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# **Compliance Audit Report New York Independent System Operator NYISO**

**December 3-7, 2007**

Public Report

Confidential Information (Including Privileged and  
Critical Energy Infrastructure Information) Has  
Been Removed.

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## Executive Summary

The onsite compliance audit of the NYISO facility was conducted on December 3-6, 2007. The auditors evaluated NYISO compliance with twenty-four reliability standards pertaining to the Reliability Coordinator, Balancing Authority, and Transmission Operator functions identified in the NERC 2007 Implementation Plan for the period of the last twelve months or monitoring timeframes specified in each reliability standard. The auditors reviewed accompanying documentation the NYISO presented as evidence of compliance.

One of the reliability standards applicable to Transmission Operators was classified as not applicable to NYISO, see Audit Results Findings. NYISO provided adequate evidence of compliance with the remaining standards.

In addition, an offsite audit was conducted on the NYISO Planning Authority and Transmission Planning functions immediately following the onsite audit. All four reliability planning standards applied to NYISO and they provided adequate evidence of compliance.

## Audit Process

The compliance audit process steps are detailed in the NERC CMEP. The NERC CMEP generally conforms to the United States Government Accountability Office Government Auditing Standards and other generally accepted audit practices.

## Objectives

All registered entities are subject to audit for compliance with all reliability standards applicable to the functions for which the registered entity is registered.<sup>1</sup> The audit objectives are:

- Independently review NYISO's compliance with the requirements of the reliability standards that are applicable to NYISO based on its registered functions.
- Validate compliance with applicable reliability standards from the NERC 2007 Implementation Plan list of actively monitored standards.

## Scope

The compliance audit was performed by independent auditors with support from the regional compliance manager and a NERC observer. Confidentiality agreements executed by the independent contractors and code of conduct documentation for the NERC representative and regional compliance staff were provided to the audited entity in advance of the audit. NYISO was given an opportunity to object to the auditors on the basis of a possible conflict of interest or the existence of other circumstances that could interfere with the auditor's impartial performance of duties. NYISO accepted the auditors with no objections.

The auditors questioned several employees representing subject matter expertise and reviewed accompanying documentation NYISO presented as evidence of compliance. The NYISO employees represented the Reliability Coordinator, Balancing Authority, and Transmission Operator functions from the organization. The lead auditor in addition interviewed

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<sup>1</sup> [North American Electric Reliability Corporation CMEP, paragraph 3.1, Compliance Audits](#)

NYISO employees in conjunction with the Planning Authority and Transmission Planning functions immediately following the onsite audit. This request was agreed to by the NYISO so that the lead auditor could take advantage of the expertise onsite and expedite the research aspect of compliance to the TPL standards.

Compliance audits of RC, BA, and TOP are scheduled on a periodic basis of three year intervals. PA and TPL functions are scheduled on a six year basis. The reliability standards reviewed in the NYISO audit included all of the standards pertaining to these functions in the NERC 2007 Implementation Plan. For the 2007 program, reliability standards are monitored based on the retention periods and monitoring timeframes specified in each reliability standard. The list of reliability standards along with their corresponding monitoring timeframes are listed in Appendix 1. The Northeast Power Coordinating Council's Compliance Manager provided a list of reliability standards and supporting documentation to NYISO before the audit.

## ***Methodology***

The auditors reviewed the documented evidence and if after reviewing the submitted evidence, the auditors had additional questions, the NYISO subject matter experts were asked to respond to the questions by way of a face to face meeting.

The auditors would take time to go through submitted evidence and discuss findings with NPCC's Compliance Supervisor and with other NYISO representatives to determine if the evidence meets the requirements of the reliability standard. If the evidence was inadequate or did not cover all of the requirements in the reliability standard, the auditors would have asked for additional evidence. If NYISO could not find or submit additional evidence then the auditors would have determined that a possible violation exists. The NYISO would not have been asked to create documentation in these instances only to submit existing evidence in addition to what was already submitted. The auditors reviewed NYISO's documentation onsite as well as offsite. The NYISO subject matter experts provided additional evidence to support their compliance in the form of verbal explanation and additional copies of procedures and studies. Examples of compliance are site procedures/policies/instructions, emails, log extracts and system studies. Throughout the audit, the auditors took notes on findings of evidence of compliance or if evidence was not sufficient to show compliance.

The auditors shared their preliminary results verbally with the NYISO subject matter experts.

The audit team conducted an exit briefing immediately following the audit with NYISO compliance audit participants and higher level NYISO management personnel. The audit team shared its preliminary results verbally and via a presentation. The NYISO audit participants asked questions and commented on the audit team's findings.

The exit briefing was also a forum for the audit team to offer informal considerations for process improvement. These considerations are not included in this audit report but were documented in the exit presentation and were left with NYISO in the form of a Power-point presentation.

The contract auditors will delete all NYISO related material from their computers and destroy or return all applicable physical media to NPCC for storage once the report is finalized and posted.

## ***Audit Considerations***

No audit process or procedure can define every possible aspect, situation or scenario encountered by auditors when conducting a compliance audit. Auditors are expected to use their best professional judgment. The following paragraphs describe considerations when conducting bulk electric system reliability compliance audits.

Compliance audits of the bulk electric system reliability are based on newly accepted mandatory reliability standards. Implementation of the reliability standards involves some risk for compliance audits due to the inherent learning curve of registered entities. This risk is mitigated by educating registered entities via regional compliance seminars, providing reliability standard information on the regional and NERC websites, encouraging industry involvement in the standards development process and by training compliance auditors.

The bulk electric system contains many variables which require skilled personnel to plan and operate in a reliable manner. Many requirements in the NERC reliability standards specify or are dependent on reliability studies depicting both the planning and operational time horizons. It is difficult to audit the validity of the multitude of studies that are performed to ensure registered entities meet these requirements. To mitigate this risk the audit team must make professional judgments in its assessment of compliance based on 1) the interview with the registered entities subject matter experts, 2) documented reports and policies, 3) tools/programs used to perform the studies, 4) results of the studies.

## ***Company Profile***

The NYISO is registered with NERC as the Reliability Coordinator, Balancing Authority, Transmission Operator, Transmission Service Provider, Planning Authority, Transmission Planner and Resource Planner for the New York area. The Northeast Power Coordinating Council (NPCC) is the Regional Reliability Organization.

The New York Independent System Operator, Inc. (NYISO) was formed in 1997, and commenced operations in 1999 as a not-for-profit corporation regulated by the Federal Energy Regulatory Commission (FERC) charged with maintaining the reliability of the New York area and administering the New York electricity markets.

The NYISO operates the Bulk Power System contiguous with the New York State geographic boundary. Its Power Control Center (PCC) is located at 3890 Carman Road in Schenectady, N.Y.; its administrative building is at the Krey Corporate Center (KCC) in Rensselaer, N.Y.

The NYISO's various authorities are expressly detailed in two Federal Energy Regulatory Commission approved tariffs, commonly called the Open Access Transmission Tariff and the Market Administration and Control Area Services Tariff. The NYISO also operates in accordance with the Independent System Operator Agreement, the Agreement between New York Independent System Operator and Transmission Owners, Agreement Between the New York Independent System Operator and the New York State Reliability Council. These tariffs and agreements give the NYISO the authority to direct the operation of the Bulk Power System

so as to maintain system reliability in accordance with good utility practice and applicable reliability rules.

The NYISO directs all bulk power transmission system operations including continuous reliability analysis, generating resource commitment and dispatch and voltage control. The NYISO does not delegate any of the responsibilities defined by the NYISO registration with the NERC functional model. Some operational functions, such as the adjustment of phase angle regulators or voltage control devices are carried out under direction of the NYISO by the eight transmission owners that do not take independent actions which are the responsibility of the NYISO.

The NYISO administers wholesale electricity markets in New York, including Real Time and Day-Ahead energy, six ancillary services, and provides auctions for financial transmission rights. The NYISO also provides short and long term comprehensive planning functions.

### ***Audit Specifics***

The NYISO onsite/offsite compliance audits were conducted on December 3-7, 2007.

#### **Audit Team**

<b>Audit Team Role</b>	<b>Name</b>	<b>Title</b>	<b>Company</b>
Lead Auditor	Kim Pitchell	Contracted Consultant	NPCC-Compliance Audit Program
Auditor	Garth Arnott	Contracted Consultant	NPCC-Compliance Audit Program
Observer	Cherie Broadrick	Manager	NERC-Regional Compliance Program Oversight
Team Lead	Sal Buffamante	Manager	NPCC-Compliance Audit Program

#### **NYISO Participants**

<b>Name</b>	<b>Title</b>	<b>NYISO Organization</b>
Gregory Campoli	Supervisor-Reliability Compliance and Assessment	Grid Operations
John Ravalli	Chief System Operator	Grid Operations
William deVries	Reliability Engineer	Grid Operations
Reginald Harnish	Manager-Infrastructure Services	Information Technologies
Dennis Van Amburgh	Supervisor- Enterprise	Information

<b>Name</b>	<b>Title</b>	<b>NYISO Organization</b>
	Security	Technologies
Allen Hargrave	Manager- Energy Market Operations	Market Operations
Kenneth Litske	Shift Supervisor	Grid Operations
Hugh Brown	Shift Supervisor	Grid Operations
Dean Ellis	Manager- Short Term Planning Group	System and Resource Planning
William Lamanna	Manager- Long Term Planning Group	System and Resource Planning
Walter Pfuntner	Quality and Compliance Administrator	System and Resource Planning
Robert Waldele	Contractor- Short Term Planning	System and Resource Planning

## Audit Results

The auditor documented the evidence reviewed for compliance with each applicable reliability standard.

### Findings

The following table details the summarized auditor notes relating to evidence reviewed for compliance with the reliability standards.

<b>Reliability Standard</b>	<b>Auditor Notes</b>	<b>Finding</b>
BAL-001-0	NYISO provided adequate evidence of compliance:R3/4 N/A	Compliant
BAL-002-0	NYISO provided adequate evidence of compliance	Compliant
BAL-003-0	NYISO provided adequate evidence of compliance:R4/6 N/A	Compliant
CIP-001-1	NYISO provided adequate evidence of compliance	Compliant
CIP-002-1 through CIP-009-1	Not applicable at this time	NA
COM-001-1	NYISO provided adequate evidence of compliance for all R's	Compliant
EOP-001-0	NYISO provided adequate evidence of compliance	Compliant
EOP-003-1	NYISO provided adequate evidence of compliance	Compliant
EOP-005-1	NYISO provided adequate evidence of compliance: R11 N/A	Compliant
EOP-006-1	NYISO provided adequate evidence of compliance	Compliant
EOP-008-0	NYISO provided adequate evidence of compliance	Compliant
EOP-009-0	Not applicable	Compliant
FAC-003-1	Not applicable	NA
FAC-008-1	Not applicable	NA
FAC-009-1	Not applicable	NA
IRO-001-1	NYISO provided adequate evidence of compliance:R1/4/5/6 N/A	Compliant
IRO-004-1	NYISO provided adequate evidence of compliance	Compliant

<b>Reliability Standard</b>	<b>Auditor Notes</b>	<b>Finding</b>
IRO-014-1	NYISO provided adequate evidence of compliance	Compliant
IRO-015-1	NYISO provided adequate evidence of compliance	Compliant
IRO-016-1	NYISO provided adequate evidence of compliance	Compliant
PER-002-0	NYISO provided adequate evidence of compliance	Compliant
PER-003-0	NYISO provided adequate evidence of compliance	Compliant
PER-004-1	NYISO provided adequate evidence of compliance	Compliant
PRC-004-1	Not applicable	Compliant
PRC-005-1	Not applicable	Compliant
PRC-008-0	Not applicable	NA
PRC-010-0	Deemed to be not applicable	NA
PRC-011-0	Not applicable	NA
PRC-016-0	Not applicable	NA
PRC-017-0	Not applicable	NA
PRC-021-1	Not applicable	NA
TOP-003-0	NYISO provided adequate evidence of compliance	Compliant
TOP-004-1	NYISO provided adequate evidence of compliance:R4/5 N/A	Compliant
TOP-005-1	NYISO provided adequate evidence of compliance:R4 N/A	Compliant
TOP-007-0	NYISO provided adequate evidence of compliance	Compliant
TPL-001-0	NYISO provided adequate evidence of compliance	Compliant
TPL-002-0	NYISO provided adequate evidence of compliance	Compliant
TPL-003-0	NYISO provided adequate evidence of compliance	Compliant
TPL-004-0	NYISO provided adequate evidence of compliance	Compliant
VAR-001-1	NYISO provided adequate evidence of compliance:R5 N/A	Compliant

## **Conclusions**

NYISO provided significant evidence of compliance with all of the applicable monitored reliability standards. The documentation and employee support afforded the auditors by NYISO was precise and excellent. However, a few procedures/guidelines reviewed by the audit team required at least one element of a “valid” procedure. Valid procedures are:

- Dated
- Referenced by Revision number
- Approved
- Signed

NPCC has recommended to other registered entities an Electronic Signature policy that has the approval signature on file. If using electronic signatures, each procedure/guideline must state “electronically signed.”

NYISO immediately acted to remedy the issue and provided proof later in the audit that the specific instruction(s) were corrected.

As a result of the audit, NPCC concluded that NYISO is doing an outstanding job in supporting the NERC compliance program.



## **Summary of NYISO Response to the Audit Findings**

The New York ISO concurs with the report as written. The New York ISO management and staff that prepared for, and participated in, the NERC Audit would like to acknowledge the high level of technical expertise held by the NPCC Audit Team, as well as professional manner in the conduct of the audit itself. The NPCC Audit Team, allowed for an open discussion when the ISO responses required clarification and this interaction allowed for a better understanding of how the ISO meets its compliance obligations of the NERC Reliability Standards. The New York ISO supports the continued development of mandatory NERC standards and audit processes implemented by NPCC to further enhance reliability of the Bulk Power System, not only for New York State, but for all the North American interconnected systems.

## Appendix I – Applicable Reliability Standards

Std #	Requirements	Standard	Who	Purpose	Monitoring Timeframe	Applicable to NYISO?
BAL-001-0	All except R3,R4	<b>Real Power Balancing Control Performance</b>	BA	To maintain Interconnection steady-state frequency within defined limits by balancing real power demand and supply in real-time.	The data that supports the calculation of CPS1 and CPS2 (Attachment 1-BAL-001-0) are to be retained in electronic form for at least a one-year period. If the CPS1 and CPS2 data for a Balancing Authority 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 (ACEi), one-minute average Frequency Error, and, if using variable bias, one-minute average Frequency Bias.	Yes
BAL-002-0	All	<b>Disturbance Control Performance</b>	BA, RSG, RRO	To ensure the Balancing Authority is able to utilize its Contingency Reserve to balance resources and demand and return Interconnection frequency within defined limits.	Compliance for DCS will be evaluated for each reporting period. Reset is one calendar quarter without a violation.  The data that support the calculation of DCS are to be retained in electronic form for at least a one-year period.	Yes

<b>Std #</b>	<b>Requirements</b>	<b>Standard</b>	<b>Who</b>	<b>Purpose</b>	<b>Monitoring Timeframe</b>	<b>Applicable to NYISO?</b>
BAL-003-0	All except R4,R6	<b>Frequency Response and Bias</b>	BA	This standard provides a consistent method for calculating the Frequency Bias component of ACE.	Yearly or by request.	Yes
CIP-001-1	All	<b>Sabotage Reporting</b>	RC, BA, TOP, GOP, LSE	Disturbances or unusual occurrences, suspected or determined to be caused by sabotage, shall be reported to the appropriate systems, governmental agencies, and regulatory bodies.	By request and any events in the last year.	Yes
CIP-002-1 through CIP-009-1	All	<b>Critical Infrastructure Protection Standards</b>	BA, GO, GOP, IA, LSE, NERC, RC, RRO, TO, TOP, TSP	Cyber Security Standards-Follow revised Implementation Plan for Cyber Security Standards CIP-002-1 through CIP-009-1	By request.	No, not at this time
COM-001-1	Only R2 and R5 requested but all are applicable	<b>Telecommunications</b>	TO, BA, RC, NERCNet User Organizations.	Each Reliability Coordinator, Transmission Operator and Balancing Authority needs adequate and reliable telecommunications facilities internally and with others for the exchange of Interconnection and operating information necessary to maintain reliability.	By request.	Yes

Std #	Requirements	Standard	Who	Purpose	Monitoring Timeframe	Applicable to NYISO?
EOP-001-0	All	<b>Emergency Operations Planning</b>	BA, TOP	Each Transmission Operator and Balancing Authority needs to develop, maintain, and implement a set of plans to mitigate operating emergencies. These plans need to be coordinated with other Transmission Operators and Balancing Authorities, and the Reliability Coordinator.	By request.	Yes
EOP-003-1	All	<b>Load Shedding Plans</b>	BA, TOP	A Balancing Authority and Transmission Operator operating with insufficient generation or transmission capacity must have the capability and authority to shed load rather than risk an uncontrolled failure of the Interconnection.	R1, R5, R6 - Event Driven. Has an event occurred in the past year? R2, R3, R4, R7, R8 – By request	Yes
EOP-005-1	All except R11	<b>System Restoration Plans</b>	BA, TOP	To ensure plans, procedures, and resources are available to restore the electric system to a normal condition in the event of a partial or total shut down of the system	By request. Note: entity must follow the timelines specified in the standard: show that the plan is reviewed annually; simulation or testing must be done every 5 years.	Yes
EOP-006-1	All	<b>Reliability Coordination – System Restoration</b>	RC	The Reliability Coordinator must have a coordinating role in system restoration to ensure reliability is maintained during restoration and priority is placed on restoring the Interconnection.	By request.	Yes

<b>Std #</b>	<b>Requirements</b>	<b>Standard</b>	<b>Who</b>	<b>Purpose</b>	<b>Monitoring Timeframe</b>	<b>Applicable to NYISO?</b>
EOP-008-0	All	<b>Plans for Loss of Control Center Functionality</b>	BA, RC, TOP	Each reliability entity must have a plan to continue reliability operations in the event its control center becomes inoperable.	By request.	Yes
EOP-009-0	All	<b>Documentation of Blackstart Generating Unit Test Results</b>	GO, GOP	To ensure that the quantity and location of system black start generators are sufficient and that they can perform their expected functions.	By request. Note entity must meet testing frequency specified in EOP-007-0.	No
FAC-003-1	All	<b>Vegetation Management</b>	RRO, TO	To improve the reliability of the electric transmission systems by preventing outages from vegetation located on transmission rights-of-way (ROW) and minimizing outages from vegetation located adjacent to ROW, maintaining clearances between transmission lines.	By request – program documentation and last 4 quarterly outage reports.	No
FAC-008-1	All	<b>Facility Ratings Methodology</b>	GO, TO	To ensure that Facility Ratings used in the reliable planning and operation of the Bulk Electric System (BES) are determined based on an established methodology.	By request the current methodology and any superseded portions of the methodology within the past 12 months.	No
FAC-009-1	All	<b>Establish and Communicate Facility Ratings</b>	GO, TO	To ensure that Facility Ratings used in the reliable planning and operation of the Bulk Electric System (BES) are determined based on an established methodology or methodologies.	By request.	No

Std #	Requirements	Standard	Who	Purpose	Monitoring Timeframe	Applicable to NYISO?
IRO-001-1	All, except R1, R4, R5, R6	<b>Reliability Coordination – Responsibilities and Authorities</b>	BA, GOP, LSE, PSE, RC, RRO, TOP, TSP	Reliability Coordinators must have the authority, plans, and agreements in place to immediately direct reliability entities within their Reliability Coordinator Areas to re-dispatch generation, reconfigure transmission, or reduce load to mitigate critical conditions to return the system to a reliable state. If a Reliability Coordinator delegates tasks to others, the Reliability Coordinator retains its responsibilities for complying with NERC and regional standards. Standards of conduct are necessary to ensure the Reliability Coordinator does not act in a manner that favors one market participant over another.	By request.	Yes
IRO-004-1	All	<b>Reliability Coordination — Operations Planning</b>	BA, GO, GOP, LSE, RC, TO, TOP, TSP	Each Reliability Coordinator must conduct next-day reliability analyses for its Reliability Coordinator Area to ensure the Bulk Electric System can be operated reliably in anticipated normal and Contingency conditions.	By request.	Yes

<b>Std #</b>	<b>Requirements</b>	<b>Standard</b>	<b>Who</b>	<b>Purpose</b>	<b>Monitoring Timeframe</b>	<b>Applicable to NYISO?</b>
IRO-014-1	All	<b>Procedures, Processes, or Plans to Support Coordination Between Reliability Coordinators</b>	RC	To ensure that each Reliability Coordinator's operations are coordinated such that they will not have an Adverse Reliability Impact on other Reliability Coordinator Areas and to preserve the reliability benefits of interconnected operations.	By request.	Yes
IRO-015-1	All	<b>Notifications and Information Exchange Between Reliability Coordinators</b>	RC	To ensure that each Reliability Coordinator's operations are coordinated such that they will not have an Adverse Reliability Impact on other Reliability Coordinator Areas and to preserve the reliability benefits of interconnected operations.	Rolling 12 months of information provided on request.	Yes
IRO-016-1	All	<b>Coordination of Real-time Activities Between Reliability Coordinators</b>	RC	that they will not have an Adverse Reliability Impact on other Reliability Coordinator Areas	Rolling 12 months of information provided on request.	Yes
PER-002-0	All	<b>Operating Personnel Training</b>	BA, TOP	Each Transmission Operator and Balancing Authority must provide their personnel with a coordinated training program that will ensure reliable system operation.	By request training program and training records.	Yes
PER-003-0	All	<b>Operating Personnel Credentials</b>	BA, RC, TOP	Certification of operating personnel is necessary to ensure minimum competencies for operating a reliable Bulk Electric System.	By request latest certification information and present calendar year plus previous calendar year staffing plan.	Yes

Std #	Requirements	Standard	Who	Purpose	Monitoring Timeframe	Applicable to NYISO?
PER-004-1	All	<b>Reliability Coordination — Staffing</b>	RC	Reliability Coordinators must have sufficient, competent staff to perform the Reliability Coordinator functions.	By request - Each Reliability Coordinator shall keep evidence of compliance for the previous two calendar years plus the current year.	Yes
PRC-004-1	All	<b>Analysis and Mitigation of Transmission and Generation Protection System Misoperations</b>	DP*, GO, TO	Provide trip operation / misoperation information per regional process.	By request – last 12 months of protection system Misoperation analysis.	No
PRC-005-1	All	<b>Transmission and Generation Protection System Maintenance and Testing</b>	DP*, GO, TO	Document/implement transmission protection system maintenance/testing/monitoring PROGRAM	By request - maintenance and testing program and testing records to show that testing intervals are on schedule.	No
PRC-008-0	All	<b>Implementation and Documentation of Underfrequency Load Shedding Equipment Maintenance Program</b>	DP, TO	Document/implement UFLS maintenance/testing PROGRAM	By request - maintenance and testing program and testing records to show that testing intervals are on schedule.	No
PRC-010-0	All	<b>Technical Assessment of the Design and Effectiveness of Undervoltage Load Shedding Program.</b>	DP, LSE, TO, TOP	ASSESS design and effectiveness of UVLS programs	By request – current assessment.	No
PRC-011-0	All	<b>UVLS System Maintenance and Testing</b>	DP, TO	Document/implement UVLS maintenance/testing PROGRAM	By request - maintenance and testing program and testing records to show that testing intervals are on schedule.	No
PRC-016-0	All	<b>Special Protection System Misoperations</b>	DP, GO, TO	DOCUMENT/analyze misoperations	By request – last 12 months of special protection system Misoperation analysis.	No



<b>Std #</b>	<b>Requirements</b>	<b>Standard</b>	<b>Who</b>	<b>Purpose</b>	<b>Monitoring Timeframe</b>	<b>Applicable to NYISO?</b>
PRC-017-0	All	<b>Special Protection System Maintenance and Testing</b>	DP, GO, TO	Document/implement SPS maintenance/testing PROGRAM	By request - maintenance and testing program and testing records to show that testing intervals are on schedule.	No
PRC-021-1	All	<b>Under-Voltage Load Shedding Program Data</b>	DP, TO	DOCUMENTATION of undervoltage load shedding program	By request – latest UVLS data.	No
TOP-003-0	All	<b>Planned Outage Coordination</b>	BA, GOP, RC, TOP	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 Coordinators.	By request.	Yes
TOP-004-1	All, except R4,R6	<b>Transmission Operations</b>	TOP	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.	By request - Each Transmission Operator shall keep 90 days of historical data for Measure 1. Each Transmission Operator shall have current, in-force policies and procedures, as evidence of compliance to Measure 2.	Yes
TOP-005-1	All, except R4	<b>Operational Reliability Information</b>	BA, PSE, RC, TOP	To ensure reliability entities have the operating data needed to monitor system conditions within their areas.	By request.	Yes

<b>Std #</b>	<b>Requirements</b>	<b>Standard</b>	<b>Who</b>	<b>Purpose</b>	<b>Monitoring Timeframe</b>	<b>Applicable to NYISO?</b>
TOP-007-0	All	<b>Reporting System Operating Limit (SOL) and Interconnection Reliability</b>	RC, TOP	Ensure SOL and IROL violations are being reported to the Reliability Coordinator so that the Reliability Coordinator may evaluate actions being taken and direct additional corrective actions as needed.	Event driven.	Yes
TPL-001-0	All	<b>System Performance Under Normal (No Contingency) Conditions</b>	PA, TPL	System performance under normal conditions	By request – latest annual assessment.	Yes
TPL-002-0	All	<b>System Performance Following Loss of a Single Bulk Electric System Element</b>	PA, TPL	System performance under single contingency	By request – latest annual assessment.	Yes
TPL-003-0	All	<b>System Performance Following Loss of Two or More Bulk Electric System Elements</b>	PA, TPL	System performance under multiple contingencies	By request – latest annual assessment.	Yes
TPL-004-0	All	<b>System Performance Following Extreme Events Resulting in the Loss of Two or More Bulk Electric System Elements</b>	PA, TPL	System performance under extreme contingencies	By request – latest annual assessment.	Yes
VAR-001-1	All, except R5	<b>Voltage and Reactive Control</b>	PSE, TOP	To ensure voltage levels, reactive flows, and reactive resources are monitored, controlled, and maintained within limits in real time to protect equipment and the reliable operation of the Interconnection.	By request – last 12 months of data.	Yes

## **Appendix 2: Confidential Security Sensitive Information**

[This section contains confidential security sensitive information which is not included with the public version, but retained by NERC and the regional organization and is sent privately to the audited entity.]