

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

NERC Compliance Enforcement Program

2006 Program Summary Report

June 6, 2007

TABLE OF CONTENTS

Executive Summary	1
<i>2006 Compliance Enforcement Program Performance Highlights.....</i>	<i>1</i>
2006 Compliance Enforcement Program Requirements.....	4
<i>Regional Reporting Requirements</i>	<i>4</i>
2006 Vegetation Outage Reporting Results.....	5
Regional Compliance Enforcement Program Audits	8
Progress with 2005 Program Summary Report Recommendations	9
Regional Compliance Program Observations	10
<i>Implementation Plan.....</i>	<i>10</i>
<i>Communications</i>	<i>10</i>
<i>Program Changes</i>	<i>10</i>
<i>Validation Processes.....</i>	<i>11</i>
<i>Compliance Performance Reporting</i>	<i>11</i>
<i>Regional Program Strengths.....</i>	<i>11</i>
<i>Regional Program Areas for Improvement.....</i>	<i>14</i>
<i>Problems Encountered.....</i>	<i>15</i>
<i>Noncompliance Assessments and Enforcement Actions Taken</i>	<i>15</i>
<i>Appeals.....</i>	<i>17</i>
<i>Staffing Requirements</i>	<i>17</i>
<i>Transmission Loading Relief Investigations.....</i>	<i>18</i>
Recommendations	19

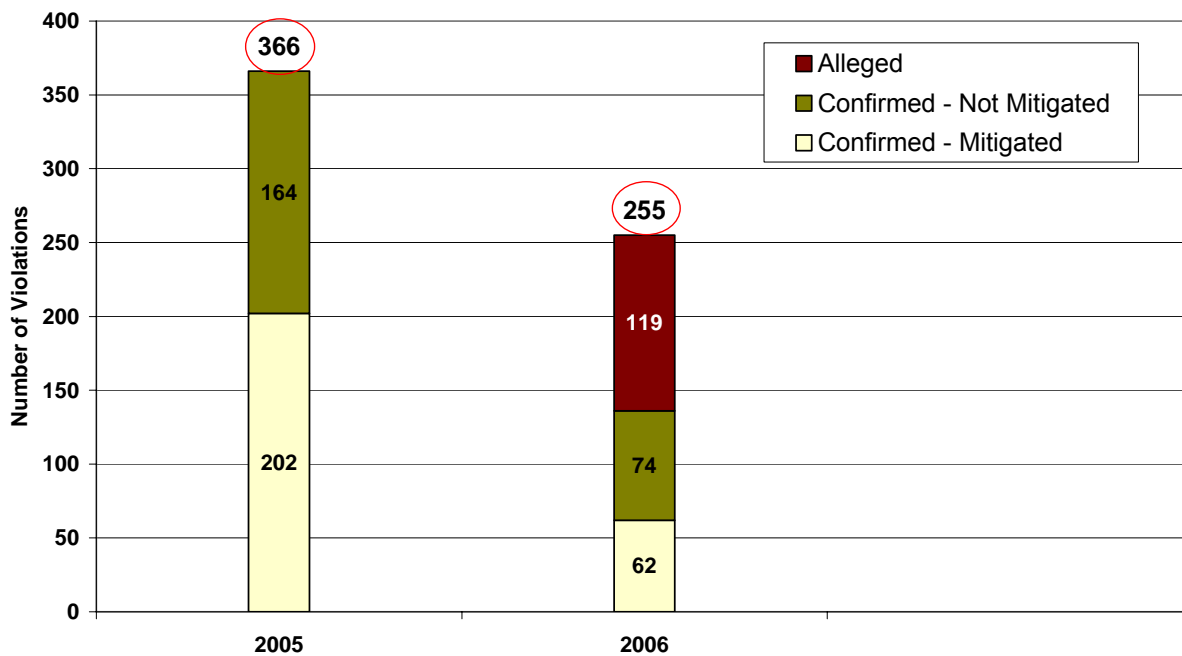
EXECUTIVE SUMMARY

2006 Compliance Enforcement Program Performance Highlights

The 2006 Compliance Enforcement Program marks the final year in which the compliance program was implemented as a voluntary program. The eight regions were very active in performing their compliance duties and in focusing their attentions on developing the 2007 Compliance Monitoring and Enforcement Program, filed with the Federal Energy Regulatory Commission (FERC) on November 30, 2006.

Each year NERC includes a core set of standards in the Compliance Enforcement Program along with a sampling of other standards. NERC identified 255 violations of its standards in 2006, versus 366 in 2005. This represents a 96.5 percent compliance rate with the reliability standards actively monitored in 2006, a slight improvement in performance over 2005. Additionally, at the time this report was prepared, 62 of the 255 violations had been mitigated while 119 violations remain alleged (unconfirmed).

Figure 1 — Total Violations of NERC Standards between 2005 and 2006



The 2006 program saw an 18 percent reduction in the number of violations for those standards that were actively monitored in both 2005 and 2006, i.e., the core set of standards, which represents 94 percent of all actively monitored standards in 2006.

Executive Summary

Due to the varying number of entities assessed in each region, an overall regional compliance percentage establishes a relative comparison of regional performance. Table 1 summarizes the overall regional compliance percentages.

Table 1 — NERC 2006 Compliance Enforcement Program Regional Compliance Performance

Region	Total in Full Compliance	Level 1	Level 2	Level 3	Level 4	Total Confirmed and Alleged Violations*	% Compliance
Electric Reliability Council of Texas, Inc.	426	2	0	0	2	4	99.0
Florida Reliability Coordinating Council	780	4	6	6	57	73	91.4
Midwest Reliability Organization	464	2	4	2	0	8	98.3
Northeast Power Coordinating Council	275	0	5	0	1*	6	97.8
ReliabilityFirst Corporation	673	0	5	3	8	16	97.7
SERC Reliability Corporation	1,434	5	0	0	0	5	99.6
Southwest Power Pool	1,215	7	9	7	4	27	97.8
Western Electricity Coordinating Council	2,000	39*	29	10	38*	116	94.7
NERC Totals	7,267	59	58	28	110	255	96.6

Over two thirds of all NERC violations were associated with six standards.

- PER-003-0 — Operating Personnel Credentials
 - Remains high at 66, although it has declined from 79 in 2005. These violations are mainly attributable to small entities.
- PRC-005-1 — Transmission and Generation Protection System Maintenance and Testing
 - 30 violations reported, similar to the 32 violations reported in 2005. Twenty-seven of these violations were not documentation related.
- PRC-007-0 — Assuring Consistency with Regional UFLS Program Requirements
 - 27 violations — 20 violations had the correct amount of load shedding but not distributed at the expected trip points.
- EOP-008-0 — Plans for Loss of Control Center Functionality
 - 24 violations reported, with 15 of these violations being Level 3 and five at Level 4. This standard, which was first included in the 2004 program, requires an entity to have a plan for disaster recovery that is independent of its primary control center. In 2005, there were 31 violations, with fourteen at Level 4.

* Includes violations reported by occurrence.

Executive Summary

- PER-002-0 — Operating Personnel Training
 - 16 violations, approximately half of the violations reported in 2005.
- PRC-008-0 — Underfrequency Load Shedding Equipment Maintenance Programs
 - 15 violations — 11 not documentation related.

When including the SPS and undervoltage load shedding maintenance standards, there were 51 total violations of maintenance standards in 2006. Forty-one of these violations were not documentation related and were the result of entities falling behind on their approved maintenance schedules.

The regions were requested to assess the actual or potential reliability impact that all violations, when viewed in the aggregate, may have on the bulk power system. The following preliminary regional assessment summaries do not identify any significant impacts.

- ERCOT Minimal impact on bulk power system reliability; violations reported involved mainly small entities or documentation issues; no major concerns in the aggregate.
- FRCC Minimal to moderate bulk power system impact; system operator certification violations are generally associated with small entities, relay maintenance deficiencies could perhaps pose a moderate impact. However, the probability of significant relay failures is likely low and thus presents a relatively low risk.
- MRO Minimal system reliability impact; there were a number of administrative-type violations; current underfrequency load shedding should not significantly impact reliability.
- NPCC Minimal system reliability impact; violations in three geographic areas, all violations have been mitigated quickly even if still in compliance process.
- RFC Minimal system reliability impact; one entity had five violations. However, due to the size of the entity and the nature of the violations there is only a minimal impact on the bulk power system, two other violations occurred while working under an accepted mitigation plan, while some other violations were due to a lack of documentation.
- SERC Minimal system reliability impact; this is due to geographic locations, the size of the entities, and that the majority of the violations are documentation related.
- SPP Minimal to moderate bulk power system impact; the combination of relay maintenance violations at two entities serving the majority of load in portions of one state could be a concern, however both mitigation plans are in effect and are being monitored.
- WECC Minimal system reliability impact; three standards experienced a large number of violations although the violations seem to be spread evenly throughout the WECC region, there were many documentation-related violations, mitigation plans will be scrutinized more closely by WECC.

2006 COMPLIANCE ENFORCEMENT PROGRAM REQUIREMENTS

Each year NERC, in conjunction with the regions, determines a subset of reliability standards that are included in the annual implementation plan carried out in each region. NERC and the regions make this determination by reviewing the past three-year's implementation plans and their compliance results. This subset of reliability standards is often referred to as the actively monitored standards (or program standards) and can be found in Appendix A. The annual implementation plan for each region requires that each entity responsible for complying with one of these reliability standards must self certify its compliance with the reliability standard and submit that self certification to the region for review.

The result of the 2006 Compliance Enforcement Program demonstrates that the regions and their members are 96.5 percent compliant with the reliability standards actively monitored in the 2006 program.

Utilizing the current NERC Enforcement Matrix and applying it to the 255 total violations reported, NERC would have computed penalties of approximately \$769,259 on the entities found in violation.

Regional Reporting Requirements

NERC requires the regions to report compliance performance statistics in a standardized format. For example, some violations are only reported by occurrence. Violations reported by occurrence cannot have a compliance percentage computed since the opportunities for noncompliance (or compliance) are nearly infinite. NERC does compute a compliance performance percentage for all other violations that occur with a defined period. 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.

Upon consideration of the FERC request to classify regional fill-in-the-blank standards as pending, NERC did not assess any violations of the following standards:

1. MOD-014-0 — Development of Interconnection-Specific Steady State System Models
2. MOD-015-0 — Development of Interconnection-Specific Dynamics System Models
3. PRC-003-0 — Regional Procedure for Transmission Protection System Misoperations
4. PRC-012-0 — Special Protection System Review Procedure
5. PRC-013-0 — Special Protection System Database
6. TPL-005-0 — Regional and Interregional Self-Assessment Reliability Reports
7. TPL-006-0 — Assessment Data from Regional Reliability Organizations

Some of the regions included regional measures in their 2006 programs. Two regions reported 85 violations of regional measures.

2006 VEGETATION OUTAGE REPORTING RESULTS

On February 7, 2006, the NERC Board of Trustees adopted version 1 of standard FAC-003 — *Transmission Vegetation Management Program*. Since the effective date of the version 1 standard is April 7, 2006, NERC compliance modified the 2006 Compliance Enforcement Program by replacing version 0 of this standard with the revised standard. As a result, the vegetation-related transmission outages that occurred in the second, third, and fourth quarters of 2006 are reported in accordance with standard FAC-003-1.

The revised standard requires that each outage is categorized as one of the following:

- Category 1 Grow-ins: Outages caused by vegetation growing into lines from vegetation inside and/or outside of the right-of-way.
- Category 2 Fall-ins: Outages caused by vegetation falling into lines from inside the right-of-way.
- Category 3 Fall-ins: Outages caused by vegetation falling into lines from outside the right-of-way.

All Category 1 and 2 outages are now considered violations of NERC standard FAC-003-1, with corresponding levels of noncompliance defined in the standard. Reporting these violations is handled separately as part of the NERC performance reporting process. Category 3 outages are not considered violations of NERC standard FAC-003-1.

During 2006 there were 17[†] vegetation-related outages reported for transmission lines at 200 kV and higher. Nine of these outages were due to vegetation contact from vegetation grow-ins from within the right-of-way (Category 1). The average flow at the time of these grow-in outages was 23 percent of the normal ratings of the line. NERC provides a detailed description of each of the vegetation-related outages in the [quarterly vegetation management reports](#) posted on the NERC Web site.

Some types of corrective actions taken to address these outages included:

- Removal of additional danger trees.
- The addition of more staff to a work crew.
- Review of the inspection process.
- Increase of line patrols.
- The hiring of a consultant to analyze processes contained in the program.

Table 2 summarizes the number of transmission outages by voltage level and category for all four quarters of 2006. The outages listed in Table 2 for the first quarter of 2006 have been adjusted to reflect the reporting requirements of FAC-003-1.

[†] Vegetation-related transmission outages reported during the first quarter of 2006 have been adjusted to reflect the reporting requirements of FAC-003-1.

Table 2 — 2006 NERC Vegetation-related Transmission Outage Statistics

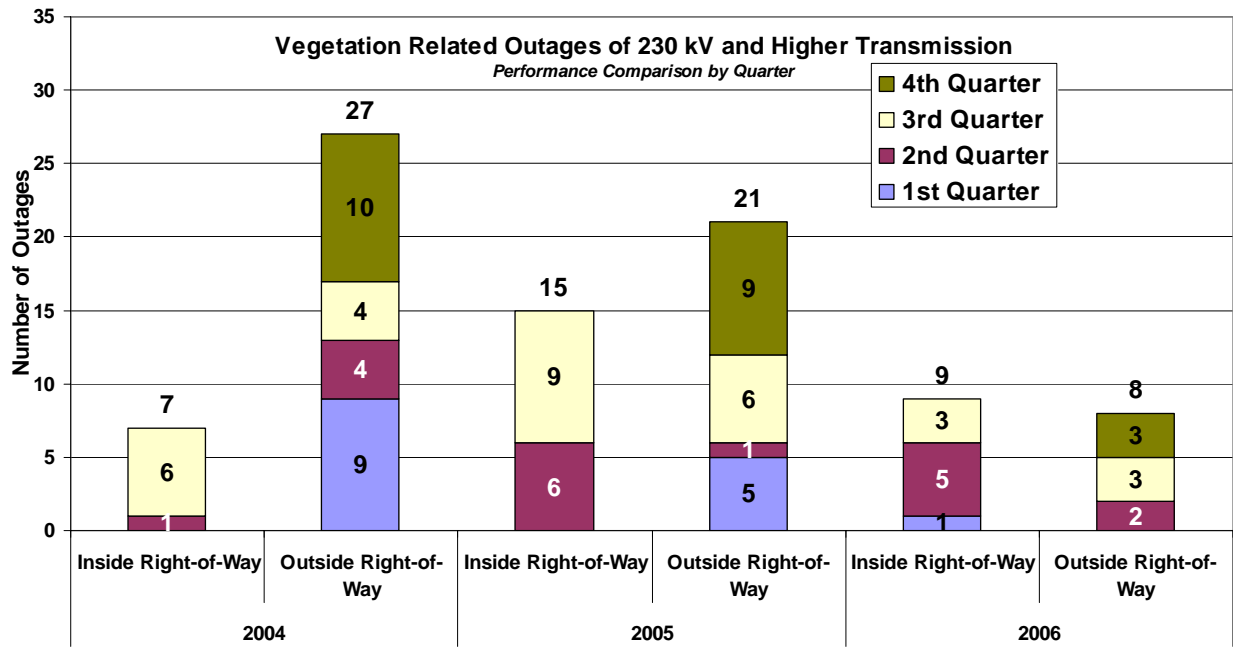
Region	First Quarter Adjusted			Second Quarter			Third Quarter			Fourth Quarter		
	Category 1	Category 2	Category 3	Category 1	Category 2	Category 3	Category 1	Category 2	Category 3	Category 1	Category 2	Category 3
	GROW-INS (inside/ outside ROW)	FALL-INS (inside ROW)	FALL-INS (outside ROW)	GROW-INS (inside/ outside ROW)	FALL-INS (inside ROW)	FALL-INS (outside ROW)	GROW-INS (inside/ outside ROW)	FALL-INS (inside ROW)	FALL-INS (outside ROW)	GROW-INS (inside/ outside ROW)	FALL-INS (inside ROW)	FALL-INS (outside ROW)
ERCOT	0	0	0	0	0	0	0	0	0	0	0	0
FRCC	1-230 kV	0	0	0	0	0	0	0	0	0	0	0
MRO	0	0	0	0	0	0	0	0	0	0	0	0
NPCC	0	0	0	0	0	1-230 kV		0	0	0	0	0
RFC	0	0	0	0	0	0	1-345 kV	0	0	0	0	2-230 kV
SERC	0	0		1-230 kV	0	1-230 kV	0	0	2-230 kV	0	0	0
SPP	0	0	0	1-345 kV	0	0	0	0	0	0	0	0
WECC	0	0	2<200 kV	2-230 kV 1-500 kV	0	0	2-230 kV	0	1-230 kV 4-<200 kV	0	0	1-230 kV 14-<200 kV
Subtotal	1-230 kV	0	2-<200 kV	3-230 kV 1-345 kV 1-500 kV	0	2-230 kV	2-230 kV 1-345 kV	0	3-230 kV 4-<200 kV	0	0	3-230 kV 14-<200 kV
TOTAL	Category 1 (Grow-ins inside/outside ROW) 6-230 kV; 2-345kV; 1-500 kV			Category 2 (Fall-ins inside ROW) 0			Category 3 (Fall-ins outside ROW) 20-<200 kV; 8-230 kV					

Figure 2 compares the vegetation-related transmission outages in 2006 with those in 2005 and 2004. There were 36 vegetation-related outages reported in 2005 compared to 17[‡] in 2006. The vegetation-related outages are exhibited in two groups 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 2006 appears to have decreased significantly from 2005, care must be exercised when attempting to compare 2006 performance with previous years. This is mainly due to the significant differences associated with the version 1 vegetation management standard. As an example, vegetation-related transmission outages caused by human or animal activity, storms, etc. would no longer be reported under the new version of the standard.

[‡] Vegetation-related transmission outages reported during the first quarter of 2006 have been adjusted to reflect the reporting requirements of FAC-003-1.

Figure 2 — Annual Vegetation-related Outage Performance Trending Chart



REGIONAL COMPLIANCE ENFORCEMENT PROGRAM AUDITS

In 2006, NERC audited the Electric Reliability Council of Texas, Inc. (ERCOT) and Western Electricity Coordinating Council (WECC) regional compliance enforcement programs. These audits evaluate the regions' performance against their approved compliance enforcement program implementation plans. The primary objective of the evaluation is to identify areas of greatest effectiveness, encourage the continued development of such practices, and determine areas that require improvement.

Audits of ERCOT and WECC regional compliance programs completed all second cycle regional audits. The audit teams included representatives from the former 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 on the [NERC Web site](#).

PROGRESS WITH 2005 PROGRAM SUMMARY REPORT RECOMMENDATIONS

In the [2005 Compliance Enforcement Program Summary Report](#), NERC made recommendations for improvements to the regional programs. Each of the regions were asked to describe the actions that they had taken with regard to each of the recommendations:

1. Florida Reliability Coordinating Council (FRCC) installed an electronic Access compliance database, calculated pseudo penalties in 2006, and participated in the various activities that were part of the recommendations. Additionally, FRCC was audited in 2006 and has addressed all of the issues discovered during the audit process. (Recommendation 2)
2. ReliabilityFirst Corporation (RFC) is in the process of incorporating the processes, procedures, and requirements in the various documents, guides, and manuals of the three legacy regions (ECAR, MAIN and MAAC). RFC has incorporated new process steps for disclosure of information and the completion of reporting requirements in the NERC Compliance and Enforcement Program and these will be carried through to the NERC Compliance Monitoring and Enforcement Program. RFC is transitioning to an electronic compliance data monitoring system in 2007. When the compliance data monitoring system is fully implemented, the tracking of compliance reporting is expected to be simplified. (Recommendation 2)
3. SERC Reliability Corporation (SERC) has developed an extensive database that is used for compliance and data reporting. SERC compliance uses the database to support all aspects of the compliance program including filings, mitigation plans, and reports to the SERC staff. (Recommendation 2)
4. NERC is currently implementing the NERC Compliance Data Management System (CDMS). It is a web-based portal reporting and tracking system that will interface electronically with regional database collection systems. This robust system 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. The CDMS system is expected to be available in 2007. (Recommendation 1)

REGIONAL COMPLIANCE PROGRAM OBSERVATIONS

NERC requested each region to submit a completed questionnaire with its 2006 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

All eight regions reported that they followed their approved 2006 implementation plan without any major variances.

Communications

Five regions held at least one compliance workshop in 2006. Those that did not hold workshops relied on Web sites, systems (such as Midwest Reliability Organization (MRO)'s Compliance Data Management System), and committee meetings but felt that face to face seminars would be beneficial to their members. All regions plan to hold workshops in 2007 to educate and inform the registered entities in their region.

Program Changes

In 2006, six regions reported significant changes to their programs as noted below:

1. To promote consistency throughout the compliance audit process, FRCC developed audit guides from the 2006 actively monitored standards. Additionally, FRCC began to send the registered entity audit folders thirty days prior to the audit. These audit folders contained a copy of each reliability standard and the applicable audit guide to assist the registered entity in gathering the proper documentation and/or records for the audit team to review. The change was unanimously positive from the audited entities, audit team members and the FRCC staff.
2. Northeast Power Coordinating Council: Cross Border Regional Entity, Inc. (NPCC) noted two significant changes from 2005:
 - a. The use of Snapshot Report to track compliance submittals against the due date. This tool provides at a glance the status of compliance submissions to date and highlight those that need follow-up.
 - b. The rollout of the new NPCC compliance Web page was completed at the end of 2005.
3. RFC had the most significant changes from 2005 to 2006 due to the merging of ECAR, MAIN, and MAAC. Merging of three legacy systems was a challenge but RFC noted the positive benefits of identifying and incorporating best practices during that effort.
4. SERC also made improvements to compliance reporting forms and noted improvements in reporting.

5. SPP added staff in 2006, which allowed them to attend more working group, member, and NERC meetings and increase their interaction with those stakeholders.
6. Southwest Power Pool (SPP) improved the timeliness of submittals to NERC.
7. WECC added a data review letter in conjunction with the self-certifications that minimized errors in both logging and reporting the results of self-certifications.
8. WECC has addressed timelines of reporting issues and has indicated a vast improvement. Additionally, WECC utilized a new method of randomly choosing the audited entities. This random method worked well for them and provided them a more balanced group of entities selected for audit.

Validation Processes

No region reported any changes to their validation processes that would impact the report.

Compliance Performance Reporting

In 2006, the regions continued to adhere to the [NERC Guidelines for Reporting and Disclosure](#). All regions disclosed both confirmed and alleged violations to NERC [with the exception of SERC for non-48 hour requirements]. NERC develops and posts quarterly compliance performance reports on the [NERC Web site](#).

Beginning July 2006, NERC initiated a linear reporting process where the regions provide violation information to NERC on an on-going basis. NERC uses this information to develop a confidential monthly performance report for the Board of Trustees Compliance Committee and quarterly reports for public posting.

Each month, NERC staff presents the confidential monthly performance report at the Board of Trustees Compliance Committee meeting. These reports provide up-to-date information regarding confirmed violations, alleged violations, probable violations that are identified during 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 changes implemented in 2006 helped to produce more accurate and informative reports. However, the present system continues to be inadequate.

Regional Program Strengths

Each region was asked to evaluate and report on the top three strengths of their programs. Listed below are the regional responses:

ERCOT

1. Access to data through ERCOT's tools.
2. Established a stakeholder process that automatically attends to certain NERC standards.

Regional Compliance Program Observations

3. Independence from committee involvement in assessment that makes them more adaptable to changing conditions without needing to convene others in decision making.

FRCC

1. Region wide interest in, and commitment to, reliability of the bulk power system.
2. Proactive, region wide effort to comply with the reliability standards.
3. Consistent, open communication between FRCC compliance staff and FRCC members to promote consistency.

MRO

1. Cooperation of the MRO members and their desire to be compliant with the reliability standards.
2. Continued success of and improvements to the Compliance Data Management System.
3. The overall maturation of the NERC compliance program.

NPCC

1. Commitment by regional participants to reliability and compliance and enforcement through the Membership Agreement.
2. Efficient communication and implementation of the program utilizing the Reliability Organizational structures that are in place.
3. Compliance experts and Web-based application to track and assess compliance.

RFC

1. A major strength for 2006 was the member participation in the newly formed region, their support of the organizational registration, and the fact that even with the challenges of the merger, the participants have been extremely receptive of the RFC Compliance Enforcement Program.
2. RFC has a staff with diverse utility experience capable of understanding and addressing issues which arise within its footprint. Collaboration of the staff provides for consistency across the region.
3. Staff strives to be cognizant of changes and issues to the reliability standards and to keep all entities informed of all requirements for compliance.

SERC

1. Member participation is a critical strength due to the extensive understanding members have of the overall bulk power system in the southeast. This is especially evident in audits where "local knowledge" guides the direction of the audits.
2. Member management drives compliance in that the member companies have made a commitment to the NERC standards. This is evident by the extent of the resources the members make available to SERC activities, and by the seriousness with which they view noncompliance. This is independent of any penalty aspect of the program.

3. The SERC Portal substantially improves the process of providing compliance forms for the members to complete and in tracking the submittals.

SPP

1. The compliance staff is available to our members and they know it.
2. The compliance staff provides the format and content for the program early in the year with reference material to help the companies manage their compliance efforts.
3. The compliance department is staffed with professional engineers who have worked in the field and inside the region. This experience has helped working with companies in understanding and finding ways to address their issues.

WECC

1. The top strength of the WECC regional program continues to be the incorporation of, and coordination with, the WECC RMS program. WECC has successfully used the results of the RMS program to report compliance with several of the NERC Compliance and Enforcement Program requirements. WECC accomplished this by developing RMS requirements that are consistent with NERC requirements. By using the RMS program for reporting NERC compliance, WECC has minimized the reporting requirements on the members.
2. Coordination with existing WECC programs and policies, including the CMOPS Compliance Monitoring Program (readiness audits). Many NERC requirements are met by existing WECC programs and policies, resulting in no additional reporting burden on the members. Some examples include:
 - a. MOD-010-0 & MOD-012-0 — No changes were required to the existing 10-year databank compilation program to meet these requirements.
 - b. FAC-005-0 — No changes were required to the existing 10-year databank compilation process for submitting facility rating data.
 - c. PRC-009-0 — To comply with this requirement, no changes were required to the *WECC Reporting Procedures for System Events*, which are used for Disturbance Reports.
 - d. EOP-002-0 — To comply with this requirement, no changes were required to the *WECC Reporting Procedures for System Events*, which are used for Disturbance Reports.
 - e. The NERC standards that identify 3-year review as part of the measuring process have been included in the CMOPS Readiness Audits.
3. WECC has identified self-certification as the best method for easing the reporting burden on the member systems in providing information for assessing individual member compliance with certain Standards. The WECC Compliance Process Task Force (CPTF) Random Audit Process is used to verify the information provided on the individual self-certification forms.

Additionally, the WECC membership's commitment to comply with the requirements of the NERC Compliance Enforcement Program and the WECC RMS program adds strength and effectiveness to the program.

Regional Program Areas for Improvement

NERC requested that the regions identify several areas of their program for improvement. Recorded below are their responses:

ERCOT

1. Increase staff knowledge of standards, since they are changing so often.
2. Validation of the contact points for newly registered entities.
3. Better documentation of specific internal assessment processes regarding ERCOT delegated tasks.

FRCC

1. Adding additional headcount to the FRCC compliance staff.
2. Develop or purchase a more robust compliance document tracking database.
3. Additional compliance workshops or seminars.
4. In 2007, much coordination with NERC compliance staff will be required to develop the audit guides and other compliance tools that in the past have been developed strictly by FRCC staff for our regional compliance program.

MRO

There are no significant areas of improvement needed. However, 2007 will be different than 2006 due to the changes in the compliance program.

NPCC

NPCC CBRE will implement the uniform NERC Compliance Monitoring and Enforcement Program in 2007. Areas of improvement will be reviewed and recommended at the conclusion of that program in early 2008.

RFC

1. The compliance staff is anticipating that the auditor training will help improve the entire audit process.
2. The compliance audit reports needs more documentation and detail in order to support and substantiate any finding.
3. The inclusion in the compliance audit report of findings for requirements which do not have measures or levels of noncompliance in the standard as violations. Though these violations will have no penalty, they still require a mitigation plan. This has created some confusion during 2006.

SERC

1. Improved participation by all those not currently registered is needed. The passage of legislation and registration will bring that about. This has been an ongoing issue.
2. Improved procedures are needed to orient new members to SERC and to provide training on the portal, committee participation, etc.
3. Enhancements will be made to the SERC Portal database to further automate the compliance process, particularly the “backend” status tracking aspects of the database.

SPP

1. The greatest improvement that would benefit everyone is a settlement of issues surrounding many of the NERC standards. We believe there could be consolidation of certain standards or requirements as well as completion of existing standards that are missing sections.
2. Better mitigation tracking.
3. Non-member participation.

WECC

1. Mitigation tracking has been accomplished manually in WECC. It has been difficult to stay current and up to date with the changes in the mitigation plans status when they are completed or changed.
2. Timeliness in reporting is an area where improvements could be recognized. The *2006 WECC Implementation Plan* includes a late data process that was utilized in 2006. Though there has been vast improvement, timeliness continues to be a challenge.
3. Violation tracking — WECC is planning to migrate to a database as opposed to just an Excel spreadsheet.

Problems Encountered

NERC encourages each region to identify any problems that they encountered in carrying out the compliance program. Both ERCOT and RFC noted difficulties in the ongoing registration process. RFC discussed the challenge they encountered in tracking data submittals and self-certification requirements on per functional basis. RFC will address this issue in their transition to an electronic Compliance Data Monitoring System in 2007.

Noncompliance Assessments and Enforcement Actions Taken

ERCOT

ERCOT is using the latest NERC enforcement tool as the violations are confirmed and is including the information in its confirmation letters.

FRCC

FRCC requires mitigation plans for all violations. FRCC also included sanctions and estimated monetary penalties in their compliance violation letters.

MRO and NPCC

MRO and NPCC send letters of noncompliance and require a mitigation plan.

RFC

Upon assessment of noncompliance, RFC issues a letter to the entity giving the entity notification of the alleged violation. In this letter, RFC requests the entities concurrence or rejection of the violation. In the event of concurrence a mitigation plan is requested. If rejected by the entity, RFC will work with the entity to come to a resolution or use the necessary appeals processes.

Once the alleged violation is confirmed, RFC will issue a letter indicating level of noncompliance and simulated monetary sanctions for the confirmed violation. RFC used the enforcement matrix in the RFC Compliance and Enforcement Program to assess all sanctions.

Reliability standards which do not have measures or levels of noncompliance are monitored and assessed by providing findings of violation with no level or penalty and requesting mitigation plans to achieve compliance.

The enforcement actions are taken in accordance with the RFC Compliance and Enforcement Program and require a mitigation plan for all violations.

Mitigation plans were required for all violations, regardless of the level.

SERC

SERC reported no instances of noncompliance that resulted in monetary penalties however, where there were instances of noncompliance found, SERC sent letters to the executive who signed the self-certification.

SPP

SPP follows the following process when it finds an entity in noncompliance:

- SPP notifies the company of the noncompliance finding. In 2006, the company generally had three choices: confirm the violation, show proof of compliance [as part of the cure period program], or appeal the violation. The violation is concurrently identified to NERC as a potential violation.
- If the member agrees with the finding or after all appeal steps are taken, if the violation stands, the status is “confirmed” to the executive department of the member and then follows the *NERC Guidelines for Reporting and Disclosure*.

In 2006, SPP did not impose financial penalties. All confirmed violations are required to submit a mitigation plan and all violations are posted through the *NERC Guidelines for Reporting and Disclosure*.

WECC

WECC follows the following process in a finding of noncompliance:

- In instances of noncompliance associated with the WECC RMS process, three letters were used; Data review letter, initial determination, and final determination. In the RMS instances the RMS sanction matrix was used. Monetary sanctions, where applicable, were collected from the entities that contractually participate in the RMS program and entities that do not participate were also sent the letters but no sanctions were collected.
- In instances where the noncompliance was discovered through the readiness evaluation/compliance audit the entity was notified through the letters associated with the readiness evaluation recommendations. No monetary sanctions were collected in conjunction with these noncompliance findings.
- Any other violations that were reported had no monetary sanctions associated with them. Efforts were made to use the NERC Sanction Calculation Spreadsheet, but in most instances information was not adequate to make good decisions about the variables.
- In response to the self-certified violations, a letter was created summarizing the reported violations from each entity for the purpose of confirmation.
- Additionally, WECC requests a mitigation plan in all instances of noncompliance.

Appeals

RFC reported one appeal to a finding of noncompliance. During this appeal, the appeal letter and all related documents and correspondence was reviewed with NERC, technical experts, and other compliance managers. The final determination reduced the level of noncompliance and was confirmed by the entity in violation.

SPP noted one appeal that was turned over to the appropriate working group to determine whether it has merit. If the appeal has merit the violation may be overturned. If the appeal does not have merit, the company must decide to take it to the higher appeal or accept the noncompliance finding. RFC will continue following the appeal until it is resolved.

Staffing Requirements

Given the challenges of implementing a new uniform NERC Compliance Monitoring and Enforcement Program in 2007, staffing requirements are of particular interest. Table 3 lists each region's current and projected staff.

Table 3 — Current and Projected Regional Staff

Region	Current Staff	2008 Projected Staff
ERCOT	7	11
NPCC	2.5	6
RFC	7	12
SERC	2	14
SPP	2 (with 1 to be added in 2007)	3
WECC	2	6

SPP points to their ability to engage the assistance of staff from the Southwest Power Pool for compliance activities.

FRCC has indicated that no changes are planned, but notes that a lack of volunteers may require them to reassess staffing needs.

ERCOT has indicated that its staff spends a significant amount on non-statutory (i.e., non-NERC) compliance activity.

Transmission Loading Relief Investigations

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 is an integral part of the compliance enforcement program. The Operating Committee requested that NERC compliance staff conduct routine investigations of significant events, such as TLR Level 5. NERC staff investigated 34 events that occurred in 2006. These investigations identified lessons learned, assessed reliability impacts, and evaluated fairness in implementation. These [TLR investigation reports](#) may be found on the NERC Web site.

RECOMMENDATIONS

NERC solicited the region's recommendations regarding the NERC Compliance Enforcement Program:

1. NERC should post an accurate matrix of NERC standards and functional model responsibilities by requirement. (ERCOT)
2. NERC should add further definition to the joint agency concept. (FRCC)
3. NERC should continue to refine standards so they are clearer and less ambiguous. (FRCC)
4. NERC should ensure that all standards have measures. (FRCC)
5. NERC should encrypt the NERC database to protect the data transmitted. (SERC)
 - a. SERC requests protocols to facilitate sending data from the SERC database to the NERC database.
6. NERC should post an annual calendar showing the due dates of various reports and updates. (SPP)

APPENDIX A — ACTIVELY MONITORED STANDARDS

Actively Monitored Standards Beginning January 1, 2006		
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-002-0	Coordination of Plans for New Facilities	1,2
FAC-003-0	Vegetation Management Program	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-014-0	Development of Interconnection-Specific Steady State System Models	1,2
MOD-015-0	Development of Interconnection-Specific Dynamics System Models	1,2
Personnel Performance, Training, and Qualifications		
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-003-0	Regional Procedure for Transmission Protection System Misoperations	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

Actively Monitored Standards Beginning January 1, 2006

Standard Number	Title	Requirement(s)
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	UVLS System Maintenance and Testing	1,2
PRC-012-0	Special Protection System Review Procedure	1,2
PRC-013-0	Special Protection System Database	1,2
PRC-015-0	Special Protection System Data and Documentation	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

APPENDIX B — 2006 PERFORMANCE STATISTICS

Standard		Totals			
		Total in Full Compliance	Total Violations	Percent in Full Compliance	Total Penalties
BAL-001-0	Real Power Balancing Control Performance	1,337	7	99.48%	\$147,696
BAL-002-0	Disturbance Control Performance	517	2	99.61%	\$3,799
EOP-001-0	Emergency Operations Planning	152	7	95.60%	\$6,000
EOP-002-0	Capacity and Energy Emergencies				
EOP-005-0	System Restoration Plans	137	13	91.33%	\$14,000
EOP-008-0	Plans for Loss of Control Center Functionality	142	24	85.54%	\$27,998
EOP-009-0	Documentation of Blackstart Generating Unit Test results	145	5	96.67%	\$1,000
FAC-002-0	Coordination of Plans for New Facilities	234	1	99.57%	\$0
FAC-003-1	Vegetation Management Program	684	7	98.99%	\$12,752
INT-001-0	Interchange Transaction Tagging	98		100.00%	\$0
IRO-001-0	Reliability Coordination — Responsibilities and Authorities	35		100.00%	\$0
IRO-004-0	Reliability Coordination — Operations Planning				
IRO-006-0	Reliability Coordination — Transmission Loading Relief		1		
PER-001-0	Operating Personnel Responsibility and Authority	155	5	96.88%	\$4,000
PER-002-0	Operating Personnel Training	144	16	90.00%	\$5,000
PER-003-0	Operating Personnel Credentials	1,478	66	95.73%	\$470,000
PER-004-0	Reliability Coordination — Staffing	63		100.00%	\$0
PRC-004-1	Analysis and Reporting of Transmission Protection System Misoperations		1		\$2,000
PRC-005-1	Transmission Protection System Maintenance and Testing	199	30	86.90%	\$10,763
PRC-007-0	Assuring Consistency with Regional UFLS Programs	196	27	87.89%	\$15,391
PRC-008-0	Underfrequency Loading Shedding Equipment Maintenance Programs	215	15	93.48%	\$8,823
PRC-009-0	UFLS Performance Following and Underfrequency Event				
PRC-011-0	UVLS System Maintenance and Testing	73	3	96.05%	\$0
PRC-015-0	Special Protection System Data and Documentation	106		100.00%	\$0
PRC-016-0	Special Protection System Misoperations	5	1		\$2,000
PRC-017-0	Special Protection System maintenance and Testing	92	4	95.83%	\$0
TOP-003-0	Planned Outage Coordination	224	2	99.12%	\$4,000

Standard		Totals			
		Total in Full Compliance	Total Violations	Percent in Full Compliance	Total Penalties
TOP-005-0	Operational Reliability Information	174	2	98.86%	\$4,000
TOP-007-0	Reporting SOL and IROL Violations		2		\$2,000
TPL-001-0	System Performance Under Normal Conditions	159	2	98.76%	\$4,000
TPL-002-0	System Performance Following Loss of a Single BES Element	157	3	98.13%	\$4,000
TPL-003-0	System Performance following the loss of Two or More BES Elements	155	5	96.88%	\$13,358
TPL-004-0	System Performance Following Extreme BES Events	156	4	97.50%	\$6,679
		7,227	255	96.59%	\$769,259