

The following table lists the Violation Risk Factors (VRF s) for the Version 0 Communications and Facility Ratings standards requirements. These VRFs are the weighted average of the stakeholder VRF selections from the second posting of the VRF survey.

VIOLATION RISK FACTORS – VERSION 0 STANDARDS PRE-BALLOT MATRIX

Standard Number	Requirement Number	Requirement	Violation Risk Factor
COM-001-0	R1.	Each Reliability Coordinator, Transmission Operator and Balancing Authority shall provide adequate and reliable telecommunications facilities the exchange of Interconnection and operating information:	MEDIUM
COM-001-0	R1.1.	Internally.	MEDIUM
COM-001-0	R1.2.	Between the Reliability Coordinator and its Transmission Operators and Balancing Authorities.	MEDIUM
COM-001-0	R1.3.	With other Reliability Coordinators, Transmission Operators, and Balancing Authorities as necessary to maintain reliability.	MEDIUM
COM-001-0	R1.4.	Where applicable, these facilities shall be redundant and diversely routed.	MEDIUM
COM-001-0	R2.	Each Reliability Coordinator, 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.	MEDIUM
COM-001-0	R3.	Each Reliability Coordinator, 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 area and with other areas.	LOWER
COM-001-0	R4.	Unless agreed to otherwise, each Reliability Coordinator, Transmission Operator, and Balancing Authority shall use English as the language for all communications between and among operating personnel responsible for the real-time generation control and operation of the interconnected Bulk Electric System. Transmission Operators and Balancing Authorities may use an alternate language for internal operations.	MEDIUM
COM-001-0	R5.	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall have written operating instructions and procedures to enable continued operation of the system during the loss of telecommunications facilities.	LOWER
COM-001-0	R6.	Each NERCNet User Organization shall adhere to the requirements in Attachment 1-COM-001-0, "NERCNet Security Policy."	LOWER
COM-002-0	R1.	Each Transmission Operator, Balancing Authority, and Generator Operator shall have communications (voice and data links) with appropriate Reliability Coordinators, Balancing Authorities, and Transmission Operators. Such communications shall be staffed and available for addressing a real-time emergency condition.	HIGH

Standard Number	Requirement Number	Requirement	Violation Risk Factor
COM-002-0	R2.	Each Balancing Authority and Transmission Operator shall notify its Reliability Coordinator, 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 or when firm load shedding is anticipated. The following information shall be conveyed to others in the Interconnection via an Interconnection-wide telecommunications system:	HIGH
COM-002-0	R2.1.	The Balancing Authority is unable to purchase capacity or energy to meet its demand and reserve requirements on a day-ahead or hour-by-hour basis.	MEDIUM
COM-002-0	R2.2.	The Transmission Operator recognizes that potential or actual line loadings, and voltage or reactive levels are such that a single Contingency could threaten the reliability of the Interconnection. (Once a single Contingency occurs, the Transmission Operator must prepare for the next Contingency.)	HIGH
COM-002-0	R2.3.	The Transmission Operator anticipates initiating a 3% or greater voltage reduction, public appeals for load curtailments, or firm load shedding for other than local problems.	HIGH
FAC-001-0	R1.1.	Generation facilities,	MEDIUM
FAC-001-0	R1.2.	Transmission facilities, and	MEDIUM
FAC-001-0	R1.3.	End-user facilities	MEDIUM
FAC-001-0	R2.	The Transmission Owner's facility connection requirements shall address, but are not limited to, the following items:	MEDIUM
FAC-001-0	R2.1.1.	Procedures for coordinated joint studies of new facilities and their impacts on the interconnected transmission systems.	MEDIUM
FAC-001-0	R2.1.12.	Synchronizing of facilities.	MEDIUM
FAC-001-0	R2.1.15.	Inspection requirements for existing or new facilities.	MEDIUM
FAC-001-0	R2.1.2.	Procedures for notification of new or modified facilities to others (those responsible for the reliability of the interconnected transmission systems) as soon as feasible.	MEDIUM
FAC-001-0	R1.	The Transmission Owner shall document, maintain, and publish facility connection requirements to ensure compliance with NERC Reliability Standards and applicable Regional Reliability Organization, subregional, Power Pool, and individual Transmission Owner planning criteria and facility connection requirements. The Transmission Owner's facility connection requirements shall address connection requirements for:	MEDIUM
FAC-001-0	R2.1.	Provide a written summary of its plans to achieve the required system performance as described above throughout the planning horizon:	MEDIUM
FAC-001-0	R2.1.10.	Power quality impacts.	MEDIUM
FAC-001-0	R2.1.11.	Equipment Ratings.	MEDIUM
FAC-001-0	R2.1.13.	Maintenance coordination.	MEDIUM
FAC-001-0	R2.1.14.	Operational issues (abnormal frequency and voltages).	MEDIUM
FAC-001-0	R2.1.16.	Communications and procedures during normal and emergency operating conditions.	MEDIUM
FAC-001-0	R2.1.3.	Voltage level and MW and MVAR capacity or demand at point of connection.	MEDIUM

Standard Number	Requirement Number	Requirement	Violation Risk Factor
FAC-001-0	R2.1.4.	Breaker duty and surge protection.	MEDIUM
FAC-001-0	R2.1.5.	System protection and coordination.	MEDIUM
FAC-001-0	R2.1.6.	Metering and telecommunications.	MEDIUM
FAC-001-0	R2.1.7.	Grounding and safety issues.	MEDIUM
FAC-001-0	R2.1.8.	Insulation and insulation coordination.	MEDIUM
FAC-001-0	R2.1.9.	Voltage, Reactive Power, and power factor control.	MEDIUM
FAC-001-0	R3.	The Transmission Owner shall maintain and update its facility connection requirements as required. The Transmission Owner shall make documentation of these requirements available to the users of the transmission system, the Regional Reliability Organization, and NERC on request (five business days).	MEDIUM
FAC-002-0	R1.	The Generator Owner, Transmission Owner, Distribution Provider, and Load-Serving Entity seeking to integrate generation facilities, transmission facilities, and electricity end-user facilities shall each coordinate and cooperate on its assessments with its Transmission Planner and Planning Authority. The assessment shall include:	MEDIUM
FAC-002-0	R1.1.	Evaluation of the reliability impact of the new facilities and their connections on the interconnected transmission systems.	MEDIUM
FAC-002-0	R1.2.	Ensurance of compliance with NERC Reliability Standards and applicable Regional, subregional, Power Pool, and individual system planning criteria and facility connection requirements.	MEDIUM
FAC-002-0	R1.3.	Evidence that the parties involved in the assessment have coordinated and cooperated on the assessment of the reliability impacts of new facilities on the interconnected transmission systems. While these studies may be performed independently, the results shall be jointly evaluated and coordinated by the entities involved.	MEDIUM
FAC-002-0	R1.4.	Evidence that the assessment included steady-state, short-circuit, and dynamics studies as necessary to evaluate system performance in accordance with Reliability Standard TPL-001-0.	MEDIUM
FAC-002-0	R1.5.	Documentation that the assessment included study assumptions, system performance, alternatives considered, and jointly coordinated recommendations.	MEDIUM
FAC-002-0	R2.	The Planning Authority, Transmission Planner, Generator Owner, Transmission Owner, Load-Serving Entity, and Distribution Provider shall each retain its documentation (of its evaluation of the reliability impact of the new facilities and their connections on the interconnected transmission systems) for three years and shall provide the documentation to the Regional Reliability Organization(s) Regional Reliability Organization(s) and NERC on request (within 30 calendar days).	LOWER
FAC-003-0	R1.2.	Trimming clearances.	HIGH

Standard Number	Requirement Number	Requirement	Violation Risk Factor
FAC-003-0	R2.	Each Transmission Owner shall report to its Regional Reliability Organization all vegetation-related outages on transmission circuits 200 kV and higher and any other lower voltage lines designated by the Regional Reliability Organization to be critical to the reliability of the electric system.	LOWER
FAC-003-0	R1.	Each Transmission Owner shall have a vegetation management program to prevent transmission line contact with vegetation. The vegetation management program shall include the following three elements:	HIGH
FAC-003-0	R1.1.	Inspection requirements.	HIGH
FAC-003-0	R1.3.	Annual work plan.	HIGH
FAC-004-0	R1.1.2.	Transformers.	LOWER
FAC-004-0	R1.	The Transmission Owner and Generator Owner shall each document the methodology(ies) used to determine its electrical equipment and Facility Rating. Further, the methodology(ies) shall comply with applicable Regional Reliability Organization requirements. The documentation shall address and include	LOWER
FAC-004-0	R1.1.	The methodology(ies) used to determine equipment and Facility Rating of the items listed for both normal and emergency conditions:	LOWER
FAC-004-0	R1.1.1.	Transmission circuits.	LOWER
FAC-004-0	R1.1.3.	Series and shunt reactive elements.	LOWER
FAC-004-0	R1.1.4.	Terminal equipment (e.g., switches, breakers, current transformers, etc).	LOWER
FAC-004-0	R1.1.5.	VAR compensators.	LOWER
FAC-004-0	R1.1.6.	High voltage direct current converters.	LOWER
FAC-004-0	R1.1.7.	Any other device listed as a Limiting Element.	LOWER
FAC-004-0	R1.2.	The Rating of a facility shall not exceed the Rating(s) of the most Limiting Element(s) in the circuit, including terminal connections and associated equipment.	MEDIUM
FAC-004-0	R1.3.	In cases where protection systems and control settings constitute a loading limit on a facility, this limit shall become the Rating for that facility.	MEDIUM
FAC-004-0	R1.4.	Ratings of jointly-owned and jointly-operated facilities shall be coordinated among the joint owners and joint operators resulting in a single set of Ratings.	LOWER
FAC-004-0	R1.5.	The documentation shall identify the assumptions used to determine each of the equipment and Facility Ratings, including references to industry Rating practices and standards (e.g., ANSI, IEEE, etc.). Seasonal Ratings and variations in assumptions shall be included.	LOWER
FAC-004-0	R2.	The Transmission Owner and Generator Owner shall provide documentation of the methodology(ies) used to determine its transmission equipment and Facility Ratings to the Regional Reliability Organization(s) and NERC on request (30 calendar days).	LOWER

Standard Number	Requirement Number	Requirement	Violation Risk Factor
FAC-005-0	R1.	The transmission Owner, and Generator Owner shall each have on file or be able to readily provide, a document or database identifying the Normal and Emergency Ratings of all of its transmission facilities (e.g., lines, transformers, terminal equipment, and storage devices) that are part of the interconnected transmission systems. Seasonal variations in Ratings shall be included as appropriate.	LOWER
FAC-005-0	R1.1.	The Ratings shall be consistent with the entity's methodology(ies) for determining Facility Ratings and shall be updated as facility changes occur.	MEDIUM
FAC-005-0	R2.	The transmission Owner and Generator Owner shall provide the Normal and Emergency Facility Ratings of all its transmission facilities to the Regional Reliability Organization(s) and NERC on request (30 calendar days).	LOWER