

**NERC Compliance Enforcement
Program
2005 Program Summary Report**

North American Electric Reliability Council

July 31, 2006

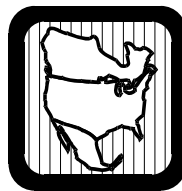


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Executive Summary

NERC's Compliance Enforcement Program is designed to ensure compliance with NERC and regional reliability standards. To accomplish this, NERC monitors those entities whose operations affect the bulk power system and assesses their compliance with its standards. The goal of the program is to ensure that entities comply with NERC and regional standards, and to encourage actions that will correct or prevent violations of these standards. The program places significant emphasis on encouraging good reliability performance by conducting on-site audits of balancing authorities, transmission operators, reliability coordinators, and regions in an effort to identify and resolve compliance issues before they become reliability problems. NERC will only seek to impose penalties and sanctions where appropriate. The objective of the compliance enforcement program is not to impose monetary sanctions; rather it is to encourage compliance with the standards necessary to preserve the reliability of the grid.

The compliance enforcement program is carried out on a regional basis with strong NERC oversight using a variety of methods to monitor and assess compliance with reliability standards. These methods include self-reporting, periodic reporting by NERC of compliance results, compliance audits and spot checks, and investigations of compliance violations. NERC and the regions continually strive to improve the program and identify areas for improvement each year.

This 2005 Compliance Enforcement Program report presents the compliance performance results, observations, and recommendations for improvement. This report also identifies progress that has been made on the recommendations for improvement from the 2004 program.

2005 Compliance Enforcement Program Performance Highlights

NERC saw an increase in the number of violations of reliability standards in 2005 over 2004. NERC identified 329 confirmed violations of its standards in 2005, vs. 318 in 2004. (See Figure 1) Confirmed violations are those where all dispute resolution procedures have been completed or the entity has not disputed the violation within the time allowed to challenge such a finding. Much of this increase resulted from violations of standards that have not been included in the program every year. NERC includes a core set of standards in the Compliance Enforcement Program each year along with a sampling of other standards based on several factors.

At the time this report was published, 98 of the 329 violations have been mitigated. Twelve additional confirmed violations were for standards that were not actively monitored in 2005 but were identified through audits, investigations, or through other means.

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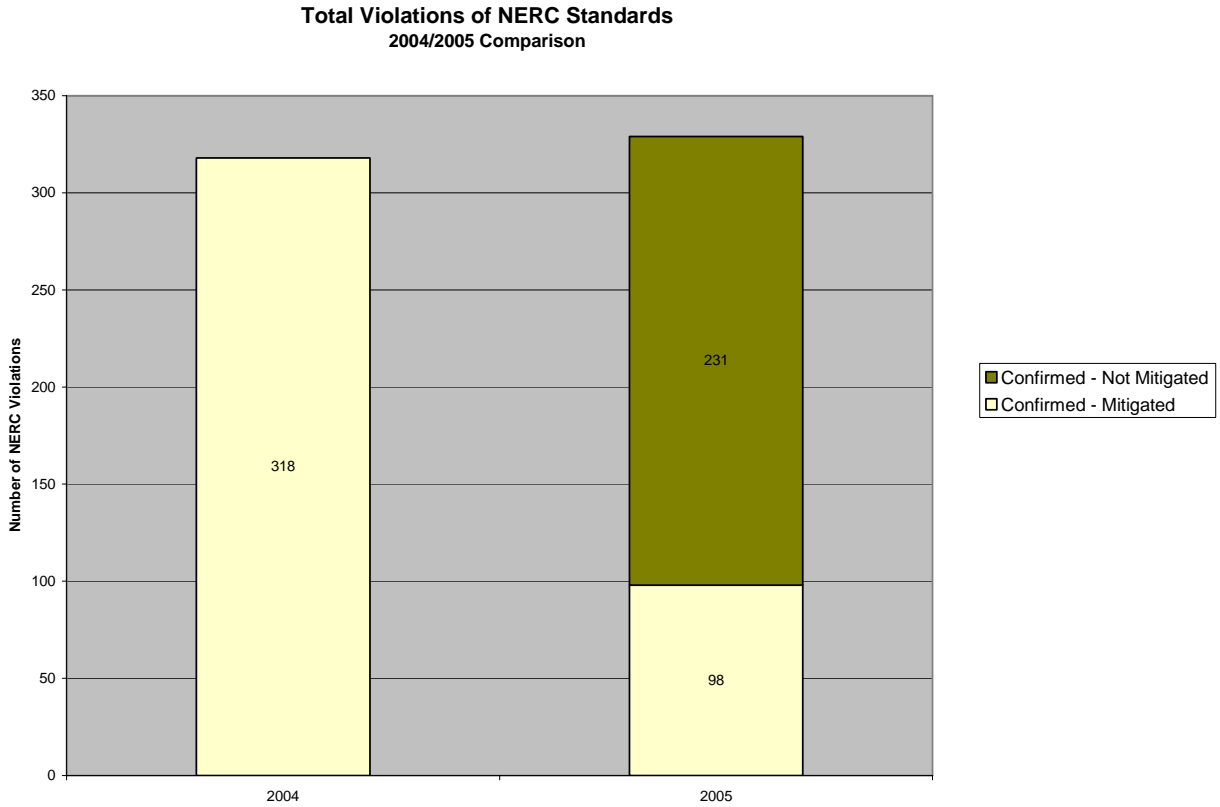


Figure 1

The 2005 program saw a similar performance for those standards that were actively monitored in both 2004 and 2005, i.e., the core set of standards, which represents 80 percent of all actively monitored standards. Figure 2 compares the number of violations by region for 2004 and 2005. In general, when comparing the performance by region, the number of violations experienced during 2005 was similar to the number of violations in 2004.

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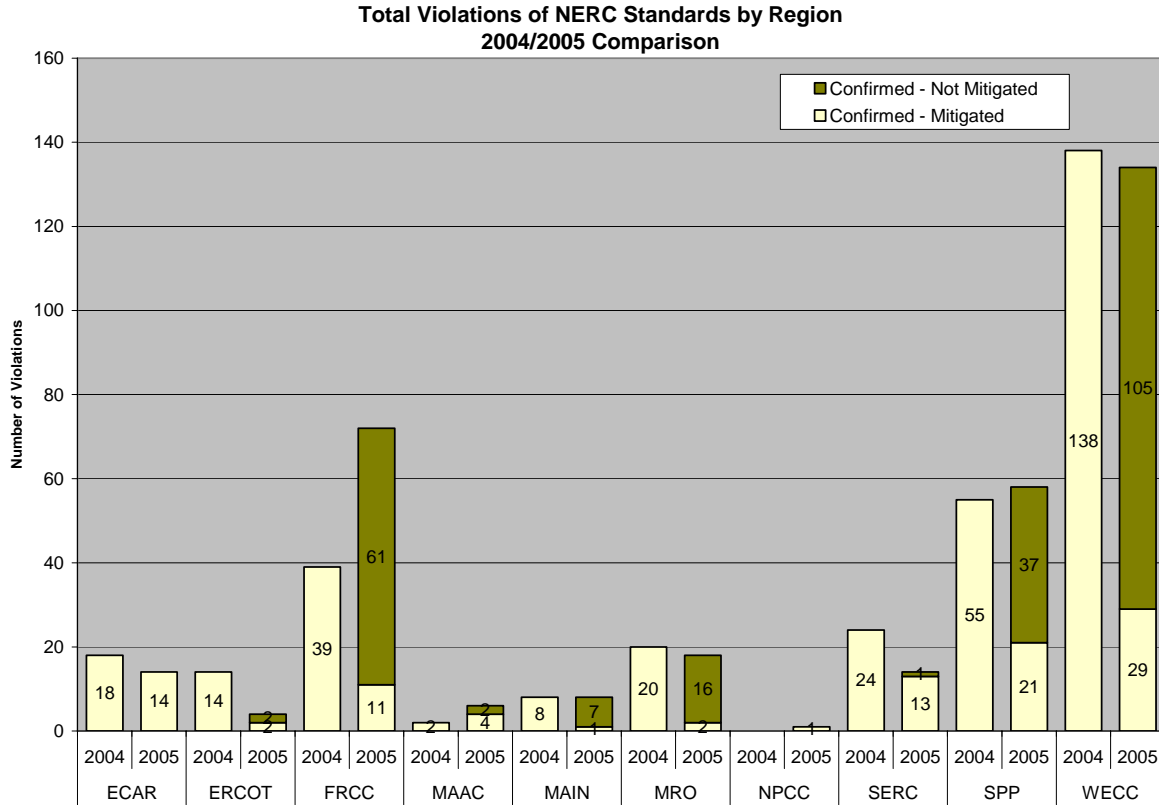


Figure 2

Since there are a varying number of entities assessed in each region, Table 1 is provided to summarize the overall regional compliance percentages. This should establish a more relative comparison of regional performance.

Table 1

NERC 2005 Compliance Enforcement Program
Regional Compliance Performance

REGION	Total in Full Compliance	Level 1	Level 2	Level 3	Level 4	Total Confirmed Violations	% Compliance
ECAR	746	9	4	0	1	14	98
ERCOT	610	3	1	0	0	4	99
FRCC	1132	10	13	9	40	72	94
MAAC	288	0	6	0	0	6	98
MAIN	798	3	5	0	0	8	99
MRO	876	3	5	2	8	18	98
NPCC	266	0	0	0	1	1*	100
SERC	1145	7	2	1	4	14	99
SPP	847	10	12	4	32	58	93
WECC	1907	25	26	27	56	134	93
NERC Totals	8615	70	74	43	142	329	96

*SOL/IROL Violation reported by occurrence, which is not included in the percent compliance calculation.

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Fifty-three percent of all confirmed violations were associated with four standards:

1. Violations of operator certification significantly declined from 143 in 2003 to 103 in 2004 to 79 in 2005.
2. The operator personnel training standard was violated 33 times in 2005, as compared to 23 violations experienced in the last half of 2004, when the standard was first introduced to the compliance program.
3. There were 31 violations of the loss of primary control facility standard, with 14 of these violations being Level 4 violations. This standard, which was first included in the 2004 Compliance Enforcement Program, requires an entity to have a plan for disaster recovery that is independent of its primary control center. In 2004, there were 31 violations, with six at Level 4.
4. Thirty-two violations were reported for the transmission protection system maintenance and testing standard, as compared to 22 violations reported in 2004; this represents a 45 percent increase in violations.

The increased number of violations is partly due to increased attention to these standards during audits and partly the result of changes to the standards that occurred during the implementation of NERC's Version 0 Reliability Standards.

There were no violations of the following NERC standards that were monitored directly by NERC:

1. MOD-011-0 — Regional Steady-State Data Requirements and Reporting Procedures
2. MOD-013-0 — RRO Dynamics Data Requirements and Reporting Procedures
3. MOD-014-0 — Development of Interconnection-Specific Steady State System Models
4. MOD-015-0 — Development of Interconnection-Specific Dynamics System Models
5. PRC-014-0 — Special Protection System Assessment
6. TPL-005-0 — Regional and Interregional Self-Assessment Reliability Reports
7. TPL-006-0 — Assessment Data from Regional Reliability Organizations

There were violations assessed for NERC standard PRC-002-0, Define and Document Disturbance Monitoring Equipment Requirements. However, since there was an appeal to the findings by one of the regions, all compliance information is being withheld until such appeal is resolved.

2005 Vegetation Outage Reporting Results

During 2005, NERC collected vegetation-related transmission outage information in accordance with Reliability Standard *FAC-003-0 — Vegetation Management Program*. There were 36 vegetation-related outages reported for transmission lines at 200 kV and higher. Fifteen of these outages were due to tree contact from within the right-of-way (Category 1).

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NERC began collecting the flows on transmission lines at the time of the tree contact for vegetation outages beginning with the third quarter. Many of the reported outages occurred at flows well below the normal ratings of the line. In fact, six of the nine Category 1 outages reported in the third quarter occurred with flows less than 25 percent of the normal rating. All but one of the outages occurred with flows below the normal rating. A detailed description of each of the vegetation-related outages is provided in the quarterly vegetation management reports posted at <http://www.nerc.com/~comply/>.

Cyber Security Standard Self-Assessments

2005 represents the third year NERC has assessed compliance with the Urgent Action Cyber Security Standard 1200. In 2005, the assessment was conducted for balancing authorities, transmission operators, and reliability coordinators. In previous years, reliability coordinators and control areas were assessed. Aggregated results of the compliance self-assessments demonstrate that the reporting entities are in substantial compliance with the standard and have reported improved performance over last year.

Regional Compliance Enforcement Program Audits

NERC audited the ECAR, FRCC, MAAC, NPCC, and SPP regional compliance enforcement programs in 2005. The purpose of these audits was to evaluate the regions' performance with their approved compliance enforcement program implementation plans. The primary objective of the evaluation is to identify those areas of greatest effectiveness, encourage the continued development of such practices, and determine those areas that require improvement. The process used to audit the regional programs was revised in 2004 to focus on the implementation of the regional compliance processes. Final audit reports and regional responses to audit recommendations are posted at <http://www.nerc.com/~comply/>.

2005 Compliance Enforcement Program Requirements

NERC's 2005 Compliance Enforcement Program was implemented by the regions with the objective of further testing regional and NERC compliance processes, as well as the NERC reliability standards and associated compliance requirements. NERC staff, the regions, and various NERC committees all played a role in this process.

The 2005 Compliance Enforcement program consists of ten regional programs, with NERC providing overall oversight and coordination. The regions monitor their members and others operating within their regions for compliance with the standards. In those cases where the standards apply to the regions, NERC monitors regional compliance with those standards. Some regions have approved processes for applying actual penalties and sanctions for a subset of the standards included in the annual compliance enforcement program, while other regions use simulated enforcement actions.

The reliability standards monitored and the organizations responsible for compliance changed in 2005 with the implementation of the Version 0 Reliability Standards. With the approval of these standards, the standards that applied to control areas and reliability coordinators were replaced by standards that apply to reliability functions that reflect the functional separation that has occurred in the industry. The new functions that were identified in the Version 0 standards included: reliability coordinators, balancing authorities, transmission operators, regional reliability organizations, planning authorities, and transmission planners, among others. NERC

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determined it would be necessary to identify the organizations performing these six critical functions and requested the regions to register entities performing these functions. This activity was completed in March 2005, prior to the implementation of Version 0.

In 2005, NERC began the year actively monitoring compliance with 45 standards based on 18 operating policies and 27 planning standards. By comparison, the 2004 program consisted of 40 standards, including 35 that carried over into the 2005 program representing the core set of standards. Compliance with all reliability standards is expected; however, NERC selects a subset of the body of standards to actively monitor each year.

The Version 0 Reliability Standards became effective on April 1, 2005, and 44 of those standards were actively monitored through the end of the year; these are listed in Appendix A. Some regions included additional standards in their programs. A brief description of each standard, including application and monitoring responsibilities, is provided.

The 2005 compliance enforcement program results demonstrate that the regions and their members are 96 percent in compliance with the reliability standards actively monitored in 2005:

- 329 total violations were reported as confirmed, with corresponding simulated sanctions of about \$626,000 utilizing the current NERC Enforcement Matrix.

NERC requires the regions to report compliance performance statistics in a standardized format. For example, some violations will be reported only by occurrence. Violations that are reported by occurrence cannot have a compliance percentage computed since the opportunities for noncompliance (or compliance) are nearly infinite. For all other violations that occur with a defined time frame, a compliance performance percentage will be computed. To achieve full compliance, a region or entity would need to demonstrate 100 percent compliance with standards included in the compliance calculation and have no violations for those standards reported by occurrence. The performance statistics presented in Appendix B employ this format and methodology.

Some of the regions included regional measures in their 2005 programs. Two regions reported 156 violations of regional measures. In one region, the Qualified Path Unscheduled Flow (USF) Relief, E-tagging Service Availability, and Active Processing of E-tags regional standards incurred repeated violations. However, since additional user training was developed for USF mitigation, and refinements to the USF standard were implanted to filter out insignificant violations, the number of Qualified Path Unscheduled Flow Relief violations was significantly reduced.

2005 Vegetation Outage Reporting Results

During 2005, NERC collected vegetation-related transmission outage information in accordance with NERC Reliability Standard *FAC-003-0 — Vegetation Management Program*. There were 36 vegetation-related outages reported for transmission lines 200 kV and higher, as shown in Figure 3. Fifteen of these outages were due to tree contact from within the right-of-way (Category 1). NERC began collecting the flows on the line at the time of the tree contact for vegetation outages beginning with the third quarter. Many of the outages reported occurred at flows well below the normal ratings of the line. In fact, six of the nine Category 1 outages reported in the third quarter occurred with flows less than 25 percent of the normal rating. All

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but one of the outages occurred with flows below the normal rating. This is indicative of vegetation contact due to growing rather than lines sagging into vegetation. A detailed description of each of the vegetation-related outages is provided in the quarterly vegetation management reports posted at <http://www.nerc.com/~comply/>.

NERC considers outages due to vegetation contacts with concern. With each outage, the region must provide a detailed investigation of the outage event and what mitigating actions were taken. With one exception under investigation at the time of this report, the regions found that the transmission owners were following their vegetation management programs, and in most cases the programs were considered to be adequate. Where deficiencies were identified with an entity's vegetation management program, corrective actions were promptly implemented to avoid related outages in the future.

Some of the reasons for the vegetation-related transmission outages included logging activity, high winds, trees falling from outside of the right-of-way, erosion and unexpected vegetation growth due to record setting rainfall, landowner actions, trees left as an aesthetic screen to preserve wild life habitat, lack of forestry service cooperation to provide adequate access to the right-of-way, failure to communicate findings from aerial inspections, vegetation overlooked during right-of-way inspections, and lines sagging due to very high flows following a major system disturbance.

The types of corrective actions taken to address these failures included:

- More effective and timely communication procedures following aerial inspections.
- Discussions with and education of land owners to gain access to rights-of-way.
- Elimination or trimming of the vegetation that caused the outage, including additional vegetation identified as a potential concern.
- Revised inspection procedures.
- Working with the forestry service to permit better access to perform maintenance.

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2005 Vegetation-Related Transmission Outages

Region	First Quarter		Second Quarter		Third Quarter		Fourth Quarter	
	Category 1 (within ROW)	Category 2 (outside ROW)	Category 1 (within ROW)	Category 2 (outside ROW)	Category 1 (within ROW)	Category 2 (outside ROW)	Category 1 (within ROW)	Category 2 (outside ROW)
ECAR	0	0	1-230 kV; 2-345 kV	0	1-765 kV	0	0	0
ERCOT	0	0	0	0	0	0	0	0
FRCC	0	0	0	0	1-230 kV	0	0	0
MAAC	0	0	0	0	0	0	0	1-230 kV
MAIN	0	0	0	0	0	0	0	
MRO	0	0	0	0	1-230 kV; 1-345 kV	0	0	1-345 kV
NPCC	0	1-230 kV	0	0	0	2-230 kV	0	1-230 kV
SERC	0	1-500 kV	1-230 kV	0	2-500 kV	3-230 kV	0	2-230 kV
SPP	0	0	0	0	1-345 kV	1-<200 kV	0	
WECC	0	3-230 kV	2-500 kV	4-<200 kV 1-230 kV	1-230 kV; 1-500 kV	1-<200 kV; 1-500 kV	0	4-230 kV
Subtotal	0	4-230 kV; 1-500 kV	2-230 kV; 2-345 kV; 2-500 kV	4-<200 kV 1-230 kV	1-765 kV; 3-500 kV; 2-345 kV; 3-230 kV	1-500 kV; 5-230 kV; 2-<200 kV	0	8-230 kV; 1-345 kV
TOTAL	Category 1 (within ROW)				Category 2 (outside ROW)			
	5-230 kV; 4-345 kV; 5-500 kV; 1-765 kV				6-<200 kV; 18-230 kV; 1-345 kV; 2-500 kV			

Figure 3

Figure 4 compares the vegetation-related transmission outages in 2005 with those in 2004. There were 34 vegetation-related outages reported in 2004 compared to 36 in 2005. The vegetation-related outages are exhibited in both categories of outages, from vegetation within the rights-of-way and from vegetation outside of the rights-of-way.

Although the total number of outages in 2005 increased slightly from 2004, the number of outages from within the right-of-way increased from seven in 2004 to fifteen in 2005. If this trend persists, it could pose a major concern to the reliability of the bulk power system. With the recently approved revision to the vegetation management standard (FAC-003-01), these tree contacts will be considered violations of the standard beginning in April 2006.

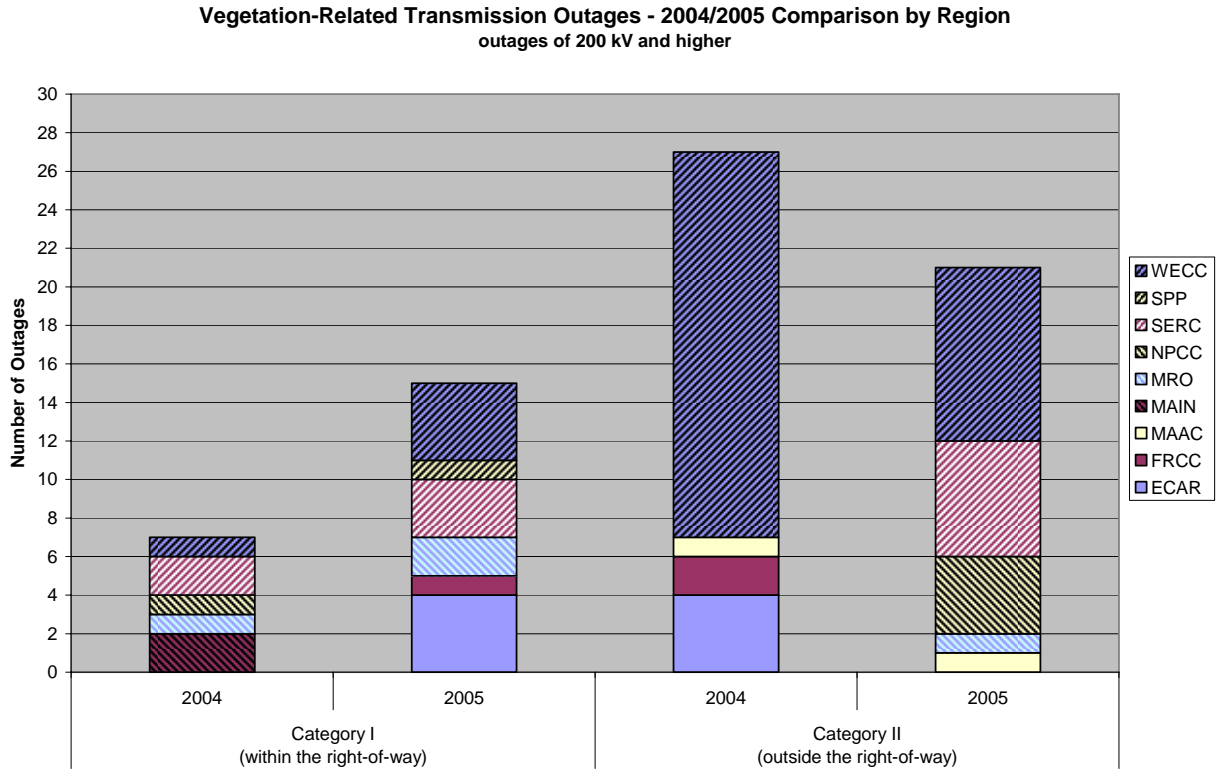


Figure 4

Cyber Security Standard Self-Assessments

2005 represents the third year NERC has assessed compliance with the Urgent Action Cyber Security Standard 1200. In 2005, the assessment was conducted for balancing authorities, transmission operators, and reliability coordinators. In past years, reliability coordinators and control areas were assessed.

Aggregated results of monitoring compliance with this standard demonstrated that the assessed entities are in substantial compliance with the standard and well on their way to full compliance with the standard. NERC received regional aggregated results on March 31, 2006, and will present a confidential report based on these results to the NERC Board of Trustees in July 2006.

NERC recently approved and adopted a permanent cyber security standard, which will become effective starting in June 2006 with an implementation plan that spans four years. The Compliance and Certification Managers Committee will determine how to implement compliance monitoring for this standard in 2006 and 2007.

Regional Compliance Enforcement Program Audits

NERC audited the compliance enforcement programs for ECAR, FRCC, MAAC, NPCC, and SPP. The purpose of these audits was to evaluate the regions' performance with their approved compliance enforcement program implementation plans. The primary objective of the evaluation is to identify those areas of greatest effectiveness, encourage the continued development of such practices, and determine those areas that require improvement. The process used to audit the

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regional programs was revised in 2004 to focus on the implementation of the regional compliance processes.

Some of the audit findings and recommendations include broadening validation processes to increase confidence in self-certification results; enhancing performance reporting processes; expanding internal training programs; revising regional confidentiality agreements; initiating more formal processes, procedures, and rules in regional compliance programs; and conducting more comprehensive compliance audits of members.

Audits of ERCOT and WECC regional compliance programs in 2006 will complete all second cycle regional audits. The audit teams include representatives from the Compliance and Certification Managers Committee (CCMC), the Compliance and Certification Committee, and NERC staff. Final audit reports and regional responses to audit recommendations are posted at <http://www.nerc.com/~comply/>.

Progress with Last Year's Recommendations

The following recommendations were developed in 2004 to be implemented in 2005. Included is a discussion of the progress in 2005 to address these recommendations.

1. The CCMC should work with the Standards Drafting Team (SDT) to refine the vegetation-related transmission outage reporting procedure in the standard to include details surrounding each outage and the actions taken to prevent further outages of this type.

Status: Completed

Specific vegetation-related transmission outage reporting information and details currently collected by the CCMC have been included in the recently approved vegetation standard.

2. The CCMC should refine and streamline NERC 48-hour and quarterly reporting.

Status: Underway

The CCMC continues to refine the compliance performance process. A distributed database reporting process was beta-tested and implemented. A Web-based portal reporting tool will be defined and implemented in 2006 in preparation for reporting as the ERO.

3. The CCMC should formalize a peer review process to assess the significance to bulk power system reliability of reported violations. This process will help the compliance committees identify areas requiring immediate attention and improvement.

Status: Completed

The CCMC completed the formalization of a peer review process. Confidential peer reviews were successfully conducted prior to finalizing each quarterly performance report.

4. The NERC vice president of compliance, in coordination with the CCMC, should publish four quarterly reports disclosing the identity of those entities confirmed to have violated NERC standards, regional standards, or both during 2005. These reports should identify trends and focus on emerging problem areas of standards violations.

Status: Completed

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Four quarterly reports were developed, approved by the Board of Trustees Compliance Committee, and publicly posted on the NERC Compliance Web site.

5. The NERC vice president of compliance, in coordination with the CCMC and the Compliance and Certification Committee (CCC), should continue to develop a tracking system that can be used to monitor the completion of mitigation plans resulting from the compliance program.

Status: Underway

Currently, NERC tracks mitigation plans through the monthly and quarterly performance reporting updating process. In 2006, the use of a Web-based portal will promote more effective mitigation tracking.

6. The CCC should establish policy on enforcement actions, simulated or otherwise, for the 2006 program. This should include assessing the impact of simulated sanctions, determining whether they are sufficient to ensure compliance with reliability standards, and refining the current enforcement process and enforcement penalty matrix.

Status: Completed

NERC, with the initial guidance of the Compliance Penalties and Sanctions Task Group, has developed a detailed ERO Sanction Guidelines. This document was filed with FERC as an appendix to the ERO Application. These guidelines will be used to calculate potential penalties, starting with the fourth quarter of 2005 and continuing through the 2006 NERC Compliance Enforcement Program, to determine any revisions necessary to implement penalties and sanctions as the ERO in 2007.

7. The CCC should complete its work to develop a process to characterize the relative reliability risk of violations of NERC standards.

Status: Completed

The CCC, in conjunction with the CCMC, has identified reliability risk factors for each requirement of the reliability standards. A standards authorization request was created and is in a process that will lead to the development and inclusion of the reliability risk factors in the current reliability standards. These factors are expected to be completed in 2006.

In a similar manner, temporal characteristics have been identified for each requirement of the reliability standards. These factors reflect the timeframes to discover and remedy a violation, and indicate whether such timeframes pose an immediate or long-term risk to the reliability of the bulk power system.

8. The CCC, in conjunction with the CCMC, should develop the compliance enforcement program processes and procedures manual.

Status: Completed

As an integral part of the ERO Application, NERC developed Rules of Procedure for the compliance enforcement program identifying all processes and procedures that shall be followed by the ERO and the regional entities in implementing the NERC Compliance Enforcement Program.

9. The CCC, in conjunction with the CCMC, should work with NERC's Standards Authorization Committee to implement a process to ensure effective compliance input into

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the standards development process. New standards should be effectively field tested when necessary and incorporated into the compliance program.

Status: Partially complete

The vice president and director of compliance, with guidance from the CCMC, recommended new standards are field-tested prior to balloting.

The CCMC has representatives, including NERC staff serving as the drafting team coordinator, on the Standard Drafting Team (SDT) to develop the compliance sections that are missing from various “version” 0 standards. In addition, the CCMC is represented on the violation risk factor and temporal factor standard drafting teams.

10. The CCMC should integrate the cyber security standards into the overall compliance enforcement program.

Status: Underway

The regional compliance managers have requested and obtained completed questionnaires regarding compliance with the 1200 Urgent Action Cyber Security standard. The CCMC is presently determining how to implement the Board of Trustees approved permanent Cyber Security standard in 2006/2007 compliance enforcement programs based on the implementation plan approved with the standard.

11. The NERC compliance staff, in conjunction with the CCMC, should review the regional 2005 compliance enforcement programs to identify opportunities to improve and promote consistency with key compliance elements.

Status: Completed

The CCMC has reviewed each program and developed a summary table outlining how each region is addressing various key compliance elements. This table was shared with the NERC Board of Trustees Compliance Committee for information. The delegation agreements developed with the regional entities will further define consistency among the regional programs.

Program Observations

NERC is responsible for overseeing the regional compliance programs. Each region was asked to submit a completed questionnaire with its 2005 program results. The questionnaire helps to identify issues, problems, and areas for improvement for the NERC Compliance Enforcement Program. A review of the regions’ responses resulted in the following observations.

Implementation Plan

Prior to implementing its compliance enforcement program, each region is required to submit its annual compliance enforcement program implementation plan to NERC for approval. NERC reviews these plans for consistency with the overall program requirements and objectives, approves the plans, and posts them. Revisions to the plans must be submitted by the regions to NERC prior to implementing a change. The one major change to all regional programs was the incorporation of the Version 0 Reliability Standards beginning April 1, 2005.

Communications

Half of the NERC regions conducted workshops that addressed the NERC compliance enforcement program or functional registration requirements for the Version 0 standards. The

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workshops enabled the regions to effectively present an overview of their compliance enforcement program, their reporting requirements, and provide a forum to share program experiences.

Regions that did not conduct compliance workshops used other means to communicate program information with their members. Program information was generally disseminated at regional committee meetings, and electronically through a regional Web site or portal. All regions indicated that they would conduct compliance enforcement program workshops in 2006, except for one region that will conduct an electronic rollout. Many of these activities will focus on the formation of the electric reliability organization (ERO), the 2007 Compliance Enforcement Program under the ERO, and or the new NERC cyber security standard.

Program Changes

Each region was asked to report the changes implemented in the 2005 compliance program. The following changes were implemented:

- Incorporated the monitoring of Version 0 reliability standards.
- Clarified reporting and disclosure processes within the regional compliance process.
- Initiated the posting of regional criteria violations.
- Streamlined the regional compliance audit process and formalized some general processes.
- Improved the 48-hour standard violation reporting process.
- Expanded a regional Web-based application for reporting and tracking all 2005 compliance enforcement program requirements.
- Conducted compliance audits right after readiness audits to minimize the impact on the entity being audited.
- Added staff in the middle of the year.
- Required all members to use a Web-based portal system for all compliance submittals.
- Revised quarterly and monthly update forms for reporting of 2005 violations.
- Expanded the request for mitigation plans to include violations of standards that are a part of the region's enforceable compliance program.
- Improved the processes associated with mitigation plan tracking.
- Implemented the NERC quarterly compliance results reporting process.

In 2006, some regions indicated that they intend to implement the following improvements within their respective compliance enforcement programs:

- Implementation of a tracking program to improve follow-up on mitigation plans and posting.
- Development and use of an auditor's guide for each standard for use during on-site compliance audits.

Validation Processes

The regions focused on verifying the validity and completeness of self-certifications in 2005. NERC had requested the regions to focus on enhanced verification of self-certifications. Overall, the application of the regional validation processes continues to increase in depth and breadth. Verifications included, but were not limited to:

- Complete on-site audits of all standards.
- Random member audits.
- Spot-checks to supplement audits.
- Audits of electrical facility ratings standards.
- Real-time underfrequency load shedding (UFLS) survey.

In general, all regions completed the audits that were planned in 2005. Several regions indicated good correlation between the audit results and the self-certification submittals. Implementing comprehensive validation processes continues to elevate the level of confidence in using self-certifications.

Compliance Performance Reporting

The *NERC Guidelines for Reporting and Disclosure* continues to be successfully implemented in 2005. All regions are disclosing confirmed and unconfirmed violations to NERC [with the exception of SERC for non-48 hour requirements]. Quarterly compliance performance reports are developed and posted at <http://www.nerc.com/~comply/>.

In order to properly verify the accuracy of the quarterly report, the regions initially provide their quarterly reporting information to NERC by the last working day of the month after the reporting quarter ends. NERC then compiles a formatted report and distributes it to the regions for their review. The regions then provide additional data/corrections for NERC to incorporate into a full quarterly report that serves as the basis for a CCMC peer review. Upon completion of the peer review, NERC finalizes the report and sends it to the board-level Compliance Committee for approval. Once approved by the Compliance Committee, the report is sent to the regional managers for a final accuracy check and then posted a week later.

A monthly compliance performance report is also prepared and discussed at the monthly board Compliance Committee meeting. These reports provide up-to-date information regarding confirmed violations, unconfirmed violations, probable violations that are identified in readiness audits, and the status of mitigation of violations. Included in these reports are trending graphs that assist in the monitoring of progress of all outstanding violations.

The Compliance and Certification Managers Committee also conducts a peer review of all reported violations in all regions as part of the quarterly performance reporting process. The purpose of the peer review is to promote consistency across regional programs and produce clear and concise assessments of potential bulk power system reliability impacts. In order to conduct these peer reviews, each committee member has signed a NERC confidentiality agreement.

The compliance performance reporting process and corresponding reporting forms continue to evolve to meet the needs of the *NERC Guidelines for Reporting and Disclosure* and the

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Compliance Committee. The changes implemented in 2005 helped to produce more accurate and informative reports. However, the present system is inadequate to allow the ERO to produce meaningful, accurate reports quickly due to the inefficiencies of the manual processes in use and NERC will develop an improved reporting tool in 2006.

NERC is currently evaluating various Web-based portal reporting and tracking systems to interface electronically with regional database collection systems. These robust systems will streamline the reporting process, improve the accuracy of results, and promote a reporting process that is linear. All regions have expressed their support for this type of system, which is expected to be available in 2007.

Regional Program Strengths

Each region was asked to identify the top three strengths of its compliance enforcement program. These responses, presented here in no particular order, included:

- Member's acceptance of the new NERC reliability standards and registration to the functions identified in the new standards.
- Expansion of the audit program to include the review of all NERC reliability standards and an in-depth audit of electrical facility standards.
- Independent determination of compliance; maintaining a streamlined compliance process that precludes the need for committee reviews or stakeholder involvement.
- Effective access to data to validate compliance with standards.
- Clear communications with members.
- Member commitment to be compliant with NERC reliability standards, to operate a reliable grid, and to increase consistency of all compliance audits.
- Staff expertise.
- An established mandatory enforceable compliance program.
- Relationship with members.
- Use of Web-based portals for reporting, tracking, and communication.

Regional Program Areas for Improvement

Each region was asked to identify areas that could be improved or enhanced. The responses included:

- Enhancement of compliance enforcement program to incorporate all new compliance requirements resulting from the establishment of the ERO.
- Continue to improve verification processes of self-certifications through spot checks, audits, peer reviews, and document/data reviews.
- Creation and enhancement of electronic database processes.
- Completion of auditor's guide for compliance audits.
- Improve participation of independent power producers.

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- Strengthen audit and appeals processes.
- Improve new member orientation, including training on Web-based portal.
- Identify and hire additional staff to carry out the responsibilities outlined in regional delegation agreements with the ERO.
- Improve timeliness of reports sent to NERC, and confirmation letters for reported violations.
- Review each region's compliance program for examples of excellence.
- Improved regional tracking systems.
- Timeliness of data submittals by some entities.
- Identification of the standards that individual owners, operators, users of the bulk power system are responsible to comply with.
- Completion of recommendations identified in NERC compliance enforcement program audits.

Problems Encountered

In general, the regions indicated that they did not encounter any significant problems during the year. The transition to the new NERC reliability standards did not present any significant problems to the regions or the members. However, a few regions indicated that some difficulties were experienced in the following areas:

- Some confusion arose during reliability function registration when identifying the delegation of responsibilities and/or authorities between transmission operators and transmission owners.
- The quarterly reporting process to NERC is not user friendly and presented some challenges for the regions. NERC is currently evaluating various Web-based portal tools to develop and implement a more efficient compliance reporting and tracking system.
- Delayed self-certification submittals from a few entities. However, a late data procedure implemented in 2005 has resolved this issue.

Appeals

Four regions used their appeals processes to successfully resolve disputes in their regional compliance enforcement programs. There were ten appeals in 2005; this included two appeals involving violations of standards included in a regional enforceable compliance program. Four of the appeals overturned the original assessment of noncompliance and the findings of noncompliance were subsequently rescinded. One appeal is still in the appeals process.

Staffing Requirements

All regions indicated that staffing levels would be assessed during 2006 to determine the requirements needed to meet expected responsibilities starting in 2007. Most regions anticipate the need for additional staff to shoulder the regional entity's responsibilities associated with the following:

- Activities related to the formation of the ERO, associated delegation agreements, and FERC regulations.

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- The requirement to conduct periodic audits of all owners, operators, and users, of the bulk power system.
- The monitoring of new reliability standards, including cyber security and vegetation management.
- The expanded functional registration of entities and corresponding monitoring and assessment of reliability standards.
- Enhanced compliance program tracking activities.
- Performance reporting and disclosure requirements.
- Application of ERO Sanction Guidelines.
- Compliance with the ERO Rules of Procedure.

Transmission Loading Relief Investigations

An integral part of the compliance enforcement program is the investigation of transmission loading relief (TLR) procedures (or equivalent transmission loading relief procedures in ERCOT or WECC) that are implemented by reliability coordinators within NERC. The Operating Committee has requested that NERC compliance staff conduct routine investigations of significant events, such as TLR Level 5. The staff investigated 31 events that occurred in 2005. These investigations identified lessons learned, assessed reliability impacts, and evaluated fairness in implementation. These reports are posted at <http://www.nerc.com/~comply/>.

Recommendations

The following recommendations were derived from the 2005 program and will be considered for implementation in 2006. They are presented below, in no particular order of importance.

1. NERC should develop and implement a robust Web-based portal reporting and tracking system, which interfaces with regional electronic database collection systems, to streamline compliance reporting and tracking.
2. The regions that do not have an electronic compliance database system should put one in place to interface with a NERC Web-based portal reporting and tracking system.
3. NERC should apply the ERO Sanction Guidelines to violations that occur during the 2006 compliance enforcement program to gain experience and to fine-tune the guidelines prior to final acceptance by the ERO and the FERC.
4. The regions should continue to register all owners, operators, and users of the bulk power system and determine which standard requirements apply to such entities.
5. The CCMC, through its participation on the SDT, should continue to assist the NERC standards program to complete the work to include compliance elements in standards that are missing such elements.
6. The SAC, CCC, and CCMC should establish a formal process to develop the compliance administration elements and implementation plans of new standards.

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7. The CCMC, in conjunction with NERC compliance staff, should identify which new standards should be incorporated into the 2006 and 2007 compliance enforcement programs.
8. The CCMC should identify how the permanent cyber security standard should be implemented in the 2007 compliance enforcement program.

Actively Monitored Standards Beginning April 1, 2005		
Standard Number	Title	Requirement(s)
Resource and Demand Balancing		
BAL-001-0	Real Power Balancing Control Performance	1,2
BAL-002-0	Disturbance Control Performance	4
Emergency Preparedness and Operations		
EOP-001-0	Emergency Operations Planning	4,5
EOP-002-0	Capacity and Energy Emergencies	2,3,9
EOP-005-0	System Restoration Plans	1,2
EOP-008-0	Plans for Loss of Control Center Functionality	1
EOP-009-0	Documentation of Blackstart Generating Unit Test Results	1,2
Facilities Design, Connections and Maintenance		
FAC-001-0	Facility Connection Requirements	1,2,3
FAC-003-0	Vegetation Management Program	1,2
FAC-005-0	Electrical Facility Ratings for System Modeling	1,2
Interchange Scheduling and Coordination		
INT-001-0	Interchange Transaction Tagging	2,4
Interconnection Reliability Operations and Coordination		
IRO-001-0	Reliability Coordination – Responsibilities and Authorities	3
IRO-004-0	Reliability Coordination – Operations Planning	1,2,3
IRO-006-0	Reliability Coordination – Transmission Loading Relief	1,3,4,5
Modeling, Data, and Analysis		
MOD-010-0	Steady-State Data for Transmission System Modeling and Simulation	1,2
MOD-011-0	Regional Steady-State Data Requirements and Reporting Procedures	1,2
MOD-012-0	Dynamics Data for Transmission System Modeling and Simulation	1,2
MOD-013-0	RRO Dynamics Data Requirements and Reporting Procedures	1,2
MOD-014-0	Development of Interconnection-Specific Steady State System Models	1,2
MOD-015-0	Development of Interconnection-Specific Dynamics System Models	1,2
MOD-016-0	Actual and Forecast Demands, Net Energy for Load, Controllable DSM	1,2
Personnel Performance, Training, and Qualifications		

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Actively Monitored Standards Beginning April 1, 2005		
Standard Number	Title	Requirement(s)
PER-001-0	Operating Personnel Responsibility and Authority	1
PER-002-0	Operating Personnel Training	1,2,3,4
PER-003-0	Operating Personnel Credentials	1
PER-004-0	Reliability Coordination – Staffing	1,2
Protection and Control		
PRC-002-0	Define and Document Disturbance Monitoring Equipment Requirements	1,2
PRC-004-0	Analysis and Reporting of Transmission Protection System Misoperations	1,2
PRC-005-0	Transmission Protection System Maintenance and Testing	1,2
PRC-007-0	Assuring Consistency with Regional UFLS Programs	1,2,3
PRC-008-0	Underfrequency Load Shedding Equipment Maintenance Programs	1,2
PRC-009-0	UFLS Performance Following an Underfrequency Event	1,2
PRC-011-0	UFLS System Maintenance and Testing	1,2
PRC-014-0	Special Protection System Assessment	1,2,3
PRC-016-0	Special Protection System Misoperations	1,2,3
PRC-017-0	Special Protection System Maintenance and Testing	1,2
Transmission Operations		
TOP-003-0	Planned Outage Coordination	1
TOP-005-0	Operational Reliability Information	1,2
TOP-007-0	Reporting SOL and IROL Violations	1,2,4
Transmission Planning		
TPL-001-0	System Performance Under Normal Conditions	1,2,3
TPL-002-0	System Performance Following Loss of a Single BES Element	1,2,3
TPL-003-0	System Performance Following Loss of Two or More BES Elements	1,2,3
TPL-004-0	System Performance Following Extreme BES Events	1,2
TPL-005-0	Regional and Interregional Self-Assessment Reliability Reports	1,2,3
TPL-006-0	Assessment Data from Regional Reliability Organizations	1

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Appendix B

STANDARD		Totals			
		Total in Full Compliance	Total Violations	Total percent in Full Compliance	Total Penalties
BAL-001-0	Real Power Balancing Control Performance	1770	19	99%	\$16,929
BAL-002-0	Disturbance Control Performance	210	1	99%	\$2,000
EOP-001-0	Emergency Operations Planning	147	8	94%	\$10,000
EOP-002-0	Capacity and Energy Emergencies		0		\$0
EOP-005-0	System Restoration Plans	140	17	88%	\$21,000
EOP-008-0	Plans for Loss of Control Center Functionality	135	31	81%	\$72,243
EOP-009-0	Documentation of Blackstart Generating Unit Test Results	153	6	96%	\$12,000
FAC-001-0	Facility Connection Requirements	167	11	93%	\$11,400
FAC-003-0	Vegetation Management Program	670	4	99%	\$3,000
FAC-005-0	Electrical Facility Ratings for System Modeling	405	5	98%	\$0
INT-001-0	Interchange Transaction Tagging	55	2	96%	\$0
IRO-001-0	Reliability Coordination – Responsibilities and Authorities	32	0	100%	\$0
IRO-004-0	Reliability Coordination – Operations Planning		0		\$0
IRO-006-0	Reliability Coordination – Transmission Loading Relief		0		\$0
MOD-010-0	Steady-State Data for Transmission System Modeling and Simulation	462	1	99%	\$0
MOD-012-0	Dynamics Data for Transmission System Modeling and Simulation	353	1	99%	\$0
MOD-016-0	Actual and Forecast Demands, Net Energy for Load, Controllable DSM	135	0	100%	\$0
PER-001-0	Operating Personnel Responsibility and Authority	149	8	94%	\$1,000
PER-002-0	Operating Personnel Training	139	33	80%	\$31,500
PER-003-0	Operating Personnel Credentials	1531	79	95%	\$377,269
PER-004-0	Reliability Coordination – Staffing	62	0	100%	\$0
PRC-004-0	Analysis and Reporting of Transmission Protection System Misoperations		0		\$0
PRC-005-0	Transmission Protection System Maintenance and Testing	170	32	83%	\$21,688
PRC-007-0	Assuring Consistency with Regional UFLS Programs	208	20	91%	\$5,000
PRC-008-0	Underfrequency Load Shedding Equipment Maintenance Programs	211	18	92%	\$7,000

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PRC-009-0	UFLS Performance Following an Underfrequency Event		0		\$0
PRC-011-0	UVLS System Maintenance and Testing	98	3	97%	\$4,000
PRC-016-0	Special Protection System Misoperations		0		\$0
PRC-017-0	Special Protection System Maintenance and Testing	181	6	96%	\$10,000
TOP-003-0	Planned Outage Coordination	128	0	100%	\$0
TOP-005-0	Operational Reliability Information	181	1	99%	\$2,000
TOP-007-0	Reporting SOL and IROL Violations		4		\$16,057
TPL-001-0	System Performance Under Normal Conditions	183	2	98%	\$0
TPL-002-0	System Performance Following Loss of a Single BES Element	181	5	96%	\$0
TPL-003-0	System Performance Following Loss of Two or More BES Elements	178	8	95%	\$2,000
TPL-004-0	System Performance Following Extreme BES Events	181	4	97%	\$0
		8615	329	96%	\$626,086