINK BALANCING AUTHORITY according to timing tables in Attachment 1.	Policy 3A Requirement 2.4.1 Policy 3A Requirement 2.4 Appendix 3A1	This requirement is not intended to include unilateral payback, if it is recognized by policy.
Measures	A BALANCING AUTHORITY shall meet 100% of the tagging requirements for all scheduled interchange between BALANCING AUTHORITY AREAS and within the BALANCING AREA.	Compliance Template P3T3	
Regional Differences	WECC Waiver: o Inadvertent Payback o Dynamic Schedules	Approved waiver.	
Compliance Monitoring Process	Not Specified.		
Levels of Non Compliance	Not Specified.		.

Attachment 1 – Tag Submission and Response Timetables for New Transactions

A. Eastern Interconnection – New Transactions

The table below represents the recommended business practices for tag submission and assessment deadlines within the EASTERN INTERCONNECTION. These are default requirements; some regulatory or provincially approved provider practices may have requirements that are more stringent. Under these instances, the more restrictive criteria shall be adhered to. The table describes the various minimum submission and assessment timing requirements.

Table 1: Eastern Interconnection – Timing Requirements

Transaction Duration	PSE Submit Deadline*	Actual Tag Submission Time	Provider Assessment Time	Time to Start of Transaction
Less than 24 Hours	**20 Minutes prior to start**	**≤1 Hour prior to start**	**≤ 10 Minutes from tag receipt**	**≥ 10 Min**

		>1 to <4 hours prior to start	≤20 Minutes from tag receipt	≥ 40 Min
		≥ 4 Hours prior to start	≤ 2 Hours from tag receipt	≥ 2 Hours
24 Hours or longer	4 Hours prior to start	Any	≤ 2 Hours from tag receipt	≥ 2 Hours
*Start time references are for start of the TRANSACTION not the start of the ramp.				

Tag submission timing requirements are based on the duration of the TRANSACTION. Tags representing TRANSACTIONS that run for less that one day (24 hours) must be submitted at least 20 minutes prior to the start of the TRANSACTION (excluding ramp time). Tags representing TRANSACTIONS running for one day or more (24 hours or more) must be submitted at least four hours prior to the start. Tags submitted that meet these requirements shall be considered "on-time" by the E-Tag system and may be granted conditional approval. Tags submitted that do not meet these requirements shall be considered "late" by the E-Tag system, and consequently will be denied if not explicitly approved by all parties. The E-Tag system accepts tags with a start time up to one hour prior to the current time. Tags with a start time older than one hour will be rejected as invalid. This one-hour window shall be used to submit tags to document emergency actions taken to mitigate an OPERATING SECURITY LIMIT violation (Policy 3, Section A 2.4.1). This provision shall not be used to schedule TRANSACTIONS without the proper tag (Policy 3, Section A 6.1).

Tag assessment timing requirements are based on the submission time of the tag, as well as the duration. Hourly tags submitted one hour or less prior to start must be evaluated in ten minutes. Hourly tags submitted more than one hour but less than four hours prior to start must be evaluated in 20 minutes. Tags with a duration of less than 24 hours that are submitted four hours or more prior to start must be evaluated in two hours. Tags with a duration of 24 hours or more must be evaluated in two hours.

Timing Requirements for Reallocation when in a TLR Event

During a NERC TLR event, TRANSACTIONS may be submitted to replace existing TRANSACTIONS with a lower transmission priority. The new TRANSACTION tag must be received by the Interchange Distribution Calculator no later than 35 minutes prior to the top of the hour to allow time for RELIABILITY AUTHORITY to assess the impact of reallocation.

B. Western Interconnection – New Transactions

The table below represents the recommended business practices for tag submission and assessment deadlines within the Western Interconnection. These are default requirements. The tables describe the various minimum submission and assessment timing requirements.

Table 2: Western Interconnection – Timing Requirements

Transaction	Late Status	Actual Tag	Provider	Approval/Denial	Time to Start of

Start/Submittal Time	Deadline	Submission Time*	Assessment Time	Notes	Transaction*
Start 00:00 next day or beyond when submitted prior to 18:00 of the current day	15:00 day prior to start	Any	3 hours	Passive Approval if submitted before deadline, else Passive Denial. Deferred denial	≥ 6 Hours
Start 00:00 next day and submitted between 18:00 and 23:59:59 on day prior to start – OR – start within current day		≥ 4 Hours prior to start	2 Hours from tag receipt	Passive Approval Deferred denial	≥ 2 Hours
		<4 Hours to ≥1 Hour prior to start	20 minutes from tag receipt	Passive Approval Deferred denial	≥ 40 Min
		<1 hour to ≥30 minutes prior to start	10 minutes from tag receipt	Passive Approval Deferred denial	≥ 20 Min
		<30 minutes to ≥20 minutes prior to start	10 minutes from tag receipt	Passive Approval Deferred denial	≥ 10 Min
	20 minutes prior to start	<20 minutes prior to start	5 minutes from tag receipt	Passive Denial. Deferred denial	Submission time minus maximum time of 5 minutes

Notes/Clarification:

1. **All clock times are in PPT.**
2. **Tags falling under the criteria in yellow are deemed pre-schedule tags.**
3. **Tags falling under the criteria in green are deemed real-time tags.**
4. **Pre-schedule tags submitted between 15:00 and 18:00 will be assigned LATE composite status.**
5. **Real-time tags submitted after 20 minutes prior to the start of the Transaction will be assigned LATE composite status.**

***Start-time references are for start of the Transaction, not the start of the ramp.**

Tag submission timing requirements are based on the type and duration of the TRANSACTION. Tags representing TRANSACTIONS that run for less that one day (24 hours) within the current day must be submitted at least 20 minutes prior to the start of the TRANSACTION (excluding ramp time). Tags representing TRANSACTIONS that are pre-scheduled to start the next day must be submitted by 1500 PST the day prior to the day the TRANSACTION is to start. Tags submitted that meet these requirements shall be considered "on-time" by the E-Tag system and may be granted conditional approval. Tags submitted that do not meet these requirements shall be considered "late" by the E-Tag system, and consequently will be denied if not explicitly approved by all parties.

The E-Tag system accepts tags with a start time up to one hour prior to the current time. Tags with a start time older than one hour will be rejected as invalid. This one-hour window shall be used to submit tags to document emergency actions taken to mitigate an OPERATING SECURITY LIMIT violation (Policy 3, Section A 2.4.1). This provision shall not be used to schedule TRANSACTIONS without the proper tag (Policy 3, Section A 6.1).

Tag assessment timing requirements are based on the submission time of the tag, as well as the duration. Hourly tags submitted one hour or less prior to start must be evaluated in ten minutes. Hourly tags submitted more than one hour but less than four hours prior to start must be evaluated in 20 minutes. Tags with a duration of less than 24 hours that are submitted four hours or more prior to start must be evaluated in two hours. Tags submitted for pre-scheduled service starting the next day or a future day must be evaluated in three hours.

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	011	Policy 3 – Interchange Section A. Interchange Transaction Implementation P3T3 Template	
Title	Interchange Transaction Tag Communication and Reliability Assessment		
Purpose	To ensure that the tag is provided to all entities needing the tags to make reliability assessments and to ensure all affected reliability entities assess the reliability impacts of INTERCHANGE TRANSACTIONS before approving or denying a tag. To communicate the approvals and denials of the tag and the final composite status of the tag.		
Effective Date	February 8, 2005		
Applicability	1. BALANCING AUTHORITIES 2. TRANSMISSION SERVICE PROVIDERS		
Requirements	R1 The SINK BALANCING AUTHORITY shall ensure that all tags and any modifications to tags are provided to the following entities for reliability assessment: • SINK and SOURCE BALANCING AUTHORITY or their designated SCHEDULING AGENT • INTERMEDIATE BALANCING AUTHORITIES • TRANSMISSION SERVICE PROVIDER(S) • RELIABILITY AUTHORITY(S) (receives through IDC) • SECURITY ANALYSIS SERVICE (IDC or other regional reliability tools) R2 TRANSMISSION SERVICE PROVIDERS on the SCHEDULING PATH shall be responsible for assessing and approving or denying the INTERCHANGE TRANSACTION. The TRANSMISSION SERVICE PROVIDER shall verify and assess: • Valid OASIS reservation number or transmission contract identifier • Transmission priority matches reservation • Energy profile fits within OASIS reservation	Policy 3A Requirement 2.2 Policy 3A Requirement 4	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	• OASIS reservation accommodates multiple INTERCHANGE TRANSACTIONS • Connectivity of adjacent TRANSMISSION SERVICE PROVIDERS. • Loss accounting R3 BALANCING AUTHORITIES on the SCHEDULING PATH shall be responsible for assessing and approving or denying the INTERCHANGE TRANSACTION. The BALANCING AUTHORITY shall verify and assess: • Transaction start and end time • Energy profile, including the ramp (ability of the generation to support the magnitude and maneuverability of the transaction) • Scheduling path (proper connectivity of adjacent BALANCING AUTHORITIES) R5 Each BALANCING AUTHORITY and TRANSMISSION SERVICE PROVIDER on the scheduling path shall communicate their approval or denial of the INTERCHANGE TRANSACTION to the SINK BALANCING AUTHORITY. R6 Upon receipt of approvals or denials from all of the individual BALANCING AUTHORITIES and TRANSMISSION SERVICE PROVIDERS, the SINK BALANCING AUTHORITY shall communicate the composite approval status of the INTERCHANGE TRANSACTION to the PURCHASING-SELLING ENTITY and all other BALANCING AUTHORITIES, TRANSMISSION SERVICE PROVIDERS and RELIABILITY AUTHORITIES on the scheduling path.	Policy 3A Requirement 4 Policy 3A Requirement 5 Policy 3A Requirement 5 and Policy 3B Requirement 3	
Measures	Not Specified.		
Regional Differences	MISO Waiver: o Scheduling Agent Waiver o Enhanced Scheduling Waiver	Reference existing approved waivers.	
Compliance Monitoring Process	Not Specified.		
Levels of Non Compliance	Not Specified.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	012	Policy 3 Interchange Section B Interchange Schedule Implementation P3T3 Template	
Title	Interchange Transaction Implementation		
Purpose	To ensure BALANCING AUTHORITIES confirm INTERCHANGE SCHEDULES with adjacent BALANCING AUTHORITIES prior to implementing the schedules in their ACE equations. To ensure BALANCING AUTHORITIES incorporate all confirmed schedules into their AGC ACE equations.		
Effective Date	February 8, 2005		
Applicability	1. Balancing Authorities		
Requirements	R1 Each RECEIVING BALANCING AUTHORITY shall confirm INTERCHANGE SCHEDULES with the SENDING BALANCING AUTHORITY prior to implementation in the BALANCING AUTHORITY's AREA CONTROL ERROR (ACE) equation or in the system that calculates the BALANCING AUTHORITY's AREA CONTROL ERROR equation. The SENDING BALANCING AUTHORITY and RECEIVING BALANCING AUTHORITY shall agree on: • Interchange Schedule start and end time • Energy profile, including ramp start time and rate (a) Default ramp rate for the Eastern Interconnection shall be 10 minutes equally across the Interchange Schedule start and end times. (b) Default ramp rate for the Western Interconnection shall be 20 minutes equally across the Interchange Schedule start and end times. (c) Ramp durations for Interchange Schedules implemented for compliance with NERC's Disturbance Control Standard (recovery from a disturbance condition) and Interchange Transaction curtailment in response to line loading relief procedures may be shorter than the above defaults, but must be identical for the Sending Balancing	Policy 3B Requirement 4 Policy 3B Requirement 4.1	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	Authority and Receiving Balancing Authority. • If a DC tie is on the contract path, then the SENDING BALANCING AUTHORITIES and RECEIVING BALANCING AUTHORITIES shall coordinate the INTERCHANGE SCHEDULE with the TRANSMISSION OPERATOR of the DC tie. R2 BALANCING AUTHORITIES shall implement INTERCHANGE SCHEDULES only with ADJACENT BALANCING AUTHORITIES. R3 The SINK BALANCING AUTHORITY shall be responsible for initiating implementation of each INTERCHANGE TRANSACTION as tagged. Each BALANCING AUTHORITY on the scheduling path shall incorporate each INTERCHANGE TRANSACTION into its INTERCHANGE SCHEDULES.	Policy 3 C Requirement 3.4 Policy 3B Requirement 4.1.3 Policy 3B Requirement1.	
Measures	Not Specified.		
Regional Differences	MISO Waivers: o Scheduling Agent Waiver o Enhanced Scheduling Waiver o Energy Flow Information Waiver		
Compliance Monitoring Process	Not Specified.		
Levels of Non Compliance	Not Specified.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	013	Policy 3 – Interchange Section D – Interchange Transaction Modifications Compliance Template P3T3	
Title	Interchange Transaction Modifications		
Purpose	To allow modifications to an Interchange Transaction.		
Effective Date	February 8, 2005		
Applicability	1. BALANCING AUTHORITIES 2. TRANSMISSION SERVICE PROVIDERS 3. RELIABILITY AUTHORITIES 4. PURCHASING-SELLING ENTITIES		
	R1 Any RELIABILITY AUTHORITY, TRANSMISSION SERVICE PROVIDER, SOURCE BALANCING AUTHORITY, or SINK BALANCING AUTHORITY that requires modification to an INTERCHANGE TRANSACTION due to loss of generation, loss of load, or a TLR event (or other regional congestion management practices) shall set a new limit on the INTERCHANGE TRANSACTION tag that is in progress or scheduled to be started, and shall communicate this new limit to the SINK BALANCING AUTHORITY. A GENERATOR OPERATOR or LOAD SERVING ENTITY may request the HOST BALANCING AUTHORITY to modify an interchange transaction due to loss of generation or load. R2 The SINK BALANCING AUTHORITY shall be responsible for implementing the required modifications to the INTERCHANGE TRANSACTIONS tag to comply with the specified new limit set in Requirement 1. R3 At such time as the reliability event allows for the reloading of the transaction, the entity that initiated the curtailment shall release the limit on the INTERCHANGE TRANSACTION tag to allow reloading the transaction and shall communicate the release of the limit to the SINK BALANCING AUTHORITY.	Policy 3D	Policy #3, Section D This requirement assumes that if a limit is released, the requesting entity would be required to go through the tag request process to reload the transaction.

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	R4 A PURCHASING-SELLING ENTITY responsible for tagging a DYNAMIC INTERCHANGE SCHEDULE shall modify the tag when the energy profile deviates by more than 25% from the previously tagged energy profile. R5 A BALANCING AUTHORITY or PURCHASING-SELLING ENTITY wishing to modify an INTERCHANGE TRANSACTION shall submit a request to modify the tag to the Sink Balancing Authority according to the timing tables in Attachment 1.	Policy 3A Requirement 2.1	The Drafting Team believes that a straight 25% deviation threshold is not useful for reliability. Small transactions varying a fraction of a MW could be required to submit a new tag while a 1,000 MW transaction with a 249 MW deviation would not. The Drafting Team is requesting comment on a proposed improvement to this requirement. The proposed language is: A Purchasing-Selling Entity responsible for tagging a DYNAMIC INTERCHANGE SCHEDULE shall modify the tag when the energy profile deviates from the previously tagged profile as follows: o The transaction is 100 MW or less and the deviation is more than 10 MW; or o The transaction is greater than 100 MW and the deviation is greater than 25% (or 10%) The Drafting Team is asking commenters whether they agree with the modified structure of the requirement and the appropriate numerical cutoffs and percentages.
Measures	Not Specified.		
Regional	WECC Waiver:		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Differences	o Tagging Dynamic Schedules and Inadvertent Payback		
Compliance Monitoring Process	Not Specified.		
Levels of Non Compliance	Not Specified.		

Attachment 1

Interchange Transaction Corrections

TRANSACTION Corrections may be provided by PSE submitting the Tag to replace non-reliability data listed in a tag. As each correction is received, the Evaluation Time of the TRANSACTION will extend, based on the following rules:

- Each correction shall extend the evaluation time by ten minutes
- At no time can the evaluation time be extended past the start time of the TRANSACTION.
- Each correction shall reset the approval status of those entities affected by the correction
- The segment or segments corrected will be eligible for passive approval if the correction is received within the timelines specified below, except in the case where the TRANSACTION has already been set for passive denial. The segment or segments corrected will be subject to passive denial if the correction is not received within the timelines specified below. At no point may a TRANSACTION segment already under Passive Denial constraints be returned to Passive Approval eligibility.

Table 1: Correction Submission Requirements*

Eastern Interconnection	Western Interconnection
20 minutes prior to start	30 minutes prior to start
*Start time references are for start of the Transaction not the start of the ramp.	

Interchange Transaction Modifications

Curtailments, reloads, market-initiated modifications, and other TRANSACTION modifications that affect energy profiles must be received by and evaluated within certain times. The following tables describe the submission and evaluation requirements for such changes.

Modification requests received by the deadlines specified below shall be considered "on time," and are eligible for Passive Approval. Modification requests received past the deadlines shall be considered "late," and are considered denied unless explicitly approved by all parties.

Table 2: Eastern Interconnection – Modifications

Modification Type	Requestor Submission Deadline***	Actual Submission Time***	Evaluation Time
Reliability (Curtailments or Reloads)	20 minutes prior to modification start**	Less than 30 minutes to start	10 minutes
		30 minutes or more prior to start	15 minutes
Market – Committed Transmission Reservation(s) Reductions	N/A	N/A	N/A
Market – Committed Transmission Reservation(s) Increases, Energy Reductions, Energy Increases*	20 minutes prior to modification start**	Less than 30 minutes to start	10 minutes
		30 minutes or more prior to start	15 minutes
***Start time references are for start of the Transaction not the start of the ramp.			

Table 3: Western Interconnection – Modifications

Modification Type	Requestor Submission Deadline***	Actual Submission Time***	Evaluation Time
Reliability (Curtailments or Reloads)	25 minutes prior to modification start**	Less than 30 minutes to start	10 minutes
		30 minutes or more prior to start	15 minutes
Market – Committed Transmission Reservation(s) Reductions	N/A	N/A	N/A

Market – Committed Transmission Reservation(s) Increases, Energy Reductions, Energy Increases*	**25 minutes prior to modification start****	**Less than 30 minutes to start**	**10 minutes**
		30 minutes or more prior to start	**15 minutes**
***Start time references are for start of the Transaction not the start of the ramp.			

*See Special Exception for Cancellations below

**If received after deadline, requires active approval or will be passively denied

Special Exception for Cancellations

A cancellation is defined as setting both committed transmission reservation(s) and energy flow to zero for the duration of the TRANSACTION **prior** to the start of a TRANSACTION but **following** that TRANSACTIONS approval. In the event that a PSE submitting the tag elects to cancel a TRANSACTION, the following timelines should be utilized:

Table 4: Special Exception for Cancellations Submission and Evaluation Timing

Region	Submission Deadline*	Evaluation Time
Eastern Interconnection	**15 minutes prior to transaction start**	**If received by deadline, no evaluation required. Request is automatically approved.**
		If not received by deadline, request is not eligible for Special Exception for Cancellations, and must be processed normally.
Western Interconnection	**20 minutes prior to transaction start**	**If received by deadline, no evaluation required. Request is automatically approved.**
		If not by deadline, request is not eligible for Special Exception for Cancellations, and must be processed normally.
*Start time references are for start of the Transaction not the start of the ramp.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	014	Policy 4 — System Coordination Policy Section A — Monitoring System Conditions	This standard is one of several that have potential redundancy with other standards. The Drafting Team is seeking industry comment on the extent to which redundancies should be eliminated in Version 0.
Title	Monitoring System Conditions		
Purpose	To ensure critical reliability parameters are monitored in real-time.		
Effective Date	February 8, 2005		
Applicability	1. RELIABILITY AUTHORITIES 2. BALANCING AUTHORITIES 3. TRANSMISSION OPERATORS 4. GENERATOR OPERATORS		
Requirements	R1 GENERATOR OPERATORS shall inform the HOST BALANCING AUTHORITY and the TRANSMISSION OPERATOR of all generation resources available for use. TRANSMISSION OPERATORS and BALANCING AUTHORITIES shall inform the RELIABILITY AUTHORITY and other affected BALANCING AUTHORITIES and TRANSMISSION OPERATORS of all generation and transmission resources available for use.	Policy 4A Requirement 1.	Translating to active voice and the Functional Model forces the question of hierarchy or reporting reliability information that is implied in the Functional Model. The Drafting Team has made one interpretation here and recognizes the need for further work and industry input. One approach would be to have the standard apply only to Bas and TOs and assume that Generator Operator and other functions are obligated through service agreements or connection requirements.
	R2 RELIABILITY AUTHORITIES, BALANCING AUTHORITIES and TRANSMISSION OPERATORS shall monitor applicable transmission line status, MW and MVAR flows, voltage, LTC settings and status of rotating and static reactive resources.	Policy 4A Requirement 2.	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	R3 Each RELIABILITY AUTHORITY, BALANCING AUTHORITY AND TRANSMISSION OPERATOR shall provide appropriate technical information concerning protective relays to operating personnel.	Policy 4A Requirement 3.	
	R4 The RELIABILITY AUTHORITY, BALANCING AUTHORITY and TRANSMISSION OPERATOR shall have information, including weather forecasts and past load patterns, available to predict the system's near-term load pattern.	Policy 4A Requirement 4.	Is load forecasting required for reliability or not, if not, why is this information required?
	R5 Each RELIABILITY AUTHORITY, BALANCING AUTHORITY and TRANSMISSION OPERATOR shall use monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions and to indicate, if appropriate, the need for corrective action.	Policy 4A Requirement 5.	
	R6 Each BALANCING AUTHORITY and TRANSMISSION OPERATOR shall use sufficient metering of suitable range, accuracy and sampling rate (if applicable) to ensure accurate and timely monitoring of operating conditions under both normal and emergency situations.	Policy 4A Requirement 5.1	
	R7 RELIABILITY AUTHORITIES, BALANCING AUTHORITIES and TRANSMISSION OPERATORS shall monitor system frequency.	Policy 4A Requirement 6.	
Measures	Not Specified		
Regional Differences	None Identified		
Compliance Monitoring Process	Not Specified		
Levels of Non Compliance	Not Specified		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	015	Compliance Template P4T2 Policy 4 Section B	
Title	Operational Reliability Information		
Purpose	To provide the Reliability Authority with operating data that the Reliability Authority requires to monitor system conditions within the Reliability Authority Area.		
Effective Date	February 8, 2005		
Applicability	1. RELIABILITY AUTHORITY 2. TRANSMISSION OPERATORS 3. BALANCING AUTHORITIES 4. PURCHASING SELLING ENTITIES		
Requirements	R1 Each BALANCING AUTHORITY and TRANSMISSION OPERATOR shall provide its RELIABILITY AUTHORITY with operating data that the RELIABILITY AUTHORITY requires for monitoring system conditions within the RELIABILITY AUTHORITY AREA. The RELIABILITY AUTHORITY shall identify the data requirements from the list in Attachment 1. The RELIABILITY AUTHORITY shall identify any additional operating information requirements, relating to operation of the bulk power system, and which data must be provided electronically.		
	R2 As a condition of receiving data from the Interregional Security Network (ISN), all ISN data recipients shall sign the NERC Confidentiality Agreement for Electric System Security Data.	Policy 4B Requirement 2. Policy 4B Requirement 1.	The Drafting Team has clarified the following requirement in the current policy: The Electric System Security Data referred to in this Policy and received over the Interregional Security Network shall be used only for operational security analysis and shall not be made available to nor used by Purchasing-Selling Entities in the wholesale merchant function.
	R3 Upon request, RELIABILITY AUTHORITIES shall, via the ISN, exchange with each other operating data that is necessary to allow the RELIABILITY AUTHORITIES to perform their	Policy 4B Requirement 4.	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	operational reliability assessments and coordinate their reliable operations. RELIABILITY AUTHORITIES shall share with each other the types of data as listed in Attachment 1, unless otherwise agreed to.	Policy 4B Requirement 4.1	
	R4 Upon request, EACH BALANCING AUTHORITY and TRANSMISSION OPERATOR shall provide to other BALANCING AUTHORITIES and TRANSMISSION OPERATORS with immediate responsibility for operational reliability, the operating data that are necessary to allow the BALANCING AUTHORITY and TRANSMISSION OPERATOR to perform its operational reliability assessment and to coordinate reliable operations. BALANCING AUTHORITIES and TRANSMISSION OPERATORS and shall provide the types of data as listed in Addendum A, unless otherwise agreed to by the BALANCING AUTHORITIES and TRANSMISSION OPERATORS with immediate responsibility for operational security.	Policy 4B Requirement 5. Policy 4B Requirement 5.1	
	R5 PURCHASING-SELLING ENTITIES shall provide information as requested by their host BALANCING AUTHORITIES and TRANSMISSION OPERATORS to enable them to conduct operational reliability assessments and coordinate reliable operations.	Policy 4B Requirement 6.	
Measures	Evidence that the RELIABILITY AUTHORITY, BALANCING AUTHORITY, TRANSMISSION OPERATOR, and PURCHASING-SELLING ENTITY is providing the information required, within the time intervals specified therein, and in a format agreed upon by the requesting RELIABILITY AUTHORITY.		
Regional Differences	None Identified.		
Compliance Monitoring Process	Periodic Review Entities will be selected for operational reviews at least every three years. Entities shall annually self-certify compliance to the measures as required by its RRC. Exception Reporting Each Region shall report compliance and violations to NERC via the NERC Compliance Reporting process.	Compliance Template P4T2	Proposed to remove the compliance monitoring section from the Version 0 standards.

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	Reset Period One Calendar year without a violation from the time of the violation		
Levels of Non Compliance	Level 1 — The Operating Authority is providing the Reliability Coordinator with the data required, in specified time intervals and format, but there are problems with consistency of delivery identified in the measuring process that need remedy (e.g., the data is not supplied consistently due to equipment malfunctions, or scaling is incorrect). Level 2 — N/A Level 3 — N/A Level 4 — The Operating Authority is not providing the Reliability Coordinator with data having the specified content, or time interval reporting, or format. The information missing is included in the RC's list of data.		

Attachment 1 – Electric System Security Data

This Attachment lists the types of data that BALANCING AUTHORITIES, RELIABILITY AUTHORITIES AND TRANSMISSION OPERATORS are expected to provide, and are expected to share with each other as explained on Policy 4B, "System Coordination – Operational Security Information."

1. Information updated at least every ten minutes. The following information to be updated at least every ten minutes:

1.1. Transmission data. Transmission data for all INTERCONNECTIONS plus all other facilities considered key, from a reliability standpoint:

1.1.1. Status

1.1.2. MW or ampere loadings

1.1.3. MVA capability

1.1.4. Transformer tap and phase angle settings

1.1.5. Key voltages

1.2. Generator data.

1.2.1. Status

1.2.2. MW and MVAR capability

1.2.3. MW and MVAR net output

1.2.4. Status of automatic voltage control facilities

1.3. Operating reserve

1.3.1. MW reserve available within ten minutes

1.4. BALANCING AUTHORITY Demand

1.4.1. Instantaneous

1.5. Interchange

1.5.1. Instantaneous actual interchange with each BALANCING AUTHORITY.

1.5.2. Current INTERCHANGE SCHEDULES with each BALANCING AUTHORITY by individual INTERCHANGE TRANSACTION, including INTERCHANGE identifiers, and reserve responsibilities.

1.5.3. INTERCHANGE SCHEDULES for the next 24 hours

1.6. Area Control Error and Frequency

1.6.1. Instantaneous area control error

1.6.2. Clock hour area control error

1.6.3. System frequency at one or more locations in the BALANCING AUTHORITY

2. Other operating information updated as soon as available

2.1. INTERCONNECTION RELIABILITY OPERATING LIMITS AND SYSTEM OPERATING LIMITS in effect.

2.2. Forecast of operating reserve at peak, and time of peak for current day and next day.

2.3. Forecast peak demand for current day and next day.

2.4. Forecast changes in equipment status

2.5. New facilities in place

2.6. New or degraded special protection systems

2.7. Emergency operating procedures in effect

2.8. Severe weather, fire, or earthquake

2.9. Multi-site sabotage

3. Data retention. There are no requirements on any RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, or Region to retain the data that they make available on the Interregional Security Network. Therefore, if the recipient of the data wishes to access historical data, it shall establish a method for saving the data it obtains from the Network.

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	016	Compliance Template P4T4 Policy 4 Section C	
Title	Planned Outage Coordination		
Purpose	Scheduled generator and transmission outages that may affect the reliability of interconnected operations must be planned and coordinated among BALANCING AUTHORITIES, TRANSMISSION OPERATORS, AND RELIABILITY AUTHORITIES.		
Effective Date	February 8, 2005		
Applicability	1. Generator Operators 2. Transmission Operators 3. Balancing Authorities 4. Reliability Authorities		This standard provides another example of the question whether Generator Operators are intended to be part of "Operating Authorities" or should their obligations be addressed through service agreements?
Requirements	R1 GENERATOR OPERATORS and TRANSMISSION OPERATORS shall provide outage information daily, by noon prevailing time of the their RELIABILITY AUTHORITY, for scheduled generator and bulk transmission outages planned for the next day (any foreseen outage of a transmission line or transformer greater than 100 kV or generator greater than 50 MW) that may collectively cause or contribute to an SOL or IROL violation or a regional operating area limitation, to their RELIABILITY AUTHORITY, or to neighboring BALANCING AUTHORITIES and TRANSMISSION OPERATORS. The RELIABILITY AUTHORITY shall establish the outage reporting requirements.	Compliance Template P4T4	Drafting Team assumes the time requirement is based on noon prevailing time of the RELIABILITY AUTHORITY, although it is not clear from Policy 4. Policy 9 states specific times for the Eastern and Western Interconnections. The Drafting Team recommends using the Policy 9 time requirements.
	R2 RELIABILITY AUTHORITIES, TRANSMISSION OPERATORS, BALANCING AUTHORITIES, AND GENERATOR OPERATORS shall plan and coordinate scheduled outages of system voltage regulating equipment, such as automatic voltage regulators on generators, supplementary excitation control, synchronous condensers, shunt and series capacitors, reactors, etc., among affected RELIABILITY AUTHORITIES, BALANCING AUTHORITIES, and TRANSMISSION OPERATORS as required.	Policy 4C Requirement 1.	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	R3 RELIABILITY AUTHORITIES, TRANSMISSION OPERATORS, BALANCING AUTHORITIES, and GENERATOR OPERATORS shall plan and coordinate scheduled outages of telemetering and control equipment and associated communication channels between the affected areas.	Policy 4C Requirement 3.	
	R4 The RELIABILITY AUTHORITY shall resolve any scheduling of potential reliability conflicts.	Compliance Template P4T4	
Measures	Monitored entity shall report and coordinate scheduled generator and/or bulk transmission outages to its RELIABILITY AUTHORITY and others indicated in the requirements above.	Compliance Template P4T4	
Regional Differences	None Identified.		
Compliance Monitoring Process	Periodic Review: The Regional Reliability Councils shall conduct a review every three years to ensure that each Operating Authority has a process in place to provide planned generator and/or bulk transmission outage information to their Reliability Coordinator, and with neighboring Control Areas. Investigation: At the discretion of the RRC or NERC, an investigation may be initiated to review the planned outage process of monitored entity due to a complaint of non-compliance by another entity. Notification of an investigation must be made by the RRC to the entity being investigated as soon as possible, but no later than 60 days after the event. The form and manner of the investigation will be set by NERC and/or the RRC. A RELIABILITY AUTHORITY makes a request for an outage to "not be taken" because of a reliability impact on the grid and the outage is still taken. The RELIABILITY AUTHORITY must provide all its documentation within 3 business days to the region. Each Region shall report compliance and violations to NERC via the NERC Compliance Reporting process. Reset Period: One Calendar year without a violation from the time of the violation Supporting Notes:	Compliance Template P4T4	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	The operating records of the responsible entity for a period of at least one month, (from a three month rolling window), shall be inspected in the field audit to verify that scheduled generator and transmission outages have been planned and coordinated among affected entities. These records are subject to correlation and confirmation with adjacent entities. Each neighboring responsible entity shall develop and share a list of critical facilities that it will receive notification of future and actual outages.		
Levels of Non Compliance	Level 1 — The responsible entity has a process in place to provide information to their RELIABILITY AUTHORITY but does not have a process in place (where permitted by legal agreements) to provide this information to the neighboring BALANCING AREAS. Level 2 — N/A Level 3 — N/A Level 4 — There is no process in place to exchange outage information, or the responsible entity does not follow the directives of the RELIABILITY AUTHORITY to cancel or reschedule an outage.	Compliance Template P4T4	

Draft Version 0 Standard		Policy Reference	
Standard	017	Policy 4 — System Coordination Section B. System Protection Coordination	
Title	System Protection Coordination		
Purpose	To ensure system protection is coordinated.		
Effective Date	February 8, 2005		
Applicability	1. RELIABILITY AUTHORITIES 2. BALANCING AUTHORITIES 3. TRANSMISSION OPERATORS 4. GENERATOR OPERATORS		
Requirements	R1 RELIABILITY AUTHORITIES, TRANSMISSION OPERATORS, BALANCING AUTHORITIES, and GENERATOR OPERATORS shall be familiar with the purpose and limitations of protection system schemes applied in their area.	Policy 4D Requirement 1.	
	R2 If a protective relay or equipment failure reduces system reliability, the TRANSMISSION OPERATOR or GENERATOR OPERATOR shall notify the affected RELIABILITY AUTHORITIES, TRANSMISSION OPERATORS, and BALANCING AUTHORITIES, and shall take corrective action as soon as possible.	Policy 4D Requirement 2	
	R3 TRANSMISSION OPERATORS and GENERATOR OPERATORS shall coordinate all new protective systems and all protective system changes with affected RELIABILITY AUTHORITIES, TRANSMISSION OPERATORS, and BALANCING AUTHORITIES.	Policy 4D Requirement 3.	
	R4 TRANSMISSION OPERATORS shall coordinate protection systems on major transmission lines and interconnections with affected GENERATOR OPERATORS, RELIABILITY AUTHORITIES, TRANSMISSION OPERATORS, and BALANCING AUTHORITIES.	Policy 4D Requirement 4.	
	R5 Each TRANSMISSION OPERATOR and GENERATOR OPERATOR shall notify its RELIABILITY AUTHORITY and neighboring TRANSMISSION OPERATORS and BALANCING AUTHORITIES in advance of changes in generating sources, transmission, load, or operating conditions, which could require changes in their protection systems.	Policy 4D Requirement 5.	Additional work is required to clarify the reporting hierarchy. The Drafting Team does not believe the Generator Operator would report directly to the Reliability Authority, but would report through the Transmission Operator or Balancing Authority. This hierarchy question affects a number of

Draft Version 0 Standard		Policy Reference	
			requirements in several standards.
	R6 Each TRANSMISSION OPERATOR and BALANCING AUTHORITY shall monitor the status of each SPECIAL PROTECTION SYSTEM in their area, and shall notify all affected RELIABILITY AUTHORITIES, TRANSMISSION OPERATORS, and BALANCING AUTHORITIES of each change in status.	Policy 4D Requirement 5.1	
Measures	Not Specified.		
Regional Differences	Not Identified.		
Compliance Monitoring Process	Not Specified.		
Levels of Non Compliance	Not Specified.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	018	Operating Policy 5 Section A	
Title	Reliability Responsibilities and Authorities		
Purpose	The integrity and reliability of the BULK ELECTRIC SYSTEM shall take precedence above all other aspects including commercial operations; therefore, all reliability entities are required to cooperate and take appropriate action to mitigate the severity or extent of any system emergency. The focus of policy 5 is on recognizing and responding to emergencies.		
Effective Date	February 8, 2005		
Applicability	1. RELIABILITY AUTHORITIES 2. BALANCING AUTHORITIES 3. TRANSMISSION OPERATORS 4. GENERATOR OPERATORS 5. DISTRIBUTION PROVIDERS 6. LOAD SERVING ENTITIES		This standard is a clear example of the question of intent of the operating policies – do the requirements address generator, distribution provider, and LSE requirements, or are those addressed through service agreements for the purpose of Version 0 standards?
Requirements	R1 The RELIABILITY AUTHORITY, BALANCING AUTHORITY, and TRANSMISSION OPERATOR shall have the responsibility and clear decision-making authority to take whatever actions are needed to ensure the reliability of its respective area and shall exercise specific authority to alleviate operating emergencies.	Policy 5A Requirement 2	
	R2 The RELIABILITY AUTHORITY, BALANCING AUTHORITY, and TRANSMISSION OPERATOR shall take immediate actions to alleviate operating emergencies including curtailing transmission service or energy schedules, operating equipment (e.g., generators, phase shifters, breakers), shedding firm load, etc.		
	R3 The BALANCING AUTHORITY, TRANSMISSION OPERATOR, AND GENERATOR OPERATOR shall comply with RELIABILITY AUTHORITY directives, and the GENERATOR OPERATOR shall comply with TRANSMISSION OPERATOR reliability directives, unless such actions would violate safety, equipment, regulatory or statutory requirements. Under these circumstances the BALANCING AUTHORITY, TRANSMISSION OPERATOR , OR GENERATOR OPERATOR shall immediately inform the RELIABILITY AUTHORITY, or TRANSMISSION OPERATOR, of the inability to perform the directive	Policy 5A Requirement 2.2	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	so that the RELIABILITY AUTHORITY or TRANSMISSION OPERATOR can implement alternate remedial actions. The DISTRIBUTION PROVIDER and LOAD SERVING ENTITY shall comply with all reliability directives issued by the TRANSMISSION OPERATOR, including shedding firm load, unless such actions would violate safety, equipment, regulatory or statutory requirements. Under these circumstances the DISTRIBUTION PROVIDER or LOAD SERVING ENTITY shall immediately inform the TRANSMISSION OPERATOR of the inability to perform the directive so that the TRANSMISSION OPERATOR can implement alternate remedial actions.	Policy 5A Requirement 2.2.1	Note the reason for separating this item is to highlight the inclusion of DP and LSE in the interpretation of Operating Authorities for the purpose of directing emergency actions.
	R4 The RELIABILITY AUTHORITY, BALANCING AUTHORITY, and TRANSMISSION OPERATOR shall inform other potentially affected RELIABILITY AUTHORITIES, BALANCING AUTHORITIES, and TRANSMISSION OPERATORS of real time or anticipated emergency conditions, and take actions to avoid when possible, or mitigate the emergency.	Policy 5A Requirement 4	
	R5 The RELIABILITY AUTHORITY, BALANCING AUTHORITY, and TRANSMISSION OPERATOR shall render all available emergency assistance requested, provided that the requesting entity has implemented its comparable emergency procedures, unless such actions would violate safety, equipment, or regulatory or statutory requirements. The DISTRIBUTION PROVIDER and LOAD SERVING ENTITY shall assist the requesting entity, unless such actions would violate safety, equipment, regulatory or statutory requirements.	Policy 5A Requirement 5 Policy 5A Requirement 5.1	
	R6 The TRANSMISSION OPERATOR AND GENERATOR OPERATOR shall not remove BULK ELECTRIC SYSTEM facilities from service if removing those facilities would BURDEN neighboring systems unless: • For a generator, the GENERATOR OPERATOR first notifies and coordinates with the BALANCING AUTHORITY. The BALANCING AUTHORITY shall notify the Reliability Authority, Transmission Operator, and affected Balancing Authorities, and coordinate the impact resulting from the removal of the BULK ELECTRIC SYSTEM facility. • For a transmission facility, the TRANSMISSION OPERATOR first notifies and coordinates with the RELIABILITY AUTHORITY and	Policy 5A Requirement 6 Policy 5A Requirement 6.1 Policy 5A Requirement 6.2	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	the TRANSMISSION OPERATOR notifies other affected TRANSMISSION OPERATORS and coordinates the impact resulting from the removal of the BULK ELECTRIC SYSTEM facility. • When time does not permit such notification and coordination, or when immediate action is required to prevent a hazard to the public, lengthy customer service interruption, or damage to facilities, the RELIABILITY AUTHORITY or TRANSMISSION OPERATOR shall notify adjacent RELIABILITY AUTHORITIES at the earliest possible time to ensure coordination.		
	R7 The BALANCING AUTHORITY and TRANSMISSION OPERATOR shall immediately take action to restore the real and reactive power balance. If the BALANCING AUTHORITY or TRANSMISSION OPERATOR is unable to restore its real and reactive power balance it shall request emergency assistance from the RELIABILITY AUTHORITY. If corrective action or emergency assistance is not adequate to mitigate the real and reactive power balance, then the RELIABILITY AUTHORITY, BALANCING AUTHORITY and TRANSMISSION OPERATOR shall implement firm load shedding.	Policy 5A Requirement 11	
Measures	Not Specified		
Regional Differences	None Identified		
Compliance Monitoring Process	Not Specified		
Levels of Non Compliance	Not Specified		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	019	Operating Policy 5B	
Title	Communications and Coordination		
Purpose	To ensure RELIABILITY AUTHORITIES, BALANCING AUTHORITIES, TRANSMISSION OPERATORS, and GENERATOR OPERATORS have adequate communications and that these communications capabilities are staffed and available for addressing a real-time emergency condition.		
Effective Date	February 8, 2005		
Applicability	1. RELIABILITY AUTHORITIES 2. BALANCING AUTHORITIES 3. TRANSMISSION OPERATORS 4. GENERATOR OPERATORS		
Requirements	R1 The BALANCING AUTHORITY, TRANSMISSION OPERATOR, and GENERATOR OPERATOR shall have communications (voice and data links) with appropriate RELIABILITY AUTHORITIES, BALANCING AUTHORITIES, and TRANSMISSION OPERATORS. Such communications shall be staffed and available for addressing a real-time emergency condition.	Policy 5B	This is another example of the question whether the operating policy intends under Operating Authority to require a Generator Operator to have communications equipment? This requirement is related to Operating Policy 7A.
	R2 The BALANCING AUTHORITY and TRANSMISSION OPERATOR shall notify its RELIABILITY AUTHORITY and all other potentially affected BALANCING AUTHORITIES and TRANSMISSION OPERATORS through predetermined communication paths of any condition that could threaten the reliability of its area.	Policy 5B	
	R4 - The RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY shall issue directives in a clear, concise, and definitive manner; shall ensure the recipient of the directive repeats the information back correctly; and shall acknowledge the response as correct or repeat the original statement to resolve any misunderstandings.	Policy 5B	
Measures	Not Specified.		
Regional Differences	None Identified.		
Compliance Monitoring Process	Not Specified.		
Levels of Non	Not Specified.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Compliance			

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	O20		
Title	Emergency Operations/Implementation of Capacity and Energy Emergency plans and coordination with other systems	Operating Policy 5 Section C	
Purpose	To ensure Balancing Authorities and Transmission Operators are prepared for capacity and energy emergencies.		This standard is closely related to the energy emergency standards in Operating Policy 9. Policy 5 is focused on Operating Authorities and Policy 9 addresses Reliability Coordinator requirements. The Drafting Team believes there is an opportunity for consolidation of these requirements in Version 0.
Effective Date	February 8, 2005		
Applicability	1. BALANCING AUTHORITIES 2. TRANSMISSION OPERATORS		
Requirements	R1 The BALANCING AUTHORITY and TRANSMISSION OPERATOR shall implement their Capacity and Energy Emergency plans, when required and as appropriate, to reduce risks to the interconnected system.	Compliance Template P5T1	
	R2 The BALANCING AUTHORITY and TRANSMISSION OPERATOR shall communicate their current and future system conditions to neighboring BALANCING AUTHORITY and TRANSMISSION OPERATORS and their RELIABILITY COORDINATOR if they are experiencing an operating emergency.	Compliance Template P5T1	
	R3 A deficient BALANCING AUTHORITY shall only use the assistance provided by the INTERCONNECTION's frequency bias for the time needed to implement corrective actions. If the BALANCING AUTHORITY cannot comply with the Control Performance and Disturbance Control Standards, then it shall immediately implement remedies to do so. These remedies include, but are not limited to: • Requesting assistance from other BALANCING AUTHORITIES; • Declaring an Energy Emergency through its RELIABILITY AUTHORITY; and • Reducing load, through procedures such as public appeals, voltage reductions, curtailing interruptible loads and firm		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	loads.		
	R4 A BALANCING AUTHORITY anticipating an operating capacity or energy emergency shall perform all actions necessary including bringing on all available generation, postponing equipment maintenance, scheduling interchange purchases in advance, and being prepared to reduce firm load.		
	R5 Once the BALANCING AUTHORITY has exhausted the following steps: • All available generating capacity is loaded; and • All operating reserve is utilized; and • All interruptible load and interruptible exports have been interrupted; and • All emergency assistance from other BALANCING AUTHORITIES is fully utilized; and • Its ACE is negative and cannot be returned to zero in the next fifteen minutes; Then the deficient BALANCING AUTHORITY shall: • Manually shed firm load without delay to return its' ACE to zero; and • The deficient BALANCING AUTHORITY shall request the Reliability Authority to declare an Emergency Energy Alert in accordance with Attach 5C (was 9B).		
Requirements	R6 The RELIABILITY AUTHORITY that is experiencing a potential or actual Energy Emergency within any BALANCING AUTHORITY Area within its RELIABILITY AUTHORITY AREA shall initiate an Energy Emergency Alert as detailed in Attachment 1 "Energy Emergency Alert Levels." The RELIABILITY AUTHORITY shall act to mitigate the emergency condition, including a request for emergency assistance if required.	Policy 9F Requirement 7. Compliance Template P5T1	
Measures	M1 At the discretion of the Regional Reliability Council or NERC, an investigation may be initiated to review the operation of a Balancing Authority or Transmission Operator when they have implemented their Capacity and Energy Emergency plans. Notification of an investigation must be made by the Regional Reliability Council to the BALANCING AUTHORITY OR TRANSMISSION OPERATOR being investigated as soon as possible, but no later than 60 days after the event. The BALANCING AUTHORITY and TRANSMISSION OPERATOR will be reviewed to	Compliance Template P5T1	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	determine if their Capacity and Energy Emergency Plans were appropriately (for a particular situation, not all of the steps may be effective or required) followed. M2 Evidence will be gathered to determine the level of communication between the BALANCING AUTHORITY and TRANSMISSION OPERATOR and other BALANCING AUTHORITIES and TRANSMISSION OPERATORS. An assessment will be made by the investigator(s) as to whether the level and timing of communication of system conditions and actions taken to relieve emergency conditions was acceptable and in conformance with the Capacity and Energy Emergency Plans. Reset period: One Calendar year without a violation from the time of the violation. Data Retention: The Balancing Authority and Transmission Operator is required to maintain operational data, logs and voice recordings relevant to the implementation of the Capacity and Energy Emergency Plans for 60 days following the implementation. After an investigation is completed, the Regional Reliability Council is required to keep the report of the investigation on file for two years.		
Regional Differences	Not Identified.		
Levels of Non Compliance	Level 1 — N/A Level 2 — N/A Level 3 — One or more of the actions of the Capacity and Energy Emergency Plans were not implemented resulting in a prolonged abnormal system condition. Level 4 — One or more of the actions of the Capacity and Energy Emergency Plans were not implemented resulting in a prolonged abnormal system condition and there was a delay or gap in communications.		

Attachment 1 Energy Emergency Alerts

Introduction

This Appendix provides the procedures by which a Load-Serving Entity can obtain capacity and energy when it has exhausted all other options and can no longer provide its customers' expected energy requirements. NERC defines this situation as an "Energy Emergency." NERC assumes that a capacity deficiency will manifest itself as an energy emergency.

The Energy Emergency Alert Procedure is initiated by the LSE's RELIABILITY AUTHORITY, who declares various Energy Emergency Alert levels as defined in Section B, "Energy Emergency Alert Levels" to provide assistance to the LSE.

The LSE who requests this assistance is referred to as an "Energy Deficient Entity."

1. NERC recognizes that Transmission Providers are subject to obligations under FERC-approved tariffs and other agreements, and nothing in these procedures should be interpreted as changing those obligations.

A. General Requirements

1. Initiated only by Reliability Authority. An Energy Emergency Alert may be initiated only by a RELIABILITY AUTHORITY at 1) the RELIABILITY COORDINATOR'S own request, or 2) upon the request of a BALANCING AUTHORITY, or 3) upon the request of a LOAD SERVING ENTITY. The cost of available resources shall not be a consideration for initiating an alert.

This will go into the NEASB document

1.1. Situations for initiating Alert. An Energy Emergency Alert may be initiated for the fol reasons:

- When the LSE is, or expects to be, unable to provide its customers' energy requirem has been unsuccessful in locating other systems with available resources from which purchase, or
- The LSE cannot schedule the resources due to, for example, ATC limitations or transmission loading relief limitations.

2. Notification. A RELIABILITY AUTHORITY who declares an Energy Emergency Alert shall notify all BALANCING AUTHORIZES and TRANSMISSION PROVIDERS in his RELIABILITY AREA. The RELIABILITY AUTHORITY shall also notify all other RELIABILITY AUTHORITIES of the situation via the Reliability Authority Information System (RCIS). Additionally, conference calls between RELIABILITY AUTHORITIES shall be held as necessary to communicate system conditions. The RELIABILITY AUTHORITY shall also notify the other RELIABILITY AUTHORITIES when the Alert has ended.

2. B. Energy Emergency Alert Levels

Introduction

To ensure that all RELIABILITY AUTHORITIES clearly understand potential and actual energy emergencies in the INTERCONNECTION, NERC has established three levels of Energy Emergency Alerts. The RELIABILITY AUTHORITIES will use these terms when explaining energy emergencies to each other. An Energy Emergency Alert is an emergency procedure, not a daily operating practice, and is not intended as an alternative to compliance with NERC Operating Policies or power supply contracts.

The RELIABILITY AUTHORITY may declare whatever Alert level is necessary, and need not proceed through the alerts sequentially.

1. Alert 1 – All available resources in use.

Circumstances:

- BALANCING AUTHORITY, RESERVE SHARING GROUP, or LOAD SERVING ENTITY foresees or is experiencing conditions where all available resources are committed to meet firm load, firm transactions, and reserve commitments, and is concerned about sustaining its required OPERATING RESERVES, and

- Non-firm wholesale energy sales (other than those that are recallable to meet reserve requirements) have been curtailed

2. Alert 2 – Load management procedures in effect.

Circumstances:

- BALANCING AUTHORITY, RESERVE SHARING GROUP, or LOAD SERVING ENTITY is no longer able to provide its customers' expected energy requirements, and is designated an ENERGY DEFICIENT ENTITY.
- ENERGY DEFICIENT ENTITY foresees or has implemented procedures up to, but excluding, interruption of firm load commitments. When time permits, these procedures may include, but are not limited to:
    - Public appeals to reduce demand
    - Voltage reduction
    - Interruption of non-firm end use loads in accordance with applicable contracts[1]
    - Demand-side management
    - Utility load conservation measures

  During Alert 2, RELIABILITY AUTHORITIES, BALANCING AUTHORITY, and ENERGY DEFICIENT ENTITIES have the following responsibilities:

  2.1 Notifying other Balancing Authorities and Market Participants. The ENERGY DEFICIENT ENTITY shall communicate its needs to other BALANCING AUTHORITIES and market participants. Upon request from the ENERGY DEFICIENT ENTITY, the respective RELIABILITY AUTHORITY shall post the declaration of the Alert level along with the name of the ENERGY DEFICIENT ENTITY and, if applicable, its BALANCING AUTHORITY on the NERC Web site

  2.2 Declaration Period. The ENERGY DEFICIENT ENTITY shall update its RELIABILITY AUTHORITY of the situation at a minimum of every hour until the Alert 2 is terminated. The RELIABILITY AUTHORITY shall update the energy deficiency information posted on the NERC web site as changes occur and pass this information on to the affected RELIABILITY AUTHORITIES, BALANCING AUTHORITY, and Transmission Providers**.**

  2.3 Sharing information on resource availability. BALANCING AUTHORITY and market participants with available resources shall immediately contact the ENERGY DEFICIENT ENTITY. This should include the possibility of selling non-firm (recallable) energy out of available operating reserves. The ENERGY DEFICIENT ENTITY shall notify the RELIABILITY AUTHORITIES of the results.

---

[1] For emergency, not economic, reasons.

2.4 **Evaluating and mitigating transmission limitations**. The RELIABILITY AUTHORITIES shall review all OPERATING SECURITY LIMITS and transmission loading relief procedures in effect that may limit the ENERGY DEFICIENT ENTITY'S scheduling capabilities. Where appropriate, the RELIABILITY AUTHORITIES shall inform the Transmission Providers under their purview of the pending ENERGY EMERGENCY and request that they increase their Available Transfer Capability (ATC) by actions such as restoring transmission elements that are out of service, reconfiguring their transmission system, adjusting phase angle regulator tap positions, implementing emergency operating procedures, and reviewing generation redispatch options.

2.4.1 **Notification of ATC adjustments**. Resulting increases in ATCs shall be simultaneously communicated to the ENERGY DEFICIENT ENTITY and the market via posting on the appropriate OASIS sites by the Transmission Providers.

2.4.2 **Availability of generation redispatch options**. Available generation redispatch options shall be immediately communicated to the ENERGY DEFICIENT ENTITY by its RELIABILITY AUTHORITY.

2.4.3 **Evaluating impact of current transmission loading relief events.** The RELIABILITY AUTHORITIES shall evaluate the impact of any current transmission loading relief events on the ability to supply emergency assistance to the ENERGY DEFICIENT ENTITY. This evaluation shall include analysis of system security and involve close communication among RELIABILITY AUTHORITIES and the ENERGY DEFICIENT ENTITY.

2.4.4 **Initiating inquiries on reevaluating OPERATING SECURITY LIMITS**. The RELIABILITY AUTHORITIES shall consult with the BALANCING AUTHORITIES and Transmission Providers in their RELIABILITY AREAS about the possibility of reevaluating and revising OPERATING SECURITY LIMITS.

2.5 **Coordination of emergency responses.** The RELIABILITY AUTHORITY shall communicate and coordinate the implementation of emergency operating responses.

2.6 **ENERGY DEFICIENT ENTITY actions.** Before declaring an Alert 3, the ENERGY DEFICIENT ENTITY must make use of all available resources. This includes but is not limited to:

2.6.1 **All available generation units are on line**. All generation capable of being on line in the time frame of the emergency is on line including quick-start and peaking units, regardless of cost.

2.6.2 **Purchases made regardless of cost**. All firm and non-firm purchases have been made, regardless of cost.

2.6.3 **Non-firm sales recalled and contractually interruptible loads and DSM curtailed**. All non-firm sales have been recalled, contractually interruptible retail loads curtailed, and Demand-side Management activated within provisions of the agreements.

2.6.4 **Operating Reserves.** Operating reserves are being utilized such that the ENERGY DEFICIENT ENTITY is carrying reserves below the required minimum or has initiated emergency assistance through its operating reserve sharing program.

3. Alert 3 – Firm load interruption imminent or in progress.

Circumstances:

- BALANCING AUTHORITY or LOAD SERVING ENTITY foresees or has implemented firm load obligation interruption. The available energy to the ENERGY DEFICIENT ENTITY, as determined from Alert 2, is only accessible with actions taken to increase transmission transfer capabilities.

3.1 Continue actions from Alert 2. The RELIABILITY AUTHORITIES, and the ENERGY DEFICIENT ENTITY, shall continue to take all actions initiated during Alert 2. If the emergency has not already been posted on the NERC web site (see paragraph 2.1), the respective RELIABILITY AUTHORITIES will, at this time, post on the web site information concerning the emergency.

3.2 Declaration Period. The ENERGY DEFICIENT ENTITY shall update its RELIABILITY AUTHORITY of the situation at a minimum of every hour until the Alert 3 is terminated. The RELIABILITY AUTHORITY shall update the energy deficiency information posted on the NERC web site as changes occur and pass this information on to the affected RELIABILITY AUTHORITIES (via the RCIS), BALANCING AUTHORITIES, and Transmission Providers.

3.3 Use of Transmission short-time limits. The RELIABILITY AUTHORITIES shall request the appropriate Transmission Providers within their RELIABILITY AREA to utilize available short-time transmission limits or other emergency operating procedures in order to increase transfer capabilities into the ENERGY DEFICIENT ENTITY.

3.4 Reevaluating and revising OPERATING SECURITY LIMITS. The RELIABILITY AUTHORITY of the ENERGY DEFICIENT ENTITY shall evaluate the risks of revising OPERATING SECURITY LIMITS on the reliability of the overall transmission system. Reevaluation of OPERATING SECURITY LIMITS shall be coordinated with other RELIABILITY AUTHORITIES and only with the agreement of the BALANCING AUTHORITY or Transmission Provider whose equipment would be affected. The resulting increases in transfer capabilities shall only be made available to the ENERGY DEFICIENT ENTITY who has declared an Energy Emergency Alert 3 condition. OPERATING SECURITY LIMITS shall only be revised as long as an Alert 3 condition exists or as allowed by the BALANCING AUTHORITY or Transmission Provider whose equipment is at risk. The following are minimum requirements that must be met before OPERATING SECURITY LIMITS are revised:

3.4.1 ENERGY DEFICIENT ENTITY obligations. The deficient BALANCING AUTHORITY or LOAD SERVING ENTITY must agree that, upon notification from its RELIABILITY AUTHORITY of the situation, it will immediately take whatever actions are necessary to mitigate any undue risk to the INTERCONNECTION. These actions may include load shedding.

3.4.2 Mitigation of cascading failures. The RELIABILITY AUTHORITY shall use his best efforts to ensure that revising OPERATING SECURITY LIMITS would not result in any cascading failures within the INTERCONNECTION.

3.5 Returning to pre-emergency OPERATING SECURITY LIMITS. Whenever energy is made available to an ENERGY DEFICIENT ENTITY such that the transmission systems can be returned to their pre-emergency OPERATING SECURITY LIMITS, the ENERGY DEFICIENT ENTITY shall notify its respective RELIABILITY AUTHORITY and downgrade the Alert.

3.5.1 Notification of other parties. Upon notification from the ENERGY DEFICIENT ENTITY that an Alert has been downgraded, the RELIABILITY AUTHORITY shall notify the affected RELIABILITY AUTHORITIES (via the RCIS), BALANCING AUTHORITIES, and Transmission

Providers that their systems can be returned to their normal OPERATING SECURITY LIMITS.

3.6 Reporting. Any time an Alert 3 is declared, the ENERGY DEFICIENT ENTITY shall complete the report listed in appendix 9B, Section C and submit this report to its respective RELIABILITY AUTHORITY within two business days of downgrading or termination of the Alert. Upon receiving the report, the RELIABILITY AUTHORITY shall review it for completeness and immediately forward it to the NERC staff for posting on the NERC web site. The RELIABILITY AUTHORITY shall present this report to the Reliability Authority Working Group at its next scheduled meeting.

4. Alert 0 - Termination. When the ENERGY DEFICIENT ENTITY believes it will be able to supply its customers' energy requirements, it shall request of his RELIABILITY AUTHORITY that the EEA be terminated.

4.1. Notification. The RELIABILITY AUTHORITY shall notify all other RELIABILITY AUTHORITIES via the RCIS of the termination. The RELIABILITY AUTHORITY shall also notify the affected BALANCING AUTHORITIES and TRANSMISSION PROVIDERS. The Alert 0 shall also be posted on the NERC web site if the original Alert was so posted.

3. C. Energy Emergency Alert 3 Report

NERC Policy 9B section B paragraph 3.5 requires that a Deficient Balancing Authority or Load Serving Entity declaring an Energy Emergency Alert 3 must complete the following report. Upon completion of this report it is to be sent to the RELIABILITY AUTHORITY for review within two business days of the incident.

Requesting Balancing Authority:

Entity experiencing energy deficiency (if different from Balancing Authority):

Date/Time Implemented:

Date/Time Released:

Declared Deficiency Amount (MW):

Total Energy supplied by other Balancing Authority During the Alert 3 period:

Conditions that precipitated call for "Energy Deficiency Alert 3":

If "Energy Deficiency Alert 3" had not been called, would firm load be cut? if no, explain:

Explain what action was taken in each step to avoid calling for "Energy Deficiency Alert 3":

1. **All generation capable of being on line in the time frame of the energy deficiency was on line (including quick start and peaking units) without regard to cost.**

2. **All firm and nonfirm purchases were made regardless of cost.**

3. **All nonfirm sales were recalled within provisions of the sale agreement.**

4. **Interruptible load was curtailed where either advance notice restrictions were met or the interruptible load was considered part of spinning reserve.**

5. **Available load reduction programs were exercised (public appeals, voltage reductions, etc.).**

6. **Operating Reserves being utilized.**

Comments:

Reported By: **Organization:**

Title:

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	021	Operating Policy 5D	
Title	Emergency Operations/Transmission		
Purpose	To ensure BALANCING AUTHORITIES AND TRANSMISSION OPERATORS take actions to mitigate SOL and IROL violations.		
Effective Date	February 8, 2005		
Applicability	1. BALANCING AUTHORITIES 2. TRANSMISSION OPERATORS		
Requirements	R1 The BALANCING AUTHORITY and TRANSMISSION OPERATOR experiencing or contributing to an SOL or IROL violation shall take immediate steps to relieve the condition, which may include firm load shedding.		
	R2 The BALANCING AUTHORITY and TRANSMISSION OPERATOR shall ensure they operate to prevent the likelihood that a disturbance, action, or non-action will result in a SOL or IROL violation in its area or another area of the Interconnection. In instances where there is a difference in derived operating limits, the BALANCING AUTHORITY and TRANSMISSION OPERATOR shall always operate the BULK ELECTRIC SYSTEM to the most limiting parameter.		
	R3 The BALANCING AUTHORITY and TRANSMISSION OPERATOR shall disconnect the affected facility if the overload on a transmission facility or abnormal voltage or reactive condition persists and equipment is endangered. In doing so, the BALANCING AUTHORITY or TRANSMISSION OPERATOR shall notify its RELIABILITY AUTHORITY and all neighboring BALANCING AUTHORITIES and TRANSMISSION OPERATORS impacted by the disconnection prior to switching, if time permits, otherwise, immediately thereafter.		
	R4 The TRANSMISSION OPERATOR shall have sufficient information and analysis tools to determine the cause(s) of SOL violations. This analysis shall be conducted in all operating timeframes. The TRANSMISSION OPERATOR shall use the results of these analyses to immediately mitigate the SOL violation.		
Measures	Not Specified.		
Regional Differences	Not Identified.		
Compliance Monitoring	Not Specified.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Process			
Levels of Non Compliance	Not Specified.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	022	Operating Policy 5F	
Title	Disturbance Reporting		
Purpose	Disturbances or unusual occurrences that jeopardize the operation of the BULK ELECTRIC SYSTEM, and result, or could result, in system equipment damage, or customer interruptions, shall be studied in sufficient depth to increase industry knowledge of electrical interconnection mechanics to minimize the likelihood of similar events in the future. It is important that the facts surrounding a disturbance shall be made available to RELIABILITY AUTHORITIES, TRANSMISSION OPERATORS, Regional Councils, NERC, and regulatory agencies entitled to the information.		
Effective Date	February 8, 2005		
Applicability	1. Reliability Authorities 2. Balancing Authorities 3. Transmission Operators 4. Regional Councils		
Requirements	R1 Each Regional Council shall establish and maintain a Regional reporting procedure to facilitate preparation of preliminary and final disturbance reports.		
	R2 Affected RELIABILITY AUTHORITIES, BALANCING AUTHORITIES, and TRANSMISSION OPERATORS shall promptly analyze BULK ELECTRIC SYSTEM disturbances.		
	R3 RELIABILITY AUTHORITIES, BALANCING AUTHORITIES, and TRANSMISSION OPERATORS responsible for investigating an incident shall provide a preliminary written report to their Regional Council and NERC. The affected RELIABILITY AUTHORITIES, BALANCING AUTHORITIES, and TRANSMISSION OPERATORS shall submit within 24 hours of the disturbance or unusual occurrence either a copy of the report submitted to DOE, or, if no DOE report is required, a copy of the NERC Interconnected Reliability Operating Limit and Preliminary Disturbance Report form. Events that are not identified until some time after they occur shall be reported within 24 hours of being recognized. Under certain adverse conditions, e.g. severe weather, it may not be possible to assess the damage caused by a disturbance and issue a written Interconnected Reliability Operating Limit and Preliminary Disturbance Report within 24 hours. In such cases, the affected RELIABILITY AUTHORITY, BALANCING AUTHORITY, or TRANSMISSION OPERATOR shall notify its Regional		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	Council(s) and NERC promptly and verbally provide as much information as is available at that time. The affected RELIABILITY AUTHORITIES, BALANCING AUTHORITIES, and TRANSMISSION OPERATORS shall then provide timely, periodic verbal updates until adequate information is available to issue a written Preliminary Disturbance Report. If in the judgment of the Regional Council, after consultation with the RELIABILITY AUTHORITIES, BALANCING AUTHORITIES, and TRANSMISSION OPERATORS in which a disturbance occurred, a final report is required, the affected RELIABILITY AUTHORITIES, BALANCING AUTHORITIES, and TRANSMISSION OPERATORS shall prepare this report within 60 days. As a minimum, the final report shall have a discussion of the events and its cause, the conclusions reached, and recommendations to prevent recurrence of this type of event. The report shall be subject to Regional Council approval.		
	R4 When a BULK ELECTRIC SYSTEM disturbance occurs, the Regional Council's OC and DAWG representatives shall make themselves available to the RELIABILITY AUTHORITIES, BALANCING AUTHORITIES, and TRANSMISSION OPERATORS immediately affected to provide any needed assistance in the investigation and to assist in the preparation of a final report.		
	R5 The Regional Council shall track and review the status of all final report recommendations at least twice each year to ensure they are being acted upon in a timely manner. If any recommendation has not been acted on within two years, or if Regional Council tracking and review indicates at any time that any recommendation is not being acted on with sufficient diligence, the Regional Council shall notify the NERC Planning Committee and Operating Committee of the status of the recommendation(s) and the steps the Regional Council has taken to accelerate implementation.		
Measures	Not Specified.		
Regional Differences	None Identified.		
Compliance Monitoring Process	Not Specified.		
Levels of Non Compliance	Not Specified.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	023		
Title	Sabotage Reporting	Operating Policy 5G	
Purpose	Disturbances or unusual occurrences, suspected or determined to be caused by sabotage, shall be reported to the appropriate systems, governmental agencies, and regulatory bodies.		
Effective Date	February 8, 2005		
Applicability	1. RELIABILITY AUTHORITIES 2. BALANCING AUTHORITIES 3. TRANSMISSION OPERATORS 4. GENERATOR OPERATORS		
Requirements	R1 Each Reliability Authority, Balancing Authority, Transmission Operator, and Generator Operator shall have procedures for making operating personnel aware and for notifying others regarding sabotage events on its facilities and multi-site sabotage affecting larger portions of the Interconnection.		
	R2 Each Reliability Authority, Balancing Authority, Transmission Operator, and Generator Operator shall provide its operating personnel with sabotage response guidelines, including personnel to contact, for reporting disturbances due to sabotage events.		
	R3 Each Reliability Authority, Balancing Authority, Transmission Operator, and Generator Operator shall establish communications contacts, as applicable, with local Federal Bureau of Investigation (FBI) or Royal Canadian Mounted Police (RCMP) officials and develop reporting procedures as appropriate to their circumstances.		
Measures	Not Specified.		
Regional Differences	None Identified.		
Compliance Monitoring Process	Not Specified.		
Levels of Non Compliance	Not Specified.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	024	Policy 6 –Operations Planning Standard Version 0, Draft 1 Normal Operations	
Title	Normal Operations Planning	Operating Policy 6 "Operations Planning" Section A "Normal Operations"	
Purpose	To define the requirement that each RELIABILITY AUTHORITY, BALANCING AUTHORITY, TRANSMISSION OPERATOR AND GENERATOR OPERATOR is to maintain a set of current plans that are designed to evaluate options and set procedures for reliable operation through a reasonable future time period.		
Effective Date	February 8, 2005		
Applicability	1. RELIABILITY AUTHORITY, 2. BALANCING AUTHORITY, 3. TRANSMISSION OPERATOR 4. GENERATION OPERATOR 5. LOAD SERVING ENTITY 6. TRANSMISSION SERVICE PROVIDER		
Requirements	R1 Each RELIABILITY AUTHORITY, BALANCING AUTHORITY, TRANSMISSION OPERATOR AND GENERATOR OPERATOR shall maintain a set of current plans that are designed to evaluate options and set procedures for reliable operation through a reasonable future time period. In addition, each RELIABILITY AUTHORITY, BALANCING AUTHORITY, TRANSMISSION OPERATOR AND GENERATOR OPERATOR shall be responsible for using available personnel and system equipment to implement these plans to ensure that interconnected systems reliability will be maintained.	Policy 6 Introduction	
	R2 Each RELIABILITY AUTHORITY, BALANCING AUTHORITY, TRANSMISSION OPERATOR AND GENERATOR OPERATOR shall ensure its operating personnel participate in the system planning and design study processes, so that these studies contain the operating personnel perspective and system operating personnel are	Policy 6 Introduction	

Proposed Draft Version 0 Standard Language			Existing Document References	Comments
		aware of the planning purpose.		
	R3	Each RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY shall plan its current-day, next-day, and seasonal operations in coordination (where confidentiality agreements allow) with neighboring RELIABILITY AUTHORITIES, TRANSMISSION OPERATORS, and BALANCING AUTHORITIES so that normal INTERCONNECTION operation will proceed in an orderly and consistent manner.	Policy 6A Requirement 1	
	R4	Each LOAD SERVING ENTITY, TRANSMISSION SERVICE PROVIDER, and GENERATOR OPERATOR shall coordinate (where confidentiality agreements allow) its current-day, next-day, and seasonal operations with its host BALANCING AUTHORITY. Each BALANCING AUTHORITY and TRANSMISSION SERVICE PROVIDER shall coordinate its current-day, next-day, and seasonal operations with its TRANSMISSION OPERATOR.	Policy 6A Requirement 1.1	
	R5	Each BALANCING AUTHORITY and TRANSMISSION OPERATOR shall coordinate (where confidentiality agreements allow) its current-day, next-day, and seasonal operations with neighboring BALANCING AUTHORITIES and TRANSMISSION OPERATORS and with its RELIABILITY AUTHORITY.	Policy 6A Requirement 1 1.2	
	R6	Each Reliability Authority, Balancing Authority, Transmission Operator shall plan to meet scheduled system configuration, generation dispatch, interchange scheduling and demand patterns.	Policy 6A Requirement 2 2.1	
	R7	Each RELIABILITY AUTHORITY, BALANCING AUTHORITY, and TRANSMISSION OPERATOR shall plan to meet unscheduled changes in system configuration and generation dispatch (at a minimum N-1 Contingency planning) in accordance with NERC, Regional, and local reliability requirements.	Policy 6A Requirement 2 2.2	
	R8	Each RELIABILITY AUTHORITY and BALANCING AUTHORITY shall plan to meet capacity and energy reserve requirements, including the deliverability/capability for any single contingency.	Policy 6A Requirement 2 2.3	
	R9	Each RELIABILITY AUTHORITY, BALANCING AUTHORITY, and TRANSMISSION OPERATOR shall plan to respect voltage and/or reactive limits, including the deliverability/capability for any single contingency.	Policy 6A Requirement 2 2.4	
	R10	Each BALANCING AUTHORITY shall plan to meet Interchange Schedules. All GENERATOR OPERATORS shall operate their plant(s) so as to adhere to ramp schedules.	Policy 6A Requirement 2 2.5	The Drafting Team questions the meaning of this requirement and whether it is necessary or

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
			enforceable.
	R11 Each RELIABILITY AUTHORITY, BALANCING AUTHORITY, and TRANSMISSION OPERATOR shall plan to respect all System Operating Limits (SOLs).	Policy 6A Requirement 2 2.6	
	R12 The RELIABILITY AUTHORITY and TRANSMISSION OPERATOR shall perform seasonal, next-day, and current-day BULK ELECTRIC SYSTEM studies to determine SYSTEM OPERATING LIMITS. Neighboring RELIABILITY AUTHORITIES and TRANSMISSION OPERATORS shall utilize identical SYSTEM OPERATING LIMITS for common facilities. The RELIABILITY AUTHORITY and TRANSMISSION OPERATOR shall update these BULK ELECTRIC SYSTEM studies as necessary to reflect current system conditions; and shall make the results of BULK ELECTRIC SYSTEM studies available to the TRANSMISSION OPERATORS, BALANCING AUTHORITIES (subject confidentiality requirements), AND to its RELIABILITY AUTHORITY.	Policy 6A Requirement 3.	
	R13 The TRANSMISSION SERVICE PROVIDER shall include known SOLs or IROLs within its area and neighboring areas in the determination of transfer capabilities, in accordance with filed tariffs and/or regional TTC/ATC calculation processes.	Policy 6A Requirement 4.	
	R14 At the request of the RELIABILITY AUTHORITY, BALANCING AUTHORITY, or TRANSMISSION OPERATOR, a GENERATOR OPERATOR shall perform generating real or reactive capability verification that shall include, among other variables, weather, ambient air and water conditions, and fuel quality and quantity, and provide the results to the RELIABILITY AUTHORITY, BALANCING AUTHORITY, or TRANSMISSION OPERATOR operating personnel as requested.	Policy 6A Requirement 5.	
	R15 GENERATOR OPERATORS shall, without any intentional time delay, notify their BALANCING AUTHORITY AND TRANSMISSION OPERATOR of changes in capabilities and characteristics including but not limited to: • Changes in real and reactive output capabilities, • Automatic Voltage Regulator status and mode setting	Policy 6A Requirement 6.1 Policy 6A Requirement 6.1.1 Policy 6A Requirement 6.1.2	This may be redundant with a similar requirement in Standard 009
	R16 GENERATION OPERATORS shall, at the BALANCING AUTHORITY'S OR TRANSMISSION OPERATOR'S request, provide a forecast of expected real power output to assist in operations planning (e.g. a	Policy 6A Requirement 6.2	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	seven-day forecast of real output).		
	R17 TRANSMISSION OPERATORS shall, without any intentional time delay, notify their RELIABILITY AUTHORITY and BALANCING AUTHORITY of changes in capabilities and characteristics including but not limited to: • Changes in transmission facility status • Changes in transmission facility rating	Policy 6A Requirement 6.3	
	R18 BALANCING AUTHORITIES and TRANSMISSION OPERATORS shall, without any intentional time delay, communicate the information described in the requirements 1-17 above to their RELIABILITY AUTHORITY.		It may be more appropriate to add this requirement to each applicable requirement above.
	R19 Neighboring RELIABILITY AUTHORITIES, BALANCING AUTHORITIES, TRANSMISSION OPERATORS, GENERATOR OPERATORS, TRANSMISSION SERVICE PROVIDERS AND LOAD SERVING ENTITIES shall use uniform line identifiers when referring to transmission facilities of an interconnected network.	Policy 6A Requirement 6.5	
	R20 The RELIABILITY AUTHORITY, BALANCING AUTHORITY and TRANSMISSION OPERATOR shall maintain accurate computer models utilized for analyzing and planning system operations.	Policy 6A Requirement 6.6	
Measures	Not Specified.		
Regional Differences	None Identified.		
Compliance Monitoring Process	Not Specified.		
Levels of Non Compliance	Not Specified.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	025	Policy 6 – Operations Planning Section B – Emergency Operations Compliance Template P6T1	
Title	Emergency Operations Planning		
Purpose	Each RELIABILITY AUTHORITY, TRANSMISSION OPERATOR AND BALANCING AUTHORITY needs to develop, maintain, and implement a set of plans consistent with NERC Operating Policies to mitigate operating emergencies. These plans need to be coordinated with other RELIABILITY AUTHORITIES, TRANSMISSION OPERATORS and BALANCING AUTHORITIES as appropriate.	P6 B Introduction	
Effective Date	February 8, 2005		
Applicability	1. RELIABILITY AUTHORITY, 2. BALANCING AUTHORITY, 3. TRANSMISSION OPERATOR		
Requirements	R1 BALANCING AUTHORITIES shall have operating agreements with adjacent BALANCING AUTHORITIES that shall, at a minimum, contain provisions for emergency assistance, including provisions to obtain emergency assistance from remote BALANCING AUTHORITIES.		
	R2 The RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, AND BALANCING AUTHORITY shall be staffed with adequately trained operating personnel. Training for operating personnel shall meet or exceed a minimum of 5 days per year of training and drills using realistic simulations of system emergencies, in addition to other training required to maintain qualified operating personnel.	Policy 6B Requirement 2.	
	R3 The RELIABILITY AUTHORITY and TRANSMISSION OPERATOR shall have an emergency load reduction plan for all identified IROLs. The plan shall include the details on how the RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, AND BALANCING AUTHORITY will implement load reduction in sufficient amount and time to mitigate the IROL violation before system separation or collapse would occur. The load reduction plan must be capable of being implemented within 30 minutes.	Policy 6B Requirement 3.	
	R4 Each RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, AND	Policy 6B	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	BALANCING AUTHORITY shall: • Develop, maintain, and implement a set of plans to mitigate operating emergencies for insufficient generating capacity. • Develop, maintain, and implement a set of plans to mitigate operating emergencies on the transmission system. • Develop, maintain, and implement a set of plans to mitigate operating emergencies for load shedding. • Develop, maintain, and implement a set of plans to mitigate operating emergencies for System Restoration.	Requirement 4. Policy 6B Requirement 4.1 Policy 6B Requirement 4.2 Policy 6B Requirement 4.3 Policy 6B Requirement 4.4	
	R5 Each RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, AND BALANCING AUTHORITY shall have emergency plans that will enable it to mitigate operating emergencies. At a minimum, RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, AND BALANCING AUTHORITY emergency plans shall include: • Communications protocols to be used during emergencies. • List of controlling actions to resolve the emergency. Load reduction, in sufficient quantity to resolve the emergency within NERC established timelines, shall be one of the controlling actions. • The tasks to be coordinated with and among adjacent RELIABILITY AUTHORITIES, TRANSMISSION OPERATORS, AND BALANCING AUTHORITIES. • Staffing levels for the emergency.	Policy 6B Requirement 5. Policy 6B Requirement 5.1 Policy 6B Requirement 5.2 Policy 6B Requirement 5.3 Policy 6B Requirement 5.4	The Drafting Team asks whether the list of "must" statements describing the emergency plans in Compliance Template P6T1 should be included here. Those items are listed in Policy 6B as guides, but then shown as requirements in the Compliance Template. The list of potential requirements is attached below.
	R6 The RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, AND BALANCING AUTHORITY shall annually review and update each emergency plan. The TRANSMISSION OPERATOR AND BALANCING AUTHORITY shall provide a copy of its updated emergency plans to its RELIABILITY AUTHORITY and to neighboring TRANSMISSION OPERATORS AND BALANCING AUTHORITIES. The RELIABILITY AUTHORITY shall provide a copy of its updated emergency plans to its neighboring RELIABILITY AUTHORITIES.	Policy 6B Requirement 6.	
	R7 The RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, AND BALANCING AUTHORITY shall coordinate its emergency plans with other RELIABILITY AUTHORITIES, TRANSMISSION OPERATORS, AND BALANCING AUTHORITIES as appropriate. This coordination includes the following steps, as applicable: • Establish and maintain reliable communications between	Policy 6B Requirement 7. Policy 6B	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	interconnected systems. • Arrange new interchange agreements to provide for emergency capacity or energy transfers if existing agreements cannot be used. • Coordinate transmission and generator maintenance schedules to maximize capacity or conserve the fuel in short supply. (This includes water for hydro generators.) • Arrange deliveries of electrical energy or fuel from remote systems through normal operating channels.	Requirement 7.1 Policy 6B Requirement 7.2 Policy 6B Requirement 7.3 Policy 6B Requirement 7.4	
Measures	Not Specified.		
Regional Differences	None Identified.		
Compliance Monitoring Process	Not Specified.		
Levels of Non Compliance	Not Specified.		

Potential additional elements of Requirement R5:

1. **Fuel supply and inventory.** An adequate fuel supply and inventory plan which recognizes reasonable delays or problems in the delivery or production of fuel.
2. **Fuel switching.** Fuel switching plans for units for which fuel supply shortages may occur, e.g., gas and light oil.
3. **Environmental constraints.** Plans to seek removal of environmental constraints for generating units and plants.
4. **System energy use.** The reduction of the system's own energy use to a minimum.
5. **Public appeals.** Appeals to the public through all media for voluntary load reductions and energy conservation including educational messages on how to accomplish such load reduction and conservation.
6. **Load management.** Implementation of load management and voltage reductions, if appropriate.
7. **Optimize fuel supply.** The operation of all generating sources to optimize the availability.
8. **Appeals to customers to use alternate fuels.** In a fuel emergency, appeals to large industrial and commercial customers to reduce non-essential energy use and maximize the use of customer-owned generation that rely on fuels other than the one in short supply.
9. **Interruptible and curtailable loads.** Use of interruptible and curtailable customer load to reduce capacity requirements or to conserve the fuel in short supply.

10. **Maximizing generator output and availability.** The operation of all generating sources to maximize output and availability. This should include plans to winterize units and plants during extreme cold weather.

11. **Notifying IPPs.** Notification of cogeneration and independent power producers to maximize output and availability.

12. **Requests of government.** Requests to appropriate government agencies to implement programs to achieve necessary energy reductions.

13. **Load curtailment.** A mandatory load curtailment plan to use as a last resort. This plan should address the needs of critical loads essential to the health, safety, and welfare of the community. Address firm load curtailment.

14. **Notification of government agencies.** Notification of appropriate government agencies as the various steps of the emergency plan are implemented.

15. **Utilization of Energy Emergency Alert procedures as specified in Appendix 5C.**

16. **Generation redispatch options.**

17. **Transmission reconfiguration options.**

18. **Utilization of Special Protection Schemes.**

19. **Local or INTERCONNECTION-wide transmission loading relief procedures.**

20. **Reserve sharing.**

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	026	Policy 6 – Operations Planning Section C – Load Shedding	
Title	Load Shedding Plans		
Purpose	After taking all other remedial steps, a RELIABILITY AUTHORITY, BALANCING AUTHORITY and TRANSMISSION OPERATOR operating with insufficient generation or transmission capacity shall shed customer load rather than risk an uncontrolled failure of components or cascading outages of the INTERCONNECTION."	Policy 6C Introduction	The Drafting Team believes that this standard confuses the distinction between planning and implementing load shedding. Policy 6 addresses operational plans and the other sections focus on planning requirements. However, Policy 6C includes both the planning and implementation of load shedding. Should the implementation requirements be moved to other standards focused on emergency operations?
Effective Date	February 8, 2005		
Applicability	1. RELIABILITY AUTHORITY 2. TRANSMISSION OPERATOR 3. BALANCING AUTHORITY		
Requirements	R1 After taking all other remedial steps, a RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, or BALANCING AUTHORITY operating with insufficient generation or transmission capacity shall shed customer load rather than risk an uncontrolled failure of components or cascading outages of the INTERCONNECTION.	Policy 6C Introduction	Is this requirement in the 6C intro redundant with a prior requirement?
	R2 Each TRANSMISSION OPERATOR and BALANCING AUTHORITY shall establish plans for automatic load shedding.	Policy 6C Requirement 1.	
	R3 Each TRANSMISSION OPERATOR and BALANCING AUTHORITY shall coordinate load shedding plans among other interconnected TRANSMISSION OPERATOR and BALANCING AUTHORITY AREAS.	Policy 6C Requirement 1.1	
	R4 A TRANSMISSION OPERATOR or BALANCING AUTHORITY shall initiate automatic load shedding at the time one of the following has reached an agreed-to level: frequency, rate of frequency decay,	Policy 6C Requirement 1.2.1	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	voltage level, rate of voltage decay, or power flow levels.		
	R5 A TRANSMISSION OPERATOR or BALANCING AUTHORITY shall implement load shedding in steps established to minimize the risk of further uncontrolled separation, loss of generation, or system shutdown.	Policy 6C Requirement 1.2.2	
	R6 After a TRANSMISSION OPERATOR or BALANCING AUTHORITY AREA separates from the Interconnection, if there is insufficient generating capacity to restore system frequency following automatic underfrequency load shedding, the TRANSMISSION OPERATOR or BALANCING AUTHORITY shall shed additional load.	Policy 6C Requirement 1.2.3	
	R7 The TRANSMISSION OPERATOR or BALANCING AUTHORITY shall coordinate automatic load shedding throughout their TRANSMISSION OPERATOR or BALANCING AUTHORITY AREAS with underfrequency isolation of generating units, tripping of shunt capacitors, and other automatic actions that will occur under abnormal frequency, voltage, or power flow conditions.	Policy 6C Requirement 1.2.4	
	R8 Each TRANSMISSION OPERATOR or BALANCING AUTHORITY shall have plans for operator-controlled manual load shedding to respond to real-time emergencies. The TRANSMISSION OPERATOR or BALANCING AUTHORITY shall be capable of implementing the load shedding in a timeframe adequate for responding to the emergency.	Policy 6C Requirement 2.	
Measures	Not Specified.		
Regional Differences	None Identified.		
Compliance Monitoring Process	Not Specified.		
Levels of Non Compliance	Not Specified.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	027	Policy 6 – Operations Planning Section D – System Restoration Plans P6T2 Compliance Template Reference Document — Electric System Restoration	
Title	System Restoration Plans		
Purpose	To ensure each reliability entity develops and annually reviews its plan to reestablish its electric system in a stable and orderly manner in the event of a partial or total shut down of the system.		
Effective Date	February 8, 2005		
Applicability	1. RELIABILITY AUTHORITY 2. TRANSMISSION OPERATOR 3. BALANCING AUTHORITY		
Requirements	R1 Each RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY shall have and periodically update a logical plan to reestablish its electric system in a stable and orderly manner in the event of a partial or total shutdown of its system. This plan shall be coordinated with other RELIABILITY AUTHORITIES, TRANSMISSION OPERATORS, and BALANCING AUTHORITIES in the INTERCONNECTION to ensure a consistent INTERCONNECTION restoration plan.		
	R2 Each RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY shall have a restoration plan to reestablish its electric system in a stable and orderly manner in the event of a partial or total shutdown of its system, including necessary operating instructions and procedures to cover emergency conditions, and the loss of vital telecommunications channels.	Policy 6D Requirement 1.	
	R3 The RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY shall review and update its restoration plan at least annually, and whenever it makes changes in the power system network, and to correct deficiencies found during the	Policy 6D Requirement 1.1	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	simulated restoration exercises.		
	R4 The RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY shall develop restoration plans with the intent of restoring the integrity of the Interconnection.	Policy 6D Requirement 1.2	The Drafting Team believes this requirement should be clarified to indicate the restoration plan should have as a priority restoring the integrity of the Interconnection.
	R5 The RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY shall coordinate its restoration plans with neighboring RELIABILITY AUTHORITIES, TRANSMISSION OPERATORS, and BALANCING AUTHORITIES.	Policy 6D Requirement 1.3	
	R6 The RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY shall periodically test its telecommunication facilities needed to implement the restoration plan.	Policy 6D Requirement 1.4	
	R7 The RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY shall train its operating personnel in the implementation of the restoration plan. Such training shall include simulated exercises, if practicable.	Policy 6D Requirement 2.	
	R8 The RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY shall verify its restoration procedures by actual testing or by simulation.	Policy 6D Requirement 3	
	R9 The RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY shall ensure the availability and location of black start capability within its respective RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, or BALANCING AUTHORITY AREA to meet the needs of the restoration plan.	Policy 6D Requirement 4	
Regional Differences	None Identified.		
Compliance Monitoring Process	Periodic Review: Included as part of the on-site operational review every three years. Self-Assessment: Annual report to the Regional Reliability Council of plan review and/or updates. Reset Period: One calendar year. Data Retention: The OPERATING AUTHORITY must have its plan to reestablish its electric system available for a review by the Regional	Compliance Template P6T2	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	Reliability Council at all times.		
Levels of Non Compliance	Level 1 — Plan exists but is not reviewed annually. Level 2 — Plan exists but does not address one of the nine requirements. Level 3 — N/A Level 4 — Plan exists but does not address two or more of the nine requirements or there is no Restoration Plan in place.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	voltage level, rate of voltage decay, or power flow levels.		
	R5 A TRANSMISSION OPERATOR or BALANCING AUTHORITY shall implement load shedding in steps established to minimize the risk of further uncontrolled separation, loss of generation, or system shutdown.	Policy 6C Requirement 1.2.2	
	R6 After a TRANSMISSION OPERATOR or BALANCING AUTHORITY AREA separates from the Interconnection, if there is insufficient generating capacity to restore system frequency following automatic underfrequency load shedding, the TRANSMISSION OPERATOR or BALANCING AUTHORITY shall shed additional load.	Policy 6C Requirement 1.2.3	
	R7 The TRANSMISSION OPERATOR or BALANCING AUTHORITY shall coordinate automatic load shedding throughout their TRANSMISSION OPERATOR or BALANCING AUTHORITY AREAS with underfrequency isolation of generating units, tripping of shunt capacitors, and other automatic actions that will occur under abnormal frequency, voltage, or power flow conditions.	Policy 6C Requirement 1.2.4	
	R8 Each TRANSMISSION OPERATOR or BALANCING AUTHORITY shall have plans for operator-controlled manual load shedding to respond to real-time emergencies. The TRANSMISSION OPERATOR or BALANCING AUTHORITY shall be capable of implementing the load shedding in a timeframe adequate for responding to the emergency.	Policy 6C Requirement 2.	
Measures	Not Specified.		
Regional Differences	None Identified.		
Compliance Monitoring Process	Not Specified.		
Levels of Non Compliance	Not Specified.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
ID Number	028	Operating Policy 6 – Operations Planning Section E – Loss of Primary Control Facilities Compliance Template P6T2	
Title	Plans for Loss of Control Center Functionality		
Purpose	Each reliability entity needs to AUTHORITIES shall have a plan to continue reliability operations in the event its control center becomes inoperable.		
Effective Date	February 8, 2005		
Applicability	1. RELIABILITY AUTHORITIES 2. TRANSMISSION OPERATOR 3. BALANCING AUTHORITIES		
Requirements	R1 Each RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY shall have a plan to continue reliability operations in the event its control center becomes inoperable. The contingency plan must meet the following requirements: • The contingency plan shall not rely on data or voice communication from the primary control facility to be viable. • The plan shall include procedures and responsibilities for providing basic tie line control and procedures and responsibilities for maintaining the status of all inter area schedules such that there is an hourly accounting of all schedules. • The contingency plan must address monitoring and control of critical transmission facilities, generation control, voltage control, time and frequency control, control of critical substation devices, and logging of significant power system events. The plan shall list the critical facilities. • The plan shall include procedures and responsibilities for maintaining basic voice communication capabilities with other AREAS. • The plan shall include procedures and responsibilities for conducting periodic tests, at least annually, to ensure viability of	Compliance Template P6T2	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	the plan. • The plan shall include procedures and responsibilities for providing annual training to ensure that operating personnel are able to implement the contingency plans. • The plan shall be reviewed and updated annually. • The functions to be coordinated with and among neighboring AREAS. (The plan should include references to coordination of actions among neighboring AREAS when the plans are implemented.) • Notification shall be made to other operating entities as the steps of the restoration plan are implemented. • Interim provisions must be included if it is expected to take in excess of one hour to implement the loss of primary control facility contingency plan.		
Measures	Evidence that the RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, or BALANCING AUTHORITY has developed and documented a current contingency plan to continue the monitoring and operation of the electrical equipment under its control to maintain BULK ELECTRICAL SYSTEM reliability if their primary control facility becomes inoperable.	Compliance Template P6T2	
Regional Differences	None Identified.		
Compliance Monitoring Process	Periodic Review: Review and evaluate the loss of primary control facility contingency plan as part of the three-year on-site audit process. The audit must include a demonstration of the plan by the RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY. Self-Certification: Each RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY shall annually, self-certify to the Regional Reliability Organization that the following criteria have been met: 1. The necessary operating instructions and procedures for restoring loads, including identification of critical load requirements. 2. A set of procedures for annual review and updated for simulating and, where practical, actual testing and verification of the plan resources and procedures (*at least every three years*). 3. Documentation must be retained in the personnel training records that operating personnel have been trained annually in the implementation of the plan and have participated in restoration	Compliance Template P6T2	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	exercises. Reset Period: One calendar year. Data Retention: The contingency plan for loss of primary control facility must be available for review at all times.		
Levels of Non Compliance	Level 1 — Plan exists but is not reviewed annually. Level 2 — Plan exists but does not address one of the 10 requirements. Level 3 — N/A Level 4 — Plan exists but does not address two or more of the nine requirements or there is no Restoration Plan in place.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
ID Number	029	Policy 7 – Telecommunications Geomagnetic Disturbance Reference Document	
Title	Telecommunications		
Purpose	Each RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, AND BALANCING AUTHORITY must have adequate and reliable telecommunications facilities internally and with others for the exchange of INTERCONNECTION and operating information necessary to maintain reliability.	Policy 7	
Effective Date	February 8, 2005		
Applicability	1. RELIABILITY AUTHORITIES 2. TRANSMISSION OPERATORS 3. BALANCING AUTHORITIES		
Requirements	R1 Each RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY shall provide adequate and reliable telecommunications facilities internally and with other RELIABILITY AUTHORITIES, TRANSMISSION OPERATORS, and BALANCING AUTHORITIES for the exchange of INTERCONNECTION and operating information necessary to maintain reliability. Where applicable, these facilities shall be redundant and diversely routed.	Policy 7A Requirement 1.	There may be redundancy here with Policy 5A Requirement 1.
	R2 Each RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY shall manage, alarm, test and/or actively monitor vital telecommunications facilities. Special attention shall be given to emergency telecommunications facilities and equipment not used for routine communications.	Policy 7A Requirement 3.	
	R3 Each RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY shall provide a means to coordinate telecommunications among their respective AREAS. This coordination shall include the ability to investigate and recommend solutions to telecommunications problems within the region and with other regions.	Policy 7B Requirement 1.	
	R4 Unless agreed to otherwise, each RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY shall use English as the language for all communications between and	Policy 7B Requirement 2.	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	among operating personnel responsible for the real-time generation control and operation of the interconnected BULK ELECTRIC SYSTEM. RELIABILITY AUTHORITIES, TRANSMISSION OPERATORS, and BALANCING AUTHORITIES may use an alternate language for internal operations.		
	R5 Each RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY shall have written operating instructions and procedures to enable continued operation of the system during loss of telecommunications facilities.		
	R6 Each NERCNet User Organization shall adhere to the requirements in Attachment 1, "NERCNet Security Policy".		Need to add a definition of a NERCNet User Organization to the Standards Glossary.
Measures	Not Specified.		
Regional Differences	None Identified.		
Compliance Monitoring Process	Not Specified.		
Levels of Non Compliance	Not Specified.		

Attachment 1 – NERCnet Security Policy

Policy Statement

The purpose of this NERCnet Security Policy is to establish responsibilities and minimum requirements for the protection of information assets, computer systems and facilities of NERC and other users of the NERC frame relay network known as "NERCnet." The goal of this policy is to prevent misuse and loss of assets.

For the purpose of this document, information assets shall be defined as processed or unprocessed data using the NERCnet Telecommunications Facilities including network documentation. This policy shall also apply as appropriate to employees and agents of other corporations or organizations that may be directly or indirectly granted access to information associated with NERCnet.

The objectives of the NERCnet Security Policy are:

- To ensure that NERCnet information assets are adequately protected on a cost-effective basis and to a level that allows NERC to fulfill its mission.
- Establish connectivity guidelines to establish a minimum level of security for the network.
- To provide a mandate to all Users of NERCnet to properly handle and protect the information that they have access to in order for NERC to be able to properly conduct its business and provide services to its customers.

NERC's Security Mission Statement

NERC recognizes its dependency on data, information, and the computer systems used to facilitate effective operation of its business and fulfillment of its mission. NERC also recognizes the value of the information maintained and provided to its members and others authorized to have access to NERCnet. It is, therefore, essential that this data, information, and computer systems, and the manual and technical infrastructure that supports it, is secure from destruction, corruption, unauthorized access, and accidental or deliberate breach of confidentiality.

Implementation and Responsibilities

This section identifies the various roles and responsibilities related to the protection of NERCnet resources.

NERCnet User Organizations

Users of NERCnet who have received authorization from NERC to access the NERC network are considered users of NERCnet resources. To be granted access, users shall complete a User Application Form and submit this form to the NERC Telecommunications Manager.

It is the responsibility of NERCnet User Organizations to:

- Use NERCnet facilities for NERC authorized business purposes only.
- Comply with the NERCnet Security policies, standards and guidelines as well as any procedures specified by the data owner.
- Prevent unauthorized disclosure of the data.
- Report security exposures, misuse or non-compliance situations via RAIS or the NERC Telecommunications Manager.
- Protect the confidentiality of all user IDs and passwords.
- Maintain the data they own.
- Maintain documentation identifying the users who are granted access to NERCnet data or applications.
- Authorize users within their organizations to access NERCnet data and applications.
- Advise staff on NERCnet Security Policy.

- Ensure that all NERCnet users understand their obligation to protect these assets.
- Conduct self-assessments for compliance.

User Accountability and Compliance

All users of NERCnet shall be familiar and ensure compliance with the policies in this document.

Violations of the NERCnet Security Policy shall include, but not be limited to any act that:

- Exposes NERC or any user of NERCnet to actual or potential monetary loss through the compromise of data security or damage.
- Involves the disclosure of trade secrets, intellectual property, confidential information or the unauthorized use of data.
- Involves the use of data for illicit purposes, which may include violation of any law, regulation or reporting requirement of any law enforcement or government body.

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	030	Operating Policy 8 – Operating Personnel and Training Section A – Responsibility and Authority Compliance Template P8T1	
Title	Operating Personnel Responsibility and Authority		
Purpose	RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY operating personnel need to have the responsibility and authority to implement real-time actions that ensure the stable and reliable operation of the BULK ELECTRIC SYSTEM.	Policy 8A	
Effective Date	February 8, 2005		
Applicability	1. RELIABILITY AUTHORITIES 2. TRANSMISSION OPERATORS 3. BALANCING AUTHORITIES		
Requirements	R1 RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY operating personnel shall have the responsibility and authority to implement real-time actions to ensure the stable and reliable operation of the BULK ELECTRIC SYSTEM.	Compliance Template P8T1	
Measures	M1 Evidence that the RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY operating personnel responsibility and authority to implement real-time actions that ensure the stable and reliable operation of the BULK ELECTRIC SYSTEM are documented and understood. Documentation shall include: 1. A written current job description exists which states in clear and unambiguous language the responsibilities and authorities of each operating position of a RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, AND BALANCING AUTHORITY. The position description identifies personnel subject to the authority of the RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, AND BALANCING AUTHORITY. 2. Written current job description states operating personnel are responsible for complying with the NERC Operating Policies.	Compliance Template P8T1	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	3. Written current job description is readily accessible in the control room environment to all operating personnel. 4. Written operating procedures state that during emergency conditions operating personnel have the authority to take or direct timely and appropriate real-time actions, up to and including shedding of firm load to prevent or alleviate System Operating Limit violations. These actions are performed without obtaining approval from higher-level personnel within the RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, or BALANCING AUTHORITY.		
Regional Differences	None Identified.		
Compliance Monitoring Process	Periodic Review: An on-site review including interviews with RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY operating personnel and documentation verification will be conducted every three years. The job description that identifies the operating personnel authorities and responsibilities will be reviewed, as will the written operating procedures or other documents delineating the authority of the operating personnel to take actions necessary to maintain the reliability of the BULK ELECTRIC SYSTEM during normal and emergency conditions. Self-certification: The RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY shall annually complete a self-certification form developed by the RRC based on requirements 1–4 in the Measure M1. Reset Period: One calendar year. Data Retention: Permanent.	Compliance Template P8T1	
Levels of Non Compliance	Level 1 — The RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, or BALANCING AUTHORITY has written documentation that includes three of the four items in M1. Level 2 — The RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, or BALANCING AUTHORITY has written documentation that includes two of the four items in M1. Level 3 — The Operating Authority has written documentation that includes one of the four items in M1. Level 4 — The Operating Authority has written documentation that	Compliance Template P8T1	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	includes none of the items in M1, or the interview verification items 1 and 2 do not support the authority of the RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	031	Policy 8 – Operating Personnel and Training Section B - Training	
Title	Operating Personnel Training		
Purpose	Each RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY needs to provide their personnel with a coordinated training program that will ensure reliable system operation.		
Effective Date	February 8, 2005		
Applicability	1. Reliability Authority 2. Balancing Authority 3. Transmission Operator		
Requirements	R1 A RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY shall have a training program for operating personnel that meets the following criteria: 1. A set of training program objectives must be defined, based on NERC and Regional Reliability Organization standards, entity operating procedures, and applicable regulatory requirements. These objectives shall reference the knowledge and competencies needed to apply those policies, procedures, and requirements to normal, emergency, and restoration conditions for the RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY operating positions. 2. The training program must include a plan for the initial and continuing training of RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY operating personnel that addresses required knowledge and competencies and their application in system operations. 3. The training program must include training time for all RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY operating staff to ensure their operating proficiency. 4. Trainers must be identified, and they must be individuals competent in both knowledge of system operations and instructional capabilities. 5. The training program must include elements of Attachment 1 that apply to each specific RELIABILITY AUTHORITY,	Policy 8B	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	TRANSMISSION OPERATOR, and BALANCING AUTHORITY operating position.		
	R2 Each RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY shall have at least five days per year of operating personnel training and drills in system emergencies, using realistic simulations.		
Measures	M1 The RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY OPERATING PERSONNEL training program shall be reviewed to ensure that it is designed to promote reliable operation.		
Regional Differences	None Identified.		
Compliance Monitoring Process	Periodic Review: The Regional Reliability Organization will conduct an on-site review of the RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY operating personnel training program every three years. The operating personnel training records will be reviewed and assessed compared to the program curriculum. Self-certification: The Operating Authority will annually provide a self-certification based on the requirement 1 and 2. Reset Period: One calendar year Data Retention: Three years.		
Levels of Non Compliance	Level 1 — N/A Level 2 — The RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY operating personnel training program does not include all five criteria under Requirement 1. Level 3— All of the RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY have not completed Criterion 2 of Requirement 1. Level 4 — A RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY operating personnel training program has not been developed.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Draft Version 0 Standard			
Standard	032	Policy 8 – Operating Personnel and Training Section C. Certification	
Title	Operating Personnel Credentials		
Purpose	Certification of operating personnel is necessary to ensure minimum competencies for operating a reliable Bulk Electric System.		
Effective Date	February 8, 2004		
Applicability	1. RELIABILITY AUTHORITIES 2. TRANSMISSION OPERATORS 3. BALANCING AUTHORITIES		
Requirements	R1 Each RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY shall staff all operating positions that meet either of the following criteria with personnel that are NERC-certified for the applicable functions: 1. Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected BULK ELECTRIC SYSTEM. 2. Positions directly responsible for complying with NERC standards.	Policy 8C Requirement 1. Policy 8C Requirement 1.1 Policy 8C Requirement 1.2	
Measures	M1 The RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY shall have NERC-Certified operating personnel on shift in required positions at all times with the following exceptions: 1. While in training, an individual without the proper NERC certification credential may not independently fill a required operating position. Trainees may perform critical tasks only under the direct, continuous supervision and observation of the NERC-Certified individual filling the required position. 2. During a real-time operating emergency, the time when control is transferred from a primary control center to a backup control center shall not be included in the calculation of non-compliance. This time shall be limited to no more than four (4) hours.		
Regional	None Identified.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Differences			
Compliance Monitoring Process	Periodic Review: An on-site review will be conducted every three years. Staffing schedules and Certification numbers will be compared to ensure that positions that require NERC-Certified System Operators were covered as required. Certification numbers from the Operating Authority will be compared with NERC records. Exception Reporting: Any violation of the standard must be reported to the RRC who will inform the NERC Vice President-Compliance, indicating the reason for the non-compliance and the mitigation plans taken. Reset Period: One calendar month without a violation. Data Retention: Present calendar year plus previous calendar year staffing plan.		
Levels of Non Compliance	Level 1 — The RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY did not meet the requirement for a total time greater than 0 hours and up to 12 hours during a one calendar month period for each required position in the staffing plan. Level 2 — The RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY did not meet the requirement for a total time greater than 12 hours and up to 36 hours during a one calendar month period for each required position in the staffing plan. Level 3 — The RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY did not meet the requirement for a total time greater than 36 hours and up to 72 hours during a one-month calendar period for each required position in the staffing plan. Level 4 — The RELIABILITY AUTHORITY, TRANSMISSION OPERATOR, and BALANCING AUTHORITY did not meet the requirement for a total time greater than 72 hours during a one calendar month period for each required position in the staffing plan.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	033	Operating Policy 9 – Reliability Authority Standards Section A. Responsibilities – Authorization Compliance Template P9T3	
Title	Reliability Coordination – Responsibilities, Authorities, and Agreements		
Purpose	RELIABILITY AUTHORITIES must have the authority, plans, and agreements in place to immediately direct reliability entities within their RELIABILITY AUTHORITY AREA to re-dispatch generation, reconfigure transmission, or reduce load to mitigate critical conditions to return the system to a reliable state. If a RELIABILITY AUTHORITY delegates tasks to others, the RELIABILITY AUTHORITY retains its responsibilities for complying with NERC and regional standards. Standards of conduct are necessary to ensure the RELIABILITY AUTHORITY does not act in a manner that that favors one market participant over another.		
Effective Date	February 8, 2005		
Applicability	1. RELIABILITY AUTHORITIES		
Requirements	R1 Each Regional Reliability Organization, subregion, or interregional coordinating group shall establish one or more RELIABILITY AUTHORITIES to continuously assess transmission security and coordinate emergency operations among the operating entities within the region and across the regional boundaries.		Requirements 1 and 2 establish the foundation for reliability coordination. Standards previously assigned to Reliability Coordinators have been assigned to RELIABILITY AUTHORITIES to facilitate implementation of the Functional Model. For areas in which the current Reliability Coordinator and the RELIABILITY AUTHORITY functions are with the same entity, the translation of Operating Policy 9 to standards is straightforward. For areas that intend to assign RELIABILITY AUTHORITY functions to current Control Areas, those RELIABILITY

Proposed Draft Version 0 Standard Language			Existing Document References	Comments
				AUTHORITIES need to accept responsibility for the reliability coordination standards (33 to 41) while recognizing tasks may be assigned to others, including "upwardly" to a Reliability Coordinator. Accountability for compliance with standards, however, remains with the RELIABILITY AUTHORITY.
	R2	A RELIABILITY AUTHORITY shall have in place and comply with a reliability plan approved by the NERC Operating Committee.		
	R3	The RELIABILITY AUTHORITY shall have clear decision-making authority to act and to direct actions to be taken by BALANCING AUTHORITIES, TRANSMISSION OPERATORS, GENERATOR OPERATORS, TRANSMISSION SERVICE PROVIDERS, LOAD-SERVING ENTITIES, and PURCHASING-SELLING ENTITIES within its RELIABILITY AUTHORITY AREA to preserve the integrity and reliability of the BULK ELECTRIC SYSTEM. These actions shall be taken without delay, and no longer than 30 minutes.	Policy 9A Requirement 1.2	
	R4	RELIABILITY AUTHORITIES that delegate tasks to other entities shall have formal operating agreements with entity to which tasks are delegated. The RELIABILITY AUTHORITY shall verify that all delegated tasks are understood, communicated, and addressed within its RELIABILITY AUTHORITY AREA. All responsibilities for complying with NERC and regional standards shall remain with the RELIABILITY AUTHORITY.	Policy 9B Requirement 1	
	R5	The RELIABILITY AUTHORITY shall list within its reliability plan all entities to which RELIABILITY AUTHORITY tasks have been delegated.	Policy 9B Requirement 2	
	R6	The RELIABILITY AUTHORITY shall verify that all delegated tasks are carried out by NERC-certified RELIABILITY AUTHORITY operating personnel.	Policy 9B Requirement 3	
	R7	The RELIABILITY AUTHORITY shall have clear, comprehensive coordination agreements with adjacent RELIABILITY AUTHORITIES to ensure that SOL or IROL violation mitigation requiring actions in adjacent RELIABILITY AUTHORITY AREAS are coordinated.	Policy 9H Requirement 1	
	R8	BALANCING AUTHORITIES, TRANSMISSION OPERATORS, GENERATOR OPERATORS, TRANSMISSION SERVICE PROVIDERS,	Policy 9A Requirement 3	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	LOAD-SERVING ENTITIES, and PURCHASING-SELLING ENTITIES shall comply with RELIABILITY AUTHORITY directives unless such actions would violate safety, equipment, or regulatory or statutory requirements. Under these circumstances, the BALANCING AUTHORITY, TRANSMISSION OPERATOR, GENERATOR OPERATOR, TRANSMISSION SERVICE PROVIDER, LOAD-SERVING ENTITY, or PURCHASING-SELLING ENTITY must immediately inform the RELIABILITY AUTHORITY of the inability to perform the directive so that the RELIABILITY AUTHORITY may implement alternate remedial actions.		
	R9 The RELIABILITY AUTHORITY shall act in the interests of reliability for the overall RELIABILITY AUTHORITY AREA and its INTERCONNECTION, before the interests of any other entity.	Policy 9A Requirement 2	
Measures	M1 Documentation must clearly show that the RELIABILITY AUTHORITIES have the authority to immediately direct operating entities within their RELIABILITY AUTHORITY AREA to re-dispatch generation, reconfigure transmission, manage interchange transactions, or reduce system demand to mitigate SOL and IROL violations to return the system to a reliable state.	Compliance Template P9T3	
Regional Differences	None Identified.		
Compliance Monitoring Process	Periodic Review The Regional Reliability Organization shall review the RELIABILITY AUTHORITY documentation and the agreements with operating entities that delineate the authority of the RELIABILITY AUTHORITY to immediately direct actions of the operating entities in its RELIABILITY AUTHORITY AREA to mitigate SOL and IROL violations to return the system to a reliable state. Reset Period: One year without a violation from the time of the violation. Data Retention: Documentation must be available at all times.	Compliance Template P9T3	
Levels of Non Compliance	Level 1 — N/A Level 2 — N/A Level 3 — RELIABILITY AUTHORITY does not have documentation of agreements with all the operating entities in their RELIABILITY AUTHORITY AREA to authenticate the authority of the RELIABILITY AUTHORITY.	Compliance Template P9T3	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	Level 4 — The RELIABILITY AUTHORITY does not have the authority to direct all the operating entities in its RELIABILITY AUTHORITY AREA to take actions to mitigate SOL and IROL violations to return the system to a reliable state.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
ID Number	034	Policy 9 Section I Facilities	
Title	Reliability Coordination – Facilities		
Purpose	RELIABILITY AUTHORITIES need information, tools and other capabilities to perform their responsibilities.		Portions of this standard should be moved to Reliability Authority certification criteria in a later version of the standards.
Effective Date	February 8, 2005		
Applicability	1. RELIABILITY AUTHORITIES		
Requirements	R1 RELIABILITY AUTHORITIES shall have adequate communications (voice and data links) to appropriate entities within its RELIABILITY AUTHORITY AREA, which are staffed and available to act in addressing a real time emergency condition.	Policy 9I Requirement 1.1	This requirement could be moved to Standard 029.
	R2 The RELIABILITY AUTHORITY shall determine the data requirements to support its reliability coordination tasks and shall request such data from its BALANCING AUTHORITIES, TRANSMISSION OPERATORS, TRANSMISSION OWNERS, GENERATION OWNERS, GENERATION OPERATORS, and LOAD-SERVING ENTITIES or ADJACENT RELIABILITY AUTHORITIES.	Policy 9H Requirement 2.	Related to Standard 029.
	R3 The RELIABILITY AUTHORITY or its BALANCING AUTHORITIES and TRANSMISSION OPERATORS shall provide, or arrange provisions for, data exchange to other RELIABILITY AUTHORITIES or BALANCING AUTHORITIES AND TRANSMISSION OPERATORS via a secure network.	Policy 9H Requirement 3.	Related to Standard 029 A clearer version of this requirement may be: Upon request, RELIABILITY AUTHORITIES shall, via the ISN, exchange with each other operating data that is necessary to allow the RELIABILITY AUTHORITIES to perform their operational reliability assessments and coordinate their reliable operations. RELIABILITY AUTHORITIES shall share with each other the types of data as listed in Attachment A, unless otherwise agreed to. The Drafting Team asks: do TRANSMISSION OPERATORS and

Proposed Draft Version 0 Standard Language			Existing Document References	Comments
				BALANCING AUTHORITIES have obligations to supply RELIABILITY AUTHORITY information through the NERC SDX?
	R4	RELIABILITY AUTHORITIES shall have multi-directional communications capabilities between it and its BALANCING AUTHORITIES and TRANSMISSION OPERATORS and also between it and its neighboring RELIABILITY AUTHORITIES for both voice and data exchange, as required to meet reliability needs of the INTERCONNECTION.	Policy 9I Requirement 1.2	
	R5	RELIABILITY AUTHORITIES shall have detailed real-time monitoring capability of their RELIABILITY AUTHORITY AREA and sufficient monitoring capability of their surrounding RELIABILITY AUTHORITY AREAS to ensure that potential or actual SOL or IROL violations are identified. RELIABILITY AUTHORITIES shall have monitoring systems that provide information that can be easily understood and interpreted by the RELIABILITY AUTHORITY, giving particular emphasis to alarm management and awareness systems, automated data transfers, synchronized information systems, over a redundant and highly reliable infrastructure.	Policy 9I Requirement 1.3	
	R6	RELIABILITY AUTHORITIES shall monitor BULK ELECTRIC SYSTEM elements (generators, transmission lines, busses, transformers, breakers, etc.) that could result in SOL or IROL violations within their RELIABILITY AUTHORITY AREA. RELIABILITY AUTHORITIES shall monitor both real and reactive power system flows, and operating reserves, and the status of BULK ELECTRIC SYSTEM elements that are or could be critical to SOLs and IROLs and system restoration requirements within their RELIABILITY AUTHORITY AREA.	Policy 9I Requirement 1.3.1	
	R7	The RELIABILITY AUTHORITY shall have adequate analysis tools such as state estimation, pre- and post-contingency analysis capabilities (thermal, stability, and voltage) and wide area overview displays.	Policy 9I Requirement 1.4.1	
	R8	The RELIABILITY AUTHORITY shall continuously monitor its RELIABILITY AUTHORITY AREA. The RELIABILITY AUTHORITY shall have provisions for backup facilities that shall be exercised if the main monitoring system is unavailable. The RELIABILITY AUTHORITY shall ensure SOL and IROL monitoring and	Policy 9I Requirement 1.4.2	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	derivations continue if the main monitoring system is unavailable.		
	R9 The RELIABILITY AUTHORITY shall control RELIABILITY AUTHORITY analysis tools, including approvals for planned maintenance. The RELIABILITY AUTHORITY shall have procedures in place to mitigate the affects of analysis tool outages.	Policy 9I Requirement 1.4.3	
Measures	Not Specified.		
Regional Differences	None Identified.		
Compliance Monitoring Process	Not Specified.		
Levels of Non Compliance	Not Specified.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
ID Number	035	Operating Policy 9 – Reliability Authority Procedures Section E – Current Day Operations	
Title	Reliability Coordination – Wide Area View		
Purpose	The RELIABILITY AUTHORITY must have a wide area view of its own RELIABILITY AUTHORITY AREA and that of neighboring RELIABILITY AUTHORITIES.	Policy 9A Requirement 1.1	
Effective Date	February 8, 2005		
Applicability	1. RELIABILITY AUTHORITIES		
Requirements	R1 The RELIABILITY AUTHORITY shall monitor all BULK ELECTRIC SYSTEM facilities, including sub-transmission information, within its RELIABILITY AUTHORITY AREA and adjacent RELIABILITY AUTHORITY AREAS as necessary to ensure that, at any time, regardless of prior planned or unplanned events, the RELIABILITY AUTHORITY is able to determine any potential SOL and IROL violations within its RELIABILITY AUTHORITY AREA.	Policy 9E Requirement 1.1	
	R2 When a neighboring RELIABILITY AUTHORITY is aware of an external operational concern, such as declining voltages, excessive reactive flows, or an IROL violation, the neighboring RELIABILITY AUTHORITY shall contact the RELIABILITY AUTHORITY in whose RELIABILITY AUTHORITY AREA the operational concern was observed. The two RELIABILITY AUTHORITIES shall coordinate any actions, including emergency assistance, required to mitigate the operational concern.	Policy 9E Requirement 1.1.1	
	R3 The RELIABILITY AUTHORITY shall know the status of all current critical facilities whose failure, degradation or disconnection could result in an SOL or IROL violation. RELIABILITY AUTHORITIES shall also know the status of any facilities that may be required to assist area restoration objectives.	Policy 9E Requirement 1.2	
Measures	Not Specified.		
Regional Differences	None Identified.		
Compliance	Not Specified.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Monitoring Process			
Levels of Non Compliance	Not Specified.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
ID Number	036	Operating Policy 9 Section J – Staffing	
Title	Reliability Coordination - Staffing		
Purpose	RELIABILITY AUTHORITIES must have sufficient, competent staff to perform the RELIABILITY AUTHORITY functions		
Effective Date	February 8. 2005		
Applicability	1. RELIABILITY AUTHORITIES		
Requirements	R1 The RELIABILITY AUTHORITY shall be staffed with adequately trained and NERC-certified RELIABILITY AUTHORITY operators, 24 hours per day, seven days per week. All RELIABILITY AUTHORITY operating personnel shall complete a minimum of 5 days per year of training and drills using realistic simulations of system emergencies, in addition to other training required to maintain qualified operating personnel.	Policy 9J Requirement 1.1	
	R2 RELIABILITY AUTHORITY operating personnel shall have a comprehensive understanding of the RELIABILITY AUTHORITY AREA and interactions with neighboring RELIABILITY AUTHORITY AREAS.	Policy 9J Requirement 1.2	
	R3 RELIABILITY AUTHORITY operating personnel shall have an extensive understanding of the BALANCING AUTHORITIES, TRANSMISSION OPERATORS, and GENERATION OPERATORS within the RELIABILITY AUTHORITY AREA, including the operating staff, operating practices and procedures, restoration priorities and objectives, outage plans, equipment capabilities and restrictions of those entities.	Policy 9J Requirement 1.2	
	R4 The RELIABILITY AUTHORITY operating personnel shall place particular attention on SOLs and IROLs and intertie facility limits. The RELIABILITY AUTHORITY shall ensure protocols are in place to allow the RELIABILITY AUTHORITY'S operating personnel to have the best available information at all times.	Policy 9J Requirement 1.2	
Measures	Not Specified.		
Regional Differences	None Identified.		
Compliance Monitoring Process	Not Specified.		
Levels of Non Compliance	Not Specified.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	037	Standard based on Compliance Template P9T1 References to Policy 9 Section D are identified.	
Title	Reliability Coordination –Operations Planning		
Purpose	Each RELIABILITY AUTHORITY must conduct next-day reliability analyses for its RELIABILITY AUTHORITY AREA to ensure the BULK ELECTRIC SYSTEM can be operated reliably in anticipated normal and contingency event conditions. System studies shall be conducted to highlight potential interface and other operating limits including overloaded transmission lines and transformers, voltage and stability limits, etc., and plans developed to alleviate SOL and IROL violations.		
Effective Date	February 8, 2005		
Applicability	1. RELIABILITY AUTHORITIES 2. BALANCING AUTHORITIES 3. TRANSMISSION OPERATORS 4. TRANSMISSION SERVICE PROVIDER 5. TRANSMISSION OWNER 6. GENERATOR OWNER 7. GENERATOR OPERATOR 8. LOAD-SERVING ENTITY		
Requirements	R1 The RELIABILITY AUTHORITY shall conduct next-day reliability analyses for its RELIABILITY AUTHORITY AREA to ensure that the BULK ELECTRIC SYSTEM can be operated reliably in anticipated normal and CONTINGENCY event conditions. The RELIABILITY AUTHORITY shall conduct contingency analysis studies to identify potential interface and other SOL and IROL violations, including overloaded transmission lines and transformers, voltage and stability limits, etc.	Policy 9D Requirement 1.1	
	R2 The RELIABILITY AUTHORITY shall pay particular attention to parallel flows to ensure one RELIABILITY AUTHORITY AREA does not place an unacceptable or undue BURDEN on an adjacent RELIABILITY AUTHORITY AREA.		
	R3 The RELIABILITY AUTHORITY shall, in conjunction with its TRANSMISSION OPERATORS and BALANCING AUTHORITIES, develop action plans that may be required including reconfiguration of the transmission system, re-dispatching of generation, reduction	Compliance Template P9T1	

Proposed Draft Version 0 Standard Language			Existing Document References	Comments
		or curtailment of INTERCHANGE TRANSACTIONS, or reducing load to return transmission loading to within acceptable SOLs or IROLs.		
	R4	Each BALANCING AUTHORITY, TRANSMISSION OWNER, TRANSMISSION OPERATOR, GENERATION OWNER, GENERATION OPERATOR, and LOAD-SERVING ENTITY in the RELIABILITY AUTHORITY AREA shall provide information required for system studies, such as critical facility status, load, generation, operating reserve projections, and known INTERCHANGE TRANSACTIONS. This information shall be available by 1200 Central Standard Time for the Eastern Interconnection and 1200 Pacific Standard Time for the Western Interconnection.		
	R5	The RELIABILITY AUTHORITY shall share the results of its system studies, when conditions warrant or upon request, with other RELIABILITY AUTHORITIES, and BALANCING AUTHORITIES, TRANSMISSION OPERATORS, GENERATION OPERATORS, AND TRANSMISSION SERVICE PROVIDERS within its RELIABILITY AUTHORITY AREA. The RELIABILITY AUTHORITY shall make study results available no later than 1500 Central Standard Time for the Eastern Interconnection, and 1500 Pacific Standard Time for the Western Interconnection, unless circumstances warrant otherwise.	Policy 9D Requirement 4.	
	R6	When conditions warrant, the RELIABILITY AUTHORITY shall initiate a conference call or other appropriate communications to address the results of its reliability analyses.	Policy 9D Requirement 5.	
	R9	If the results of these studies indicate potential SOL or IROL violations, the RELIABILITY AUTHORITIES shall issue the appropriate alerts via the Reliability Authority Information System (RAIS) and direct their BALANCING AUTHORITIES, TRANSMISSION SERVICE PROVIDERS and TRANSMISSION OPERATORS to take any necessary action the RELIABILITY AUTHORITY deems appropriate to address the potential SOL or IROL violation.	Policy 9D Requirement 6.	
	R10	The BALANCING AUTHORITY, TRANSMISSION SERVICE PROVIDER and TRANSMISSION OPERATOR shall comply with the directives of its RELIABILITY AUTHORITY based on the next day assessments in the same manner in which it would comply during real time operating events.	Policy 9D Requirement 7.	
Measures	M1	Evidence that the RELIABILITY AUTHORITY conducted next-day contingency analyses for its RELIABILITY AUTHORITY AREA to ensure that the BULK ELECTRIC SYSTEM could be operated reliably in anticipated normal and contingency event conditions.	Compliance Template P9T1	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Regional Differences	None Identified.		
Compliance Monitoring Process	Periodic Review: Entities will be selected for on-site audit at least every three years. For a selected 30-day period, in the previous three calendar months prior to the on site audit, RELIABILITY AUTHORITIES will be asked to provide documentation showing that next-day security analyses were conducted each day to ensure the bulk power system could be operated in anticipated normal and contingency conditions; and that they identified potential interface and other operating limits including overloaded transmission lines and transformers, voltage and stability limits, etc. Self-Certification: Each RELIABILITY AUTHORITY must annually, self-certify compliance to its Regional Reliability Organization to the Requirements 1 and 2 of the Compliance Assessment Notes. Exception Reporting: RELIABILITY AUTHORITIES will prepare a monthly report to the Regional Reliability Organization, for each month that Requirement 1 system studies were not conducted, indicating the dates that studies were not done and the reason why. Reset Period: One year without a violation from the time of the violation. Data Retention: Documentation shall be available for 3 months that provides verification that system studies were performed as required.	Compliance Template P9T1	
Levels of Non Compliance	Level 1 — Requirement 1 system studies were not conducted for one day in a calendar month and/or the Requirement 2 action plans were not developed to maintain transmission loading within acceptable limits for potential interface and other INTERCONNECTED RELIABILITY OPERATING LIMIT violations. Level 2 — Requirement 1 system studies were not conducted for 2-3 days in a calendar month and/or the Requirement 2 action plans were not developed to maintain transmission loading within acceptable limits for potential interface and other INTERCONNECTED RELIABILITY OPERATING LIMIT violations. Level 3 — Requirement 1 system studies were not conducted for 4-5 days in a calendar month and/or the Requirement 2 action plans were not developed to maintain transmission loading within acceptable limits for potential interface and other INTERCONNECTED RELIABILITY OPERATING	Compliance Template P9T1	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	LIMIT violations. Level 4 — Requirement 1 system studies were not conducted for more than 5 days in a calendar month and/or the Requirement 2 action plans were not developed to maintain transmission loading within acceptable limits for potential interface and other INTERCONNECTED RELIABILITY OPERATING LIMIT violations.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
ID Number	038	Policy 9 Section E. Current Day Operations	
Title	Reliability Coordination – Current Day Operations		
Purpose	The RELIABILITY AUTHORITY must be continuously aware of conditions within its RELIABILITY AUTHORITY AREA and include this information in its reliability assessments. The RELIABILITY AUTHORITY must monitor BULK ELECTRIC SYSTEM parameters that may have significant impacts upon the RELIABILITY AUTHORITY AREA and with neighboring RELIABILITY AUTHORITY AREAS.		
Effective Date	February 8, 2005		
Applicability	1. RELIABILITY AUTHORITIES 2. BALANCING AUTHORITIES 3. TRANSMISSION OPERATORS 4. TRANSMISSION SERVICE PROVIDERS		
Requirements	R1 The RELIABILITY AUTHORITY shall monitor its RELIABILITY AUTHORITY AREA parameters, including but not limited to the following: • Current status of BULK ELECTRIC SYSTEM elements (transmission or generation including critical auxiliaries such as Automatic Voltage Regulators and Special Protection Systems) and system loading. • Current pre-contingency element conditions (voltage, thermal, or stability), including any applicable mitigation plans to alleviate an SOL or IROL violation including the plan's viability and scope. • Current post-contingency element conditions (voltage, thermal, or stability), including any applicable mitigation plans to alleviate an SOL or IROL including the plan's viability and scope. • System real and reactive reserves (actual versus required). • Capacity and energy adequacy conditions. • Current ACE for all its BALANCING AUTHORITIES. • Current local or transmission loading relief procedures in effect. • Planned generation dispatches. • Planned transmission or generation outages. • Contingency events.	Policy 9E Requirement 1.3 Policy 9E Requirement 1.3.1 Policy 9E Requirement 1.3.2 Policy 9E Requirement 1.3.3 Policy 9E Requirement 1.3.4 Requirement 1.3.5 Requirement 1.3.6 Requirement 1.3.7 Requirement 1.3.8 Requirement 1.3.9 Requirement 1.3.10	
	R2 The RELIABILITY AUTHORITY shall be aware of all INTERCHANGE	Policy 9E	Note: This requirement is

Proposed Draft Version 0 Standard Language			Existing Document References	Comments
		TRANSACTIONS that wheel through, source, or sink in its RELIABILITY AUTHORITY AREA and make that INTERCHANGE TRANSACTION information available to all RELIABILITY AUTHORITIES in the INTERCONNECTION.	Requirement 1.4.1	satisfied by the Interchange Distribution Calculator and E-Tag process for the Eastern Interconnection.
	R3	As portions of the transmission system approach or exceed SOLs or IROLs, the RELIABILITY AUTHORITY shall work with the TRANSMISSION OPERATORS and BALANCING AUTHORITIES to evaluate and assess any additional INTERCHANGE SCHEDULES that would violate those limits. If the potential or actual IROL violation cannot be avoided through proactive intervention, the RELIABILITY AUTHORITY shall initiate control actions or emergency procedures to relieve the violation without delay, and no longer than 30 minutes. The RELIABILITY AUTHORITY shall be able to utilize all resources, including load shedding, in addressing a potential or actual IROL violation.	Policy 9E Requirement 1.4.2	
	R4	The RELIABILITY AUTHORITY shall monitor BALANCING AUTHORITY parameters to ensure that the required amount of operating reserves is provided and available as required to meet the Control Performance Standard and Disturbance Control Standards requirements. If necessary, the RELIABILITY AUTHORITY shall direct the BALANCING AUTHORITIES in the RELIABILITY AUTHORITY AREA to arrange for assistance from neighboring BALANCING AUTHORITIES. The RELIABILITY AUTHORITY shall issue Energy Emergency Alerts, as needed, and at the request of BALANCING AUTHORITIES.	Policy 9E Requirement 1.4.3	
	R5	The RELIABILITY AUTHORITY shall identify the cause of the potential or actual SOL or IROL violations. The RELIABILITY AUTHORITY shall initiate the control action or emergency procedure to relieve the potential or actual IROL violation without delay, and no longer than 30 minutes. The RELIABILITY AUTHORITY shall be able to utilize all resources, including load shedding, in addressing an IROL violation.	Policy 9E Requirement 1.4.4	
	R6	The RELIABILITY AUTHORITY shall inform all BALANCING AUTHORITIES within its RELIABILITY AUTHORITY AREA of the start and end times for time error corrections.	Policy 9E Requirement 1.4.5	
	R7	Only the INTERCONNECTION TIME MONITOR shall be able to modify scheduled Interconnection frequency to implement a time error correction, and only a RELIABILITY AUTHORITY can be the Interconnection Time Monitor.	Policy 9E Requirement 1.4.5	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	R8 The RELIABILITY AUTHORITY shall ensure all BALANCING AUTHORITIES, TRANSMISSION OPERATORS, and GENERATION OPERATORS are aware of Geo-Magnetic Disturbance (GMD) forecast information and assist as needed in the development of any required response plans.		
	R9 The RELIABILITY AUTHORITY shall participate in NERC hotline discussions, assist in the assessment of reliability of the overall interconnected system, and coordinate actions in anticipated or actual emergency situations. The RELIABILITY AUTHORITY shall disseminate such information within its RELIABILITY AUTHORITY AREA.	Policy 9E Requirement 1.4.6	
	R10 The RELIABILITY AUTHORITY shall monitor system frequency and its BALANCING AUTHORITIES' performance and direct any necessary rebalancing to return to CPS and DCS compliance. The BALANCING AUTHORITIES and TRANSMISSION OPERATORS shall utilize all resources, including firm load shedding, as directed by a RELIABILITY AUTHORITY to relieve the emergent condition.	Policy 9E Requirement 1.4.7	
	R11 The RELIABILITY AUTHORITY shall coordinate with other RELIABILITY AUTHORITIES and BALANCING AUTHORITIES, GENERATOR OPERATORS and TRANSMISSION OPERATORS, as needed to develop and implement action plans to mitigate potential or actual SOL, IROL, CPS or DCS violations. The RELIABILITY AUTHORITY shall coordinate pending generation and transmission maintenance outages with other RELIABILITY AUTHORITIES and BALANCING AUTHORITIES, GENERATOR OPERATORS and TRANSMISSION OPERATORS, as needed in both the real time and next day reliability analysis timeframes.	Policy 9E Requirement 1.4.8	
	R12 As necessary, the RELIABILITY AUTHORITY shall assist the BALANCING AUTHORITIES in its RELIABILITY AUTHORITY Area in arranging for assistance from neighboring RELIABILITY AUTHORITY AREAS or BALANCING AUTHORITIES.	Policy 9E Requirement 1.4.9	
	R13 The RELIABILITY AUTHORITY shall identify sources of large Area Control Errors that may be contributing to frequency, time error, or inadvertent interchange and shall discuss corrective actions with the appropriate BALANCING AUTHORITY. If a frequency, time error, or inadvertent problem occurs outside of the RELIABILITY AUTHORITY AREA, the RELIABILITY AUTHORITY shall initiate a NERC hotline call to discuss the frequency, time error, or inadvertent interchange with other RELIABILITY AUTHORITIES. The RELIABILITY	Policy 9E Requirement 1.4.10	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	AUTHORITY shall direct its BALANCING AUTHORITY to comply with CPS and DCS.		
	R14 Whenever a Special Protection System that may have an inter-BALANCING AUTHORITY, inter-TRANSMISSION OPERATOR, or inter-RELIABILITY AUTHORITY Area impact (e.g. could potentially affect transmission flows resulting in a SOL or IROL violation) is armed, the RELIABILITY AUTHORITIES shall be aware of the impact of the operation on inter-Area flows. The TRANSMISSION OPERATOR shall immediately inform the RELIABILITY AUTHORITY of the status of the Special Protection System including any degradation or potential failure to operate as expected.	Policy 9E Requirement 1.4.11	
	R15 The RELIABILITY AUTHORITY shall ensure that all BALANCING AUTHORITIES, GENERATOR OPERATORS, TRANSMISSION OPERATORS, TRANSMISSION SERVICE PROVIDERS, LOAD-SERVING ENTITIES, and PURCHASING-SELLING ENTITIES operate to prevent the likelihood that a disturbance, action, or non-action in its RELIABILITY AUTHORITY AREA will result in a SOL or IROL violation in another area of the INTERCONNECTION. In instances where there is a difference in derived limits, the RELIABILITY AUTHORITY and its BALANCING AUTHORITIES, GENERATOR OPERATORS, TRANSMISSION OPERATORS, TRANSMISSION SERVICE PROVIDERS, LOAD-SERVING ENTITIES, and PURCHASING-SELLING ENTITIES shall always operate the BULK ELECTRIC SYSTEM to the most limiting parameter.	Policy 9C Requirement 1.3	
	R16 The RELIABILITY AUTHORITY shall make known to TRANSMISSION SERVICE PROVIDERS within its RELIABILITY AUTHORITY AREA, SOLs or IROLs within its wide area view. The TRANSMISSION SERVICE PROVIDERS shall respect these SOLs or IROLs in accordance with filed tariffs and regional TTC/ATC calculation processes.	Policy 9C Requirement 1.5	
	R17 The RELIABILITY AUTHORITY shall issue directives in a clear, concise, definitive manner. The RELIABILITY AUTHORITY shall receive a response from the person receiving the directive that repeats the information given. The RELIABILITY AUTHORITY shall acknowledge the statement as correct or repeat the original statement to resolve misunderstandings.	Policy 9C Requirement 1.6	This requirement is identical to one in Standard 029 and should be deleted in Version 0.
	R18 The RELIABILITY AUTHORITY who foresees a transmission problem (such as an SOL or IROL violation, loss of reactive reserves, etc.) within its RELIABILITY AUTHORITY AREA shall issue an alert to all	Policy 9E Requirement 1.5	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	impacted BALANCING AUTHORITIES and TRANSMISSION OPERATORS in its RELIABILITY AUTHORITY AREA, and all impacted RELIABILITY AUTHORITIES within the INTERCONNECTION via the Reliability Authority Information System without delay. The receiving RELIABILITY AUTHORITY shall disseminate this information to its impacted BALANCING AUTHORITIES and TRANSMISSION OPERATORS. The RELIABILITY AUTHORITY shall notify all impacted BALANCING AUTHORITIES, TRANSMISSION OPERATORS and RELIABILITY AUTHORITIES when the transmission problem has been mitigated.		
	R19 The RELIABILITY AUTHORITY shall confirm reliability assessment results and determine the effects within its own and adjacent RELIABILITY AUTHORITY AREAS. The RELIABILITY AUTHORITY shall discuss options to mitigate potential or actual SOL or IROL violations and take actions as necessary as to always act in the best interests of the Interconnection at all times.	Policy 9C Requirement 1.6	
Measures	Not Specified.		
Regional Differences	None Identified.		
Compliance Monitoring Process	Not Specified.		
Levels of Non Compliance	Not Specified.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	039	Compliance Template P9T2 Policy 9 Section F	
Title	Reliability Coordination – Transmission Loading Relief		
Purpose	Regardless of the process it uses, the RELIABILITY AUTHORITY must direct its BALANCING AUTHORITIES and TRANSMISSION OPERATORS to return the transmission system to within the IROL as soon as possible, but no longer than 30 minutes. The RELIABILITY AUTHORITY needs to direct BALANCING AUTHORITIES and TRANSMISSION OPERATORS to execute actions such as reconfiguration, redispatch or load shedding until relief requested by the TLR process is achieved.	Policy 9F Requirement 1.	
Effective Date	February 8, 2005		
Applicability	1. RELIABILITYAUTHORITIES 2. TRANSMISSION OPERATORS 3. BALANCING AUTHORITIES		
Requirements	R1 A RELIABILITY AUTHORITY shall take appropriate actions in accordance with established policies, procedures, authority and expectations, to relieve transmission loading.	Compliance Template P9T2	
	R2 For a transmission system within its RELIABILITY AUTHORITY AREA the RELIABILITY AUTHORITY shall, at its discretion, select from either a "local" (Regional, Interregional, or subregional) transmission loading relief procedure or an INTERCONNECTION-wide procedure.	Policy 9F Requirement 3.1	For Version 0, the Drafting Team intends to attach the existing TLR procedures and equivalent congestion relief procedures in the Policy 9 appendices. Work is in progress to translate these appendices to the Functional Model language. The Drafting Team is requesting WECC and ERCOT to evaluate and update appendices 9C2 and 9C3 respectively.
	R3 The RELIABILITY AUTHORITY may use local transmission loading relief or congestion management procedures, provided the TRANSMISSION OPERATOR experiencing the potential or actual IROL violation is a party to those procedures.	Policy 9F Requirement 3.2	
	R4 A RELIABILITY AUTHORITY may implement a local transmission loading relief or congestion management procedure simultaneously with an Interconnection-wide procedure. However, the RELIABILITY AUTHORITY shall follow the curtailments as directed	Policy 9F Requirement 3.3	

Proposed Draft Version 0 Standard Language			Existing Document References	Comments
		by the Interconnection-wide procedure. A RELIABILITY AUTHORITY desiring to use a local procedure as a substitute for curtailments as directed by the Interconnection-wide procedure, shall have such use approved by the NERC Operating Committee.		
	R5	When implemented, all RELIABILITY AUTHORITIES shall comply with the provisions of the INTERCONNECTION-wide procedure including action by RELIABILITY AUTHORITIES in other INTERCONNECTIONS to, for example, curtail an INTERCHANGE TRANSACTION that crosses an INTERCONNECTION boundary.	Policy 9F Requirement 3.4	
	R6	During the implementation of relief procedures, and up to the point that emergency action is necessary, RELIABILITY AUTHORITIES and BALANCING AUTHORITIES shall comply with interchange scheduling standards.	Policy 9F Requirement 3.5	
	R7	The TRANSMISSION OPERATOR experiencing a potential or actual SOL violation on the transmission system within its AREA shall, at its discretion, select from either a "local" (Regional, Interregional, or subregional) transmission loading relief procedure or may request it's RELIABILITY AUTHORITY to issue an INTERCONNECTION-wide procedure. When implemented, all TRANSMISSION OPERATORS and RELIABILITY AUTHORITIES shall comply with the provisions of the INTERCONNECTION-wide procedure including action by RELIABILITY AUTHORITIES in other INTERCONNECTIONS to, for example, curtail an INTERCHANGE TRANSACTION that crosses an INTERCONNECTION boundary.	Policy 9F Requirement 4	
Measures	M1	If required, an investigation will be conducted to determine if appropriate actions were taken in accordance with established policies, procedures, authority and expectations, to relieve transmission loading including notifying appropriate RELIABILITY AUTHORITIES and operating entities to curtail INTERCHANGE TRANSACTIONS.	Compliance Template P9T2	
Regional Differences	None Identified.			
Compliance Monitoring Process	The RRC or NERC may initiate an investigation if there is a complaint that an entity has not implemented relief procedures in accordance with the requirements identified in the Compliance Assessment Notes. Reset Period: One month without a violation.		Compliance Template P9T2	
Levels of Non Compliance	The RELIABILITY AUTHORITY must follow the following requirements when relief of transmission congestion is required:		Compliance Template P9T2	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	• Implementing relief procedures. If transmission loading progresses or is projected to violate a SOL or IROL, the RELIABILITY AUTHORITY will perform the following procedures as necessary: • Selecting transmission loading relief procedure. The RELIABILITY AUTHORITY experiencing a potential or actual SOL or IROL violation on the transmission system within its RELIABILITY AUTHORITY AREA shall, at its discretion, select from either a "local" (Regional, Interregional, or subregional) transmission loading relief procedure or an INTERCONNECTION-wide procedure, such as those listed in Appendix 9C1, 9C2, or 9C3. • Using local transmission loading relief procedure. The RELIABILITY AUTHORITY may use local transmission loading relief or congestion management procedures, provided the TRANSMISSION OPERATOR experiencing the potential or actual SOL or IROL violation is a party to those procedures. • Using a local procedure with an INTERCONNECTION-wide procedure. A RELIABILITY AUTHORITY may implement a local transmission loading relief or congestion management procedure simultaneously with an INTERCONNECTION-wide procedure. However, the RELIABILITY AUTHORITY is obligated to follow the curtailments as directed by the INTERCONNECTION-wide procedure. If the RELIABILITY AUTHORITY desires to use a local procedure as a substitute for curtailments as directed by the INTERCONNECTION-wide procedure, it may do so only if such use is approved by the NERC Operating Committee. • Complying with procedures. When implemented, all RELIABILITY AUTHORITIES shall comply with the provisions of the INTERCONNECTION-wide procedure. This may include action by RELIABILITY AUTHORITIES in other INTERCONNECTIONS to for example, curtail an INTERCHANGE TRANSACTION that crosses an INTERCONNECTION boundary. • Complying with interchange policies. During the implementation of relief procedures, and up to the point that emergency action is necessary, RELIABILITY AUTHORITIES and operating entities shall comply with the Interchange Scheduling Standards. • For the Eastern Interconnection, TLR Procedure notification documentation, operator logs of sink and neighbor BALANCING		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	AUTHORITIES as well as related electronic communications are subject to field review.		

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
Standard	040		
Title	Reliability Coordination - System Restoration	Policy 9 Section G System Restoration	
Purpose	The RELIABILITY AUTHORITY must have a coordinating role in system restoration to ensure reliability is maintained during restoration and priority is placed on restoring the Interconnection.		Restoration planning is addressed in Standard 027. Redundancies with the requirements in this standard should be evaluated and consideration given to merging the standards in Version 0. The preferred approach may be to have one standard focused on restoration planning and another on implementation.
Effective Date	February 8, 2005		
Applicability	1. RELIABILITY AUTHORITY		
Requirements	R1 The RELIABILITY AUTHORITY shall be aware of the restoration plan of each TRANSMISSION OPERATOR in its RELIABILITY AUTHORITY AREA in accordance with NERC and regional requirements.	Policy 9G Requirement 1.	This requirement is redundant with Standard 027.
	R2 The RELIABILITY AUTHORITY shall monitor restoration progress and coordinate any needed assistance.	Policy 9G Requirement 1.	
	R3 The RELIABILITY AUTHORITY shall have a RELIABILITY AUTHORITY AREA restoration plan that provides coordination between individual TRANSMISSION OPERATOR restoration plans and that ensures reliability is maintained during system restoration events.	Policy 9G Requirement 2.	
	R4 The RELIABILITY AUTHORITY shall serve as the primary contact for disseminating information regarding restoration to neighboring RELIABILITY AUTHORITIES and BALANCING AUTHORITIES or TRANSMISSION OPERATORS not immediately involved in restoration.	Policy 9G Requirement 3.	
	R5 RELIABILITY AUTHORITIES shall approve, communicate, and coordinate the re-synchronizing of major system islands or synchronizing points so as not to cause a BURDEN on adjacent BALANCING AUTHORITY, TRANSMISSION OPERATOR, or RELIABILITY AUTHORITY AREAS.	Policy 9G Requirement 4.	

Proposed Draft Version 0 Standard Language		Existing Document References	Comments
	R6 The RELIABILITY AUTHORITY shall take actions to restore normal operations once an operating emergency has been mitigated in accordance with its restoration plan.	Policy 9G Requirement 4.1	
Measures	Not Specified.		
Regional Differences	None Identified.		
Compliance Monitoring Process	Not Specified.		
Levels of Non Compliance	Not Specified.		