



1515 BROADWAY, NEW YORK, NY 10036-8901 TELEPHONE: (212) 840-1070 FAX: (212) 302-2782

**Northeast Power Coordinating Council**  
**Reliability Assessment Program**

**STATUS REPORT**

**February 1998**

Distributed to:

Members, Reliability Coordinating Committee  
Members, Task Force on System Studies  
Members, Task Force on System Protection  
Members, Task Force on Coordination of Planning  
Members, Task Force on Coordination of Operation  
Members, Task Force on Energy Management Technology  
and  
Mr. John E. Deegan  
Mr. Robert A. Hiney  
Mr. Edward A. Schwerdt  
Ms. Jennifer Budd

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## **APPENDICES**

- A) Budget Summary**
- B) NPCC Recommendation Tracking Database - Summary**
- C) Goals and Responsibilities**

**HIGHLIGHTS****PROGRAM****ITEM****NUMBER****53) CP-7 Working Group on the Review of NERC Planning Standards**

The Working Group on the Review of NERC Planning Standards (CP-7) is assessing and evaluating the NERC Planning Standards against the existing NPCC Reliability Assessment Program. Mr. A. Adamson, Chairman of TFCP, will make a presentation on status of the Working Group's efforts at the February 24, 1998 RCC meeting

**107) Joint Working Group on the Identification of Critical Facilities for Restoration**

This newly formed joint Working Group has representation from the Task Force on Coordination of Operation, on Energy Management Technology and System Protection. The first phase of the effort, to be concluded by April of 1998, will be the establishment of criteria that determine those facilities critical to system restoration.

**108) Working Group on NPCC Reliability Assessment for Summer 1998**

This new Working Group is performing a review of the overall reliability of the generation and transmission systems in the NPCC Region for the 1998 Summer period considering forecast system conditions in neighboring Regions. Mr. Charles Graham, the WG Chairman, will make a presentation at the February 24, 1998 RCC meeting.

**NPCC Open Review Process**

The NPCC Open Process for Criteria Review has been established on the NPCC Home Page. As of February 10, 1998 drafts of the following Documents have been placed on the page (the corresponding item numbers in this status report are indicated):

- Criteria: Emergency Operation Criteria (Document A-3) - item 1
- Operating Reserve Criteria (Document A-6) - item 2
- Guidelines: Automatic Underfrequency Load Shedding Program Guideline (Document B-7) - item 61
- Guidelines for On-Line Computer System Performance During Disturbances (B-12) - item 87
- Procedures: Procedures for Communications During Disturbances (Document C-3) - item 8
- Monitoring Procedures for Emergency Operation Criteria (Document C-5) - item 10
- Procedures During Shortages of Operating Reserves (Document C-19) - item 18
- Procedures During Abnormal Operating Conditions (Document C-20) - item 19

**NPCC Recommendation Tracking Database**

The Summary of the Recommendation Tracking Database is included as Appendix B in this NPCC Reliability Assessment Program Status Report.



TASK FORCE ON COORDINATION OF OPERATION

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Documents

1)A-3	Emergency Operation Criteria	<b>Description:</b> Objectives, principles and requirements are presented that govern the Areas in formulating plans and procedures to be followed in an emergency or during conditions which could lead to an emergency.	<b>Latest Version:</b> October, 1997 <b>Frequency of Reviews:</b> 3 Years <b>Next Review Date:</b> October 2000
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**Status/ Comments:** The NPCC members approved the proposed revisions to NPCC Document A-3 in October of 1997. Also reference items 10, 19 and 23.

2)A-6	Operating Reserve Criteria	<b>Description:</b> Objectives, principles and requirements are presented that govern the amount, availability and distribution of operation reserve.	<b>Latest Version:</b> February 14, 1996 <b>Frequency of Reviews:</b> 3 Years <b>Next Review Date:</b> March 1998
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**Status/ Comments:** Following the response of the FERC to the definitions of ancillary services proposed by the Interconnected Operations Services Working Group, the NPCC Control Performance Working Group has revised Document A-6 to reflect the manner in which reserve will be handled in an unbundled environment. In accordance with NPCC Document A-1, Criteria For Review and Approval of Documents, it has been submitted to the Task Forces on Coordination of Planning and System Studies for concurrent review. Also reference items 13, 18 and 27.

**TASK FORCE ON COORDINATION OF OPERATION**

**PROGRAM ITEM NUMBER**

**Documents**

3)B-2	Control Performance Guide During Normal Conditions	<b>Description:</b> Standards are established with which the NPCC Areas and systems within the Areas may measure control performance.	<b>Latest Version:</b> May 9,1995
			<b>Frequency of Reviews:</b> 3 Years
			<b>Next Review Date:</b> March 1998

**Status/ Comments:** The RCC charged the Security Process Working Group with ensuring that the NPCC Criteria, Guides and Procedures continue to be applicable and current in both the competitive marketplace and the mandatory environment. The Security Process Working Group is in the process of reviewing NPCC Document B-2, Control Performance Guide During Normal Conditions, from the above perspectives. A revised draft has been posted for open; the SPWG will coordinate the open review comments for review by the TFCO at its March Meeting.. Also reference items 12 and 26.

4)B-3	Guidelines for Inter-AREA Voltage Control	<b>Description:</b> Procedures and principles are established for occasions where a deficiency or an excess of reactive power can affect bulk power system voltage levels in a large portion of an Area or in two adjacent Areas.	<b>Latest Version:</b> November, 1997
			<b>Frequency of Reviews:</b> 3 Years
			<b>Next Review Date:</b> November 2000

**Status/ Comments:** Document B-3 was approved by the RCC at its November, 1997 meeting. The parallel procedural document, C-4, Monitoring Procedures for Guidelines for Inter-AREA Voltage Control, was reviewed at the same time as B-3 to insure consistency between the guide and its procedure. Also reference items 9 and 22.

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Documents

5)B-9	Guide for Rating Generating Capability	<b>Description:</b> Standards for rating and verifying net generating capability are established.	<b>Latest Version:</b> December 13, 1994
			<b>Frequency of Reviews:</b> 3 Years
			<b>Next Review Date:</b> March 1998

**Status/ Comments:** The RCC charged the Security Process Working Group with ensuring that the NPCC Criteria, Guides and Procedures continue to be applicable and current in both the competitive marketplace and the mandatory environment. The Security Process Working Group is in the process of reviewing NPCC Document B-9, Guide for Rating Generating Capability, from the above perspectives. A revised draft has been posted for open review; the SPWG will coordinate the open review comments for review by the TFCO at its March Meeting. Also reference items 11 and 25.

6)B-13	Guideline for Reporting System Disturbances.	<b>Description:</b> This document establishes requirements and guidelines for reporting the details of a system disturbance to enable assessments and reviews of those disturbances which affect a significant part of one Area or which have inter-Area implications.	<b>Latest Version:</b> June 1997
			<b>Frequency of Reviews:</b> 3 Years
			<b>Next Review Date:</b> June 1998

**Status/ Comments:** Former Procedure C-2 was presented to the Reliability Coordinating Council and approved as new Guide B-13 . It is now being further reviewed to address the reporting repetitive events stemming from a common cause, such as the ice storm of 1998, and to ensure consistency with newly released NERC Operating Policy 5.F.



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Documents

7)C-1	Glossary of Standard Operating Terms	<b>Description:</b> Standards for common terminology for voice communications between operators are established.	<b>Latest Version:</b>	see Status / Comments below
			<b>Next Review Date:</b>	June 1998 (Glossary in Document A-1)

**Status/ Comments:** The former document C-1 has been merged into the ongoing draft of the NPCC Glossary of Terms under the direction of the Joint Glossary Working Group, which, in turn, is under the custodianship of the Task Force on Coordination of Planning. The Glossary of Standard Operating Terms will no longer be maintained as a Procedure. Also reference items 37 and 56.

8)C-3	Procedures for Communications During Emergencies	<b>Description:</b> These Procedures direct NPCC's implementation of the NERC Interregional Emergency Telephone Networks (NERC Hot Line). To permit Regional discussions of an emergency condition, the NERC Hot Line immediately connects all Regional nodes on the Interregional Emergency Telephone Networks. The NERC Hot Line employs the Preset Conference Call, an automated conference call procedure, which requires a secure access code for participation.	<b>Latest Version:</b>	January 1997
			<b>Frequency of Reviews:</b>	1 Year
			<b>Next Review Date:</b>	March 1998

**Status/ Comments:** The Security Process Working Group is in the process of reviewing NPCC Document C-3, Procedures for Communications During Emergencies to ensure its applicability in the competitive market place and mandatory environment. A revised draft has been posted for open review; the SPWG will coordinate the open review comments for review by the TFCO at its March Meeting. Reference also item 16.

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Documents

9)C-4	Monitoring Procedures for Guidelines for Inter-AREA Voltage Control	<b>Description:</b> Procedures are established for the Task Force on Coordination of Operation's monitoring and reporting of conformance with NPCC's Guidelines for Inter-AREA Voltage Control.	<b>Latest Version:</b> November, 1997
			<b>Frequency of Reviews:</b> 3 Years
			<b>Next Review Date:</b> November 2000

**Status/ Comments:** Also reference items 4 and 22.

10)C-5	Monitoring Procedures for Emergency Operation Criteria	<b>Description:</b> Procedures are established for the Task Force on Coordination of Operation's monitoring and reporting of conformance with NPCC's Emergency Operation Criteria.	<b>Latest Version:</b> May 15, 1997
			<b>Frequency of Reviews:</b> 3 Years
			<b>Next Review Date:</b> March 1998

**Status/ Comments:** The RCC charged the Security Process Working Group (SPWG) with ensuring that the NPCC Criteria, Guides and Procedures continue to be applicable and current in both the competitive marketplace and the mandatory environment. The Security Process Working Group is in the process of reviewing NPCC Document C-5, Monitoring Procedures for Emergency Operating Criteria from the above perspectives. A revised draft has been posted for open review; the SPWG will coordinate the open review comments for review by the TFCO at its March Meeting. Also reference items 1, 23 and 29.

**TASK FORCE ON COORDINATION OF OPERATION**

**PROGRAM ITEM NUMBER**

**Documents**

11)C-7	Monitoring Procedures for Guide for Rating Generating Capability	<b>Description:</b>	Procedures are established for the Task Force on Coordination of Operation's monitoring and reporting of conformance with NPCC's Guide for Rating Generating Capability.	<b>Latest Version:</b>	November 7, 1994
				<b>Frequency of Reviews:</b>	3 Years
				<b>Next Review Date:</b>	March 1998

**Status/ Comments:** The RCC charged the Security Process Working Group with ensuring that the NPCC Criteria, Guides and Procedures continue to be applicable and current in both the competitive marketplace and the mandatory environment. The Security Process Working Group is in the process of reviewing NPCC Document C-7, Monitoring Procedures for Guide for Rating Generating Capability from the above perspectives. A revised draft has been posted for open review; the SPWG will coordinate the open review comments for review by the TFCO at its March Meeting. Also reference items 5 and 25.

12)C-8	Monitoring Procedures for Control Performance Guide During Normal Conditions	<b>Description:</b>	Procedures are established for the Task Force on Coordination of Operation's monitoring and reporting of conformance with NPCC's Control Performance Guide During Normal Conditions.	<b>Latest Version:</b>	May 10, 1995
				<b>Frequency of Reviews:</b>	3 Years
				<b>Next Review Date:</b>	March 1998

**Status/ Comments:** This document is currently being reviewed by the Control Performance Working Group CO-1. In addition, the RCC charged the Security Process Working Group with ensuring that the NPCC Criteria, Guides and Procedures continue to be applicable and current in both the competitive marketplace and the mandatory environment. The Security Process Working Group is in the process of reviewing NPCC Document C-8, Monitoring Procedures for Control Performance Guide During Normal Conditions from the above perspectives. A revised draft has been posted for open review; the SPWG will coordinate the open review comments for review by the TFCO at its March Meeting. Also reference items 3 and 26.

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**Documents**

13)C-9	Monitoring Procedures for Operating Reserve Criteria	<b>Description:</b>	Procedures are established for the Task Force on Coordination of Operation's monitoring and reporting of conformance with NPCC's Operating Reserve Criteria	<b>Latest Version:</b>	July 18, 1995
				<b>Frequency of Reviews:</b>	3 Years
				<b>Next Review Date:</b>	March1998

**Status/ Comments:** The RCC charged the Security Process Working Group with ensuring that the NPCC Criteria, Guides and Procedures continue to be applicable and current in both the competitive marketplace and the mandatory environment. The Security Process Working Group is in the process of reviewing NPCC Document C-9, Monitoring Procedures for Operating Reserve Criteria from the above perspectives. A revised draft has been posted for open review; the SPWG will coordinate the open review comments for review by the TFCO at its March Meeting. Also reference items 2 and 27.

14)C-11	Monitoring Procedures for Interconnected System Frequency Response	<b>Description:</b>	Procedures are established for monitoring and reporting the frequency responses to large generation losses.	<b>Latest Version:</b>	May 10, 1995
				<b>Frequency of Reviews:</b>	3 Years
				<b>Next Review Date:</b>	March1998

**Status/ Comments:** The RCC charged the Security Process Working Group with ensuring that the NPCC Criteria, Guides and Procedures continue to be applicable and current in both the competitive marketplace and the mandatory environment. The Security Process Working Group is in the process of reviewing NPCC Document C-11, Monitoring Procedures for Interconnected System Frequency Response from the above perspectives. A revised draft has been posted for open review; the SPWG will coordinate the open review comments for review by the TFCO at its March Meeting.

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15)C-12	Procedure for Shared Activation of Ten Minute Reserve	<b>Description:</b> Procedures are established to provide for the shared activation of ten minute reserve on an Area basis.	<b>Latest Version:</b> May 8, 1996
			<b>Frequency of Reviews:</b> 3 Years
			<b>Next Review Date:</b> March 1998

**Status/ Comments:** The RCC charged the Security Process Working Group with ensuring that the NPCC Criteria, Guides and Procedures continue to be applicable and current in both the competitive marketplace and the mandatory environment. The Security Process Working Group is in the process of reviewing NPCC Document C-12, Procedures for Shared Activation of Ten Minute Reserve, from the above perspectives. A revised draft has been posted for open review; the SPWG will coordinate the open review comments for review by the TFCO at its March Meeting.

16)C-13	Operational Planning Coordination	<b>Description:</b> Procedures are established to coordinate the exchange of operational data, provide for the notification of planned facility outages among the Areas, and provide for formal communications among the Areas in anticipation of a period of capacity shortage or light load conditions. It also established the procedures for the routine NPCC conference call held weekly among the Areas.	<b>Latest Version:</b> March 15, 1997
			<b>Frequency of Reviews:</b> 3 Years
			<b>Next Review Date:</b> March 2000

**Status/ Comments:** Reference also items 8 and 28.

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17)C-15	Procedures for Solar Magnetic Disturbances on Electrical Power Systems	<b>Description:</b>	Procedures are established providing for the reporting channels and information available to the operator during solar alerts and suggesting measures that may be taken to mitigate the impact of a solar magnetic disturbance.	<b>Latest Version:</b>	January 1997
				<b>Frequency of Reviews:</b>	3 Years
				<b>Next Review Date:</b>	March 1998

**Status/ Comments:** The RCC charged the Security Process Working Group with ensuring that the NPCC Criteria, Guides and Procedures continue to be applicable and current in both the competitive marketplace and the mandatory environment. The Security Process Working Group is in the process of reviewing NPCC Document C-15, Procedures for Solar Magnetic Disturbances on Electrical Power Systems, from the above perspectives. A revised draft has been posted for open review; the SPWG will coordinate the open review comments for review by the TFCO at its March Meeting.

18)C-19	Procedures During Shortages of Operating Reserve	<b>Description:</b>	This Procedure establishes specific instructions for the redistribution of Operating Reserve among the Areas when one or more Areas is experiencing an Operating Reserve deficiency.	<b>Latest Version:</b>	July 18, 1995
				<b>Frequency of Reviews:</b>	3 Years
				<b>Next Review Date:</b>	March 1998

**Status/ Comments:** The RCC charged the Security Process Working Group with ensuring that the NPCC Criteria, Guides and Procedures continue to be applicable and current in both the competitive marketplace and the mandatory environment. The Security Process Working Group is in the process of reviewing NPCC Document C-19, Procedures During Shortages of Operating Reserve, from the above perspectives. A revised draft has been posted for open review; the SPWG will coordinate the open review comments for review by the TFCO at its March Meeting. Also reference item 2.

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19)C-20	Procedures During Abnormal Operating Conditions	<b>Description:</b> This Procedure complements the Emergency Operation Criteria by establishing specific instructions for the System Operator during emergency conditions in an NPCC Area or Areas.	<b>Latest Version:</b> May 12, 1994
			<b>Frequency of Reviews:</b> 3 Years
			<b>Next Review Date:</b> March 1998

**Status/ Comments:** The RCC charged the Security Process Working Group with ensuring that the NPCC Criteria, Guides and Procedures continue to be applicable and current in both the competitive marketplace and the mandatory environment. The Security Process Working Group is in the process of reviewing NPCC Document C-20, Procedures During Abnormal Operating Conditions, from the above perspectives. A revised draft has been posted for open review; the SPWG will coordinate the open review comments for review by the TFCO at its March Meeting. Also reference items 1 and 23.

20)C-21	Monitoring Procedures for Conformance with Normal and Emergency Transfer Limits	<b>Description:</b> This Procedure establishes TFCO monitoring and reporting requirements for transfer limits during normal and emergency operations as stipulated in NPCC Document A-2, Basic Criteria for Design and Operation of Interconnected Power Systems.	<b>Latest Version:</b> January 1997
			<b>Frequency of Reviews:</b> 3 Years
			<b>Next Review Date:</b> March 1998

**Status/ Comments:** The RCC charged the Security Process Working Group with ensuring that the NPCC Criteria, Guides and Procedures continue to be applicable and current in both the competitive marketplace and the mandatory environment. The Security Process Working Group is in the process of reviewing NPCC Document C-21, Monitoring Procedures for Conformance with Normal and Emergency Transfer Limits from the above perspectives. A revised draft has been posted for open review; the SPWG will coordinate the open review comments for review by the TFCO at its March Meeting. Also reference item 24.

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21)	Task Force Scope	<b>Description:</b> The overall charge to the TFCO, together with the scope of activities, is given to the Task Force through its scope.	<b>Latest Version:</b> May 7, 1996
			<b>Frequency of Reviews:</b> 3 Years
			<b>Next Review Date:</b> May 1999

**Status/ Comments:** The Task Force on Coordination of Operation reviewed a revised scope and procedure of its activities at its meeting of March 5 and 6, 1996. The updated scope was approved by the Reliability Coordinating Committee at its meeting of May 7, 1996.

Surveys/Reviews

22)	Survey on conformance with the Guidelines for Inter-AREA Voltage Control	<b>Description:</b> As charged in the Monitoring Procedure C-4, each Area must successfully respond to a set of directives in order to demonstrate conformance with the Guidelines for Inter-AREA Voltage Control.	<b>Latest Version:</b> January 1997
			<b>Frequency of Reviews:</b> 3 Years
			<b>Next Review Date:</b> January 2000

**Status/ Comments:** Also reference items 4 and 9.

23)	Survey on conformance with the Emergency Operation Criteria	<b>Description:</b> As charged in the Monitoring Procedure C-5, each Area must successfully respond to a set of directives in order to demonstrate conformance with the Emergency Operation Criteria.	<b>Latest Version:</b> July 18, 1995
			<b>Frequency of Reviews:</b> 3 Years
			<b>Next Review Date:</b> July 1998

**Status/ Comments:** Also reference items 1, 10 and 19.



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Surveys/Reviews

- |     |   |                     |  |                              |                       |
|-----|---|---------------------|--|------------------------------|-----------------------|
| 24) | Monitoring and reporting of conformance with the provisions of operating limits as specified in the Basic Criteria for Design and Operation of Interconnected Power Systems   | <b>Description:</b> | This Procedure provides for each Area to demonstrate conformance to the testing criteria stated in the Basic Criteria for Design and Operation of Interconnected Power Systems.  | <b>Latest Version:</b>       | July 18, 1995         |
|     |   |                     |  | <b>Frequency of Reviews:</b> | 3 years               |
|     |   |                     |  | <b>Next Review Date:</b>     | July 1998             |
|     | <b>Status/ Comments:</b> Also reference item 20.  |                     |  |                              |                       |
|     |   |                     |  |                              |                       |
| 25) | Survey on conformance with the Guide for Rating Generating Capability   | <b>Description:</b> | As charged in the Monitoring Procedure C-7, each Area must state that it can verify the net capability of its generating capacity.   | <b>Latest Version:</b>       | January, 1997         |
|     |   |                     |  | <b>Frequency of Reviews:</b> | 3 Years               |
|     |   |                     |  | <b>Next Review Date:</b>     | January 2000          |
|     | <b>Status/ Comments:</b> Also reference items 5 and 11.   |                     |  |                              |                       |
|     |   |                     |  |                              |                       |
| 26) | Survey on conformance with the Control Performance Guide During Normal Conditions   | <b>Description:</b> | The Task Force on Coordination of Operation reports annually to the Reliability Coordinating Committee on the control performance of the Areas as demonstrated by conformance with the A1 and A2 standards as presented in the Monitoring Procedure C-8. | <b>Latest Version:</b>       | November 1997         |
|     |   |                     |  | <b>Frequency of Reviews:</b> | See Status / Comments |
|     |   |                     |  | <b>Next Review Date:</b>     | March 1998            |
|     | <b>Status/ Comments:</b> Ongoing criteria A1 and A2 performance is being monitored by the TFCO on a monthly basis as the NPCC Areas migrate from the A1 and A2 criteria to the NERC Control Performance Standard 1 and Control Performance Standard 2. Also reference items 3 and 12. |                     |  |                              |                       |

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Surveys/Reviews

27)	Survey on conformance with the Operating Reserve Criteria	<b>Description:</b>	The Task Force on Coordination of Operation reports annually to the Reliability Coordinating Committee on the conformance of the Areas with the Operating Reserve Criteria as demonstrated by surveying the ability of the Areas to return to pre-contingency conditions within ten minutes of a defined reportable event as outlined in the Monitoring Procedure C-9.	<b>Latest Version:</b>	June 1997
				<b>Frequency of Reviews:</b>	1 Year
				<b>Next Review Date:</b>	June 1998

**Status/ Comments:** The annual report of conformance by the Areas for the calendar year 1996 was submitted to the RCC and approved at its June 25, 1997 meeting by the NPCC Control Performance Working Group. Also reference items 2 and 13.

28)	Survey of NPCC Transmission Facilities List	<b>Description:</b>	An annual list of NPCC transmission facilities is established based on the criterion that, if removed from service, the transmission facility may directly or indirectly impact the reliability of another Area or other Areas.	<b>Latest Version:</b>	February 1998
				<b>Frequency of Reviews:</b>	1 Year
				<b>Next Review Date:</b>	February 1999

**Status/ Comments:** The annual review of the transmission facilities list was reviewed and approved by the Task Force on Coordination of Operation at its meeting of February 3 and 4, 1998. Also reference item 16.

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Surveys/Reviews

29)	Black Start Survey	<b>Description:</b> This is a survey of station emergency power start-up facilities.	<b>Latest Version:</b> April 1995
			<b>Frequency of Reviews:</b> 3 Year
			<b>Next Review Date:</b> March 1998

**Status/ Comments:** The survey is no longer required as part of the EIA-411 filing. Nevertheless, the Task Force on Coordination of Operation considered the need for the continuation of the process and has agreed to maintain the survey through its incorporation into NPCC Document C-5, Monitoring Procedures for Emergency Operation Criteria. To complement this charge, the Task Force on Coordination of Operation and the Task Force on Energy Management Technology have embarked on an effort to identify all such facilities (communications, transmission, computer control) critical to the restoration of the interconnected systems and develop criteria through which a definitive list of such critical facilities may be established. A final report is to be released in December of 1998. Reference also items 10, 23, 93 and 107.

Working Groups/Ad Hoc Assignments

30)CO-1	Control Performance	<b>Assignment:</b> The Working Group insures coordination between adjacent control areas in establishing interchange schedules, reviews time error correction procedures, and monitors the conformance of the Areas with NPCC Control Performance Criteria and Operating Reserve Criteria. At the request of the Task Force on Coordination of Operation, it conducts investigations of control performance problems.	<b>1998 Budget:</b> \$16,250
			<b>Expense to Date:</b> \$6,700

**Status/ Comments:** The Control Performance Working Group (CO-1) is currently overseeing the migration of the NPCC Areas from compliance with the old A1 and A2 control performance criteria to the NERC Control Performance Standard 1 and NERC Control Performance Standard 2 and is reconciling the NPCC inadvertent account for the year 1997.

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Working Groups/Ad Hoc Assignments

31)CO-2 Dispatcher Training

**Assignment:** The Working Group establishes a program for system dispatcher training relating to NPCC inter-Area matters, criteria, terminology, policies and operating instructions. It prepares and presents material at dispatcher training sessions exchanges information on internal dispatcher training methods. The Working Group CO-2 also evaluates and propose new techniques and training aids as they become available.

**1998 Budget:** \$21,250  
**Expense to Date:** \$5,700  
\$5,700

**Status/ Comments:** The Working Group on Dispatcher Training (CO - 2) and the TFCO are to return comments on a possible revised concept for the CO-2 training seminar at the TFCO meeting of March 25 and 26, 1998.

32)CO-7 Operation Review Team

**Assignment:** To enhance the relationship between the control room personnel and NPCC, and to insure a continued understanding and effective implementation of the criteria and guides.

**1998 Budget:** \$25,000  
**Expense to Date:** \$1,350

**Status/ Comments:** Recognizing its experience in control room surveys, the CO - 7 Working Group is assisting the NERC Compliance Subcommittee in developing strategies for compliance and Operator Certification. It is also testing the possible implementation of a periodic, real time survey of reserve adequacy among the NPCC Areas and within NPCC as a whole.

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Working Groups/Ad Hoc Assignments

33)CO-8	System Operations Managers Working Group	<b>Assignment:</b>	Provide a forum for the Managers of the NPCC ISO security centers to identify and discuss security concerns in the operation of the interconnected bulk power supply system, and specific concerns related to the integration of operation between and among the evolving ISOs. The System Operations Managers Working Group will also assist the Task Force on Coordination of Operation in their work on issues related to system security and the operation of the ISOs, and provide advice to the TFCO, as requested.	<b>1998 Budget:</b>	\$20,000
				<b>Expense to Date:</b>	\$6,887.50

**Status/ Comments:** The Working Group CO-8 has coordinated the implementation of the NERC Transmission Loading Relief Procedure and the Lake Erie Security Process among the NPCC Areas.

34)	Security Process Working Group	<b>Assignment:</b>	To develop and document the NPCC implementation of those recommendations emanating from the Security Process Task Force Report to the NERC Operating Committee and the NERC Engineering Committee.	<b>1998 Budget:</b>	\$25,000
				<b>Expense to Date:</b>	\$950

**Status/ Comments:** The Working Group is reassessing the NPCC security plan relative to the proper numbers of Security Coordinators to coordinate the security processes among the NPCC Areas and is coordinating the comments received through the open process dealing with the NPCC Criteria, Guides and Procedures revised to ensure their continued applicability in both the competitive marketplace and the mandatory environment.

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Working Groups/Ad Hoc Assignments

- |     |   |                          |  |                         |           |
|-----|---|--------------------------|--|-------------------------|-----------|
| 35) | Lake Erie Circulation Working Group (LECWG) | <b>Assignment:</b>       | The Lake Erie Circulation Working Group was formed to address the charge stemming from the Northeast Power Coordinating Council Security Process Plan. The Lake Erie Security Process has established Lake Erie line loading relief procedures developed by representatives from Ontario Hydro, the New York Power Pool, the Pennsylvania-New Jersey-Maryland Interconnection Association and the Michigan Electric Coordinated Systems. | <b>1998 Budget:</b>     | \$6,000   |
|     |   |                          |  | <b>Expense to Date:</b> | \$0.00    |
|     |   | <b>Status/ Comments:</b> | Work continues on the development of distribution factors and internal dispatch procedures to support the transfer curtailments outlined in the Lake Erie Security Process.  |                         |           |
|     |   |                          |  |                         |           |
| 36) | NPCC Ad Hoc Working Group on ATC            | <b>Assignment:</b>       | Formulate NPCC's responses to the updated charges from the NERC Engineering Committee (EC) to the NERC ATC Implementation Working Group. These include: the development of an ATC compliance review schedule; the coordination of intra-/inter-regional ATC postings; the development of data exchange guidelines; the assessment of the commercial viability of ATC calculations; and the continued review of the TRM/CBM parameters    | <b>1997 Budget:</b>     | \$15,000  |
|     |   |                          |  | <b>Expense to Date:</b> | \$9,250   |
|     |   |                          |  | <b>Completion Date</b>  | July 1998 |
|     |   | <b>Status/ Comments:</b> | The NPCC Ad Hoc ATC Working Group has been reconvened to address additional charges and coordination efforts and formulate NPCC's input to the NERC ATC Working Group. Also reference item 106.  |                         |           |

**PROGRAM ITEM NUMBER**

**Working Groups/Ad Hoc Assignments**

107)	Joint Working Group on the Identification of Critical Facilities for Restoration	Identification of the key facilities required for system restoration purposes and development of appropriate test procedures for the key facilities and their critical components in order to ensure their suitable operation in the event of a system disturbance and possible loss of AC station service power supply.	<b>1998 Budget:</b>	\$28, 400.00
			<b>Expense to Date:</b>	\$0.00
			<b>Completion Date:</b>	December 1998

**Status/ Comments:** The first phase of the effort, to be concluded by April of 1998, will be the establishment of criteria that determine those facilities critical to system restoration.

108)	Working Group on NPCC Reliability Assessment for Summer 1998	Review the overall reliability of the generation and transmission systems in the NPCC for the 1998 Summer period considering forecast system conditions in neighboring Regions. Review the operational readiness of the NPCC and recommend possible actions to mitigate any potential problems.	<b>1998 Budget:</b>	\$0.00
			<b>Expense to Date:</b>	\$0.00
			<b>Completion Date:</b>	March 1998

**Status/ Comments:** An initial draft report assessing the overall security of the NPCC Areas, and NPCC as a whole, is presently being developed.

TASK FORCE ON COORDINATION OF PLANNING

PROGRAM ITEM NUMBER

Documents

37)A-1	Criteria for Review and Approval of Documents	<b>Description:</b> Criteria outlines the review and approval procedures for all NPCC and NERC documents and contains the NPCC Glossary.	<b>Latest Version:</b> March 1997 <b>Frequency of Reviews:</b> 4 Years <b>Next Review Date:</b> Document A-1 - June 1998 Glossary - June 1998
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**Status/ Comments:** The Task Force on Coordination of Planning has begun a complete review of this document. A first draft will be discussed at the February 18, 1998 TFCP meeting. The document is being revised to incorporate the NPCC Open Process for the Review of Criteria, Guides, and Procedures and any other possible changes to the NPCC Reliability Assessment Program that TFCP ( CP-7) is considering. The Glossary, previously included as an appendix to A-1, will become a stand alone A document. Completion of the revised glossary is anticipated by June 1998.

38)A-2	Basic Criteria for Design and Operation of Interconnected Power Systems	<b>Description:</b> Criteria are established for proper design and operation concerning Resource Adequacy and Transmission Capability.	<b>Latest Version:</b> August 1995 <b>Frequency of Reviews:</b> 4 Years <b>Next Review Date:</b> August 1999
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**Status/ Comments:**

39)B-8	Guidelines for Area Review of Resource Adequacy	<b>Description:</b> Guidelines to help TFCP ascertain that each Area's resource plan is in accordance with the NPCC "Basic Criteria for Design and Operation of Interconnected Power Systems".	<b>Latest Version:</b> February 14, 1996 <b>Frequency of Reviews:</b> 3 Years <b>Next Review Date:</b> February 1999
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**Status/ Comments:**



TASK FORCE ON COORDINATION OF PLANNING

PROGRAM ITEM NUMBER

Documents

40)C-16	Procedure for NPCC Review of New or Modified Bulk Power System Special Protection Systems	<b>Description:</b> This document outlines procedures for reporting new or modified Bulk Power System Special Protection Systems.	<b>Latest Version:</b> September 28, 1995
			<b>Frequency of Reviews:</b> 3 Years
			<b>Next Review Date:</b> September 1998

**Status/ Comments:**

41)	Task Force Scope	<b>Description:</b> The Task Force on Coordination of Planning scope of activities.	<b>Latest Version:</b> February 26, 1997
			<b>Frequency of Reviews:</b> 3 Years
			<b>Next Review Date:</b> February 2000

**Status/ Comments:**

Surveys/Reviews

42)	Resource Adequacy – Coordination and Review of Area Studies	<b>Description:</b> Review of the New York Area resource adequacy study.	<b>Latest Version:</b> February 1996
			<b>Frequency of Reviews:</b> 3 Years
			<b>Next Review Date:</b> February 1999

**Status/ Comments:**

TASK FORCE ON COORDINATION OF PLANNING

PROGRAM ITEM NUMBER

Surveys/Reviews

- |     |   |                     |  |                              |                  |
|-----|---|---------------------|--|------------------------------|------------------|
| 43) | Resource Adequacy —<br>Coordination and Review of<br>Area Studies                       | <b>Description:</b> | Review of the New England Area resource<br>adequacy study. | <b>Latest Version:</b>       | June 1997        |
|     |   |                     |  | <b>Frequency of Reviews:</b> | 3 Years          |
|     |   |                     |  | <b>Next Review Date:</b>     | June 2000        |
|     | <b>Status/ Comments:</b> The Review was approved at the June 25, 1997 RCC 1997 meeting. |                     |  |                              |                  |
|     |   |                     |  |                              |                  |
| 44) | Resource Adequacy —<br>Coordination and Review of<br>Area Studies                       | <b>Description:</b> | Review of the Ontario Area resource adequacy<br>study.     | <b>Latest Version:</b>       | June 1997        |
|     |   |                     |  | <b>Frequency of Reviews:</b> | 3 Years          |
|     |   |                     |  | <b>Next Review Date:</b>     | June 2000        |
|     | <b>Status/ Comments:</b> The Review was approved at the June 25, 1997 RCC meeting.      |                     |  |                              |                  |
|     |   |                     |  |                              |                  |
| 45) | Resource Adequacy —<br>Coordination and Review of<br>Area Studies                       | <b>Description:</b> | Review of the Québec Area resource adequacy<br>study.      | <b>Latest Version:</b>       | November 8, 1995 |
|     |   |                     |  | <b>Frequency of Reviews:</b> | 3 Years          |
|     |   |                     |  | <b>Next Review Date:</b>     | November 1998    |
|     | <b>Status/ Comments:</b>  |                     |  |                              |                  |

**TASK FORCE ON COORDINATION OF PLANNING**

**PROGRAM ITEM NUMBER**

**Surveys/Reviews**

46)	Resource Adequacy – Coordination and Review of Area Studies	<b>Description:</b> Review of the Maritime Area resource adequacy study.	<b>Latest Version:</b> August 1994
			<b>Frequency of Reviews:</b> 3 Years
			<b>Next Review Date:</b> June 1998

**Status/ Comments:**

47)	NPCC Area Transmission Review	<b>Description:</b> Review of the New York Area future transmission plans (5-7 years out)	<b>Latest Version:</b> February 1997
			<b>Frequency of Reviews:</b> 1 Year
			<b>Next Review Date:</b> February 1998

**Status/ Comments:** The Task Force on Coordination of Planning is scheduled to review for approval the 1997 New York Area Interim Transmission Review at the February 18, 1998 TFCP meeting. This review was approved by the TFSS at their December, 1997 meeting.

48)	NPCC Area Transmission Review	<b>Description:</b> Review of the New England Area future transmission plans (5-7 years out)	<b>Latest Version:</b> June 1997
			<b>Frequency of Reviews:</b> 1 Year
			<b>Next Review Date:</b> June 1998

**Status/ Comments:**

TASK FORCE ON COORDINATION OF PLANNING

PROGRAM ITEM NUMBER

Surveys/Reviews

49)	NPCC Area Transmission Review	<b>Description:</b> Review of the Ontario Area future transmission plans (5-7 years out)	<b>Latest Version:</b> November 1997
			<b>Frequency of Reviews:</b> 1 Year
			<b>Next Review Date:</b> November 1998

**Status/ Comments:** Comprehensive Area Review was approved at the November 6, 1997 RCC meeting.

50)	NPCC Area Transmission Review	<b>Description:</b> Review of the Québec Area future transmission plans (5-7 years out)	<b>Latest Version:</b> September 1997
			<b>Frequency of Reviews:</b> 1 Year
			<b>Next Review Date:</b> September 1998

**Status/ Comments:**

51)	NPCC Area Transmission Review	<b>Description:</b> Review of the Maritime Area future transmission plans (5-7 years out)	<b>Latest Version:</b> June 1997
			<b>Frequency of Reviews:</b> 1 Year
			<b>Next Review Date:</b> June 1998

**Status/ Comments:**

**TASK FORCE ON COORDINATION OF PLANNING**

**PROGRAM ITEM NUMBER**

**Working Groups/Ad Hoc Assignments**

52)CP-5	Working Group on the Review of Interconnection Assistance Benefits	<b>Assignment</b>	Review the overall reliability benefits of the interconnections, for each Area, within the NPCC Region	<b>1998 Budget:</b>	\$8,000
				<b>Expense to Date:</b>	\$4,572.33
				<b>Completion Date:</b>	December 1998

**Status/ Comments:** The Working Group held its latest meeting on February 11, 1998. A report on 1998 Regional Capacity will be presented to the TFCP at their February 18, 1998 meeting. The working group is also looking at load forecasting uncertainty, MARS program enhancements and a proposed resource adequacy standard.

53)CP-7	Working Group on the Review of NERC Planning Standards	<b>Assignment</b>	Review the proposed NERC Planning Standards. Recommend changes to Standards. Assess monetary impact to comply with proposed Standards. Evaluate and implement necessary revisions to existing NPCC Reliability Assessment Program to comply with NERC Planning Standards. Develop and implement an NPCC Compliance and Enforcement Process.	<b>1998 Budget:</b>	\$25,000
				<b>Expense to Date:</b>	\$11,430
				<b>Completion Date:</b>	October 1998

**Status/ Comments:** The Working Group has developed a preliminary list of proposed changes to the NERC Standards and has supplied these to the NERC PSS. CP-7 has finalized its assessment of the Standards and is preparing NPCC's response to the NERC PSS request for a "soft" assessment of compliance to the existing NERC Standards. This will be finalized at the February 25, 1998 CP-7 meeting and forwarded, to NERC, in time for meeting the March 1, 1998 deadline. CP-7 has also begun review of the NPCC Reliability Assessment Program including the development of an enforcement process and is also scheduled to finalize an approximation of the Regional cost of compliance to the Standards at their next meeting.

**TASK FORCE ON COORDINATION OF PLANNING**

**PROGRAM ITEM NUMBER**

**Working Groups/Ad Hoc Assignments**

54)EMWG Environmental Matters Working Group

**Assignment** Serve as the primary resource to the TFCP on all environmental matters. This includes but is not limited to review of reliability implications, review of legislative and regulatory existing and emerging issues, evaluation of the effects of proposed system modifications, operating procedures or environmental equipment, identification of the need for special environmental studies, performance of assignments, etc.

**1998 Budget:** \$2,000  
**Expense to Date:** \$0  
**Completion Date:** Ongoing

**Status/ Comments:**

55)LCFWG Load, Capacity & Fuels Working Group

**Assignment** General: Serve as the primary resource to the TFCP on matters relating to load, capacity energy and fuels data within NPCC.  
  
 Specific: 1) Provide load, capacity energy, fuel and other data in electronic format through NERC to the DOE-EIA as part of the annual EIA-411 filing.  
  
 2) Prepare an NPCC load, capacity, energy, fuel and transmission data report.

**1998 Budget:** \$12,000  
**Expense to Date:** \$0  
**Completion Date:** 1) EIA-411 data: April 1998  
 2) NPCC Report: June 1998

**Status/ Comments:** The DOE/EIA Data Coordination Task Force met in December 1997 and January 1998 with representatives from the DOE Energy Information Administration (EIA) to discuss lessons learned from the 1997 data collection effort, and to plan and improve the 1998 effort. The NPCC Load, Capacity, Energy Fuels and Transmission report will distributed within NPCC and to other interested parties after the data has been submitted to NERC in April 1998. Also reference item 104. A draft of a new NPCC Procedure that will correspond to Section II.D in the NERC Planning Standards is under review by the LCFWG.

TASK FORCE ON COORDINATION OF PLANNING

PROGRAM ITEM NUMBER

Working Groups/Ad Hoc Assignments

56)JGWG	Joint Glossary Working Group	<b>Assignment</b>	To maintain the Glossary in the Criteria for Review and Approval of Documents (Document A-1) and to expand the Glossary to include new terms as necessary.	<b>1998 Budget:</b>	\$8,000
				<b>Expense to Date:</b>	\$0
				<b>Completion Date:</b>	June 1998 (Phase I)

**Status/ Comments:** The JGWG submitted a first draft of a combined Glossary to all NPCC task forces for review prior to the September 1997 task force meetings. A second task force review is required before the Glossary can be submitted to the RCC for approval at the June 1998 RCC meeting. Also reference items 7 and 37.

**TASK FORCE ON SYSTEM PROTECTION**

**PROGRAM ITEM NUMBER**

**Documents**

57)A-4	Maintenance Criteria for Bulk Power System Protection	<b>Description:</b>	Establishes the maintenance intervals and practices which should result in dependable and secure protection system operation.	<b>Latest Version:</b>	November 8, 1995
				<b>Frequency of Reviews:</b>	3 years
				<b>Next Review Date:</b>	June 1998

**Status/ Comments:** The TFSP determined at its January 26-27, 1998 meeting that additional changes to the Maintenance Criteria for Bulk Power System Protection (Document A-4) are required. The Document will be re-submitted to the "NPCC Open Process Review" and to the Task Forces on Coordination of Operation (TFCO) and on System Studies (TFSS) for concurrent review. The Document will be submitted to the RCC for approval at the June 1998 Reliability Coordinating Committee (RCC) meeting. Also reference item 70.

58)A-5	Bulk Power System Protection Criteria	<b>Description:</b>	This document establishes the minimum design objectives and recommends design practices to minimize the severity and extent of system disturbances and to minimize possible damage to system equipment.	<b>Latest Version:</b>	August 9, 1995
				<b>Frequency of Reviews:</b>	3 Years
				<b>Next Review Date:</b>	August 1998

**Status/ Comments:** At its January 26-27, 1998 meeting the TFSP reviewed a draft of the Bulk Power System Protection Criteria (Document A-5) prepared by an ad hoc working group. Among the issues the working group considered in the preparation of the draft were concerns expressed in Mr. Peter Czech's September 11, 1997 letter to the RCC et al regarding issues raised during the review of the NERC/DAWG Report on 1995 System Disturbances. A draft of Document A-5 will now be included in the "NPCC Open Process Review" and submitted to other task forces for concurrent review. The plan is to submit the Document to the RCC by the next scheduled review date of August 1998. Also reference item 69.



**TASK FORCE ON SYSTEM PROTECTION**

**PROGRAM ITEM NUMBER**

**Documents**

59)B-1	Guide for the Application of Autoreclosing to the Bulk Power System	<b>Description:</b> This document establishes guidelines for automatic reclosing to facilitate restoration of the system to normal following automatic tripping of transmission facilities.	<b>Latest Version:</b> February 14, 1996
			<b>Frequency of Reviews:</b> 3 Years
			<b>Next Review Date:</b> February 1999

**Status/ Comments:**

60)B-6	Automatic Load Shedding Employing Underfrequency Threshold Relays	<b>Description:</b> This guideline establishes characteristics for underfrequency load shedding relays which are set using discrete or threshold frequency values.	<b>Latest Version:</b> November 25, 1983
			<b>Frequency of Reviews:</b> 5 Years
			<b>Next Review Date:</b> June 1998

**Status/ Comments:** As part of the document review, the TFSP is merging documents B-6 and B-7 into a single guide (Document B-7) entitled Automatic Underfrequency Load Shedding Program Relaying Guideline. Also reference Item 61 below.

61)B-7	Application of Underfrequency Protection	<b>Description:</b> Guidelines for underfrequency limits for load shedding, selection and setting of underfrequency devices, and underfrequency operation of power generation equipment are established.	<b>Latest Version:</b> May 23, 1984
	New Title: Automatic Underfrequency Load Shedding Program Relaying Guideline		<b>Frequency of Reviews:</b> 5 Years
			<b>Next Review Date:</b> June 1998

**Status/ Comments:** As part of the document review, the TFSP is merging documents B-6 and B-7 into a single guide entitled Automatic Underfrequency Load Shedding Program Relaying Guideline (Document B-7). As part of the concurrent review process, the TFSS recommended additional changes, which the TFSP agreed to at its January 26-27, 1998 meeting. The Document will be re-submitted to the "NPCC Open Process Review" and to the TFCO, TFCP and TFSS for concurrent review. The Document will be submitted to the RCC for approval at the June 1998 RCC meeting. Also reference item 60.

TASK FORCE ON SYSTEM PROTECTION

PROGRAM ITEM NUMBER

Documents

62)B-11	Special Protection System Guideline	<b>Description:</b> This guideline categorizes the Special Protection System (SPS) according to the Criteria fault for which it is designed and the impact its failure would have on the network. It further provides guidelines for the design, testing and operation of the SPS.	<b>Latest Version:</b> February 14, 1996 <b>Frequency of Reviews:</b> 3 Years <b>Next Review Date:</b> February 1999
	<b>Status/ Comments:</b>		
63)C-22	Procedure for Reporting and Reviewing Proposed Protection Systems for the Bulk Power System  Formerly Document B-5	<b>Description:</b> This procedure indicates how new facilities or modifications to existing facilities are to be presented to the TFSP in order to ascertain conformance with the principles of the Protection Criteria.	<b>Latest Version:</b> September 25, 1996 <b>Frequency of Reviews:</b> 3 Years <b>Next Review Date:</b> September 1999
	<b>Status/ Comments:</b>		
64)	Task Force Scope	<b>Description:</b> The Task Force on System Protection scope of activities.	<b>Latest Version:</b> May 1996 <b>Frequency of Reviews:</b> 3 Years <b>Next Review Date:</b> May 1999
	<b>Status/ Comments:</b>		

TASK FORCE ON SYSTEM PROTECTION

PROGRAM ITEM NUMBER

Surveys/Reviews

65)	Minimum Maintenance Conformance Survey	<b>Description:</b>	Report on member system conformance with the Maintenance Criteria for Bulk Power System Protection (Document A-4).	<b>Latest Version:</b>	May 1997
				<b>Frequency of Reviews:</b>	1 Year
				<b>Next Review Date:</b>	April 1998

**Status/ Comments:** The annual survey for conformance with the Maintenance Criteria for Bulk Power System Protection (Document A-4) for the period ending December 31, 1997 was initiated with Mr. Edward A. Schwerdt's January 12, 1998 letter to NPCC Full and Associate Member Representatives, as well as System Protection Representatives. A report will be submitted to the RCC prior to the June 1998 meeting.

66)	Survey of Conformance to the NPCC Underfrequency Load Shedding Program	<b>Description:</b>	Report on Area conformance with sections 4.6 and 4.9 of the "Emergency Operation Criteria" (Document A-3)	<b>Latest Version:</b>	April 1997
				<b>Frequency of Reviews:</b>	1 Year
				<b>Next Review Date:</b>	April 1998

**Status/ Comments:** The annual survey of conformance with sections 4.6 and 4.9 of the "Emergency Operation Criteria" (Document A-3) for the period ending December 31, 1997 was initiated with Mr. Haahr's December 30, 1997 letter to the TFSP. Preliminary results of a survey regarding conformance with section 4.9 of Document A-3 -- MW load shed due to underfrequency tripping of generators -- were submitted to the TFCO for comments in October of 1997.

TASK FORCE ON SYSTEM PROTECTION

PROGRAM ITEM NUMBER

Surveys/Reviews

- |     |   |                          |   |                              |             |
|-----|---|--------------------------|---|------------------------------|-------------|
| 67) | Special Protection System List  | <b>Description:</b>      | A listing of Special Protection Systems on the NPCC Bulk Power System.  | <b>Latest Version:</b>       | April 1997  |
|     |   |                          |   | <b>Frequency of Reviews:</b> | 1 Year      |
|     |   |                          |   | <b>Next Review Date:</b>     | April 1998  |
|     |   | <b>Status/ Comments:</b> | The review of the 1998 NPCC Special Protection System List was initiated with Mr. Haahr's December 30, 1997 letter to members of the TFSP and the TFSS. The updated list will be submitted to the RCC prior to the June 1998 meeting.   |                              |             |
|     |   |                          |   |                              |             |
| 68) | Review protection systems for proposed installations or existing installations undergoing substantial modifications | <b>Description:</b>      | Review, in accordance with the Procedure for Reporting and Reviewing Proposed Protection Systems for the Bulk Power System (Document C-22) proposed protection systems, including special protection systems, for new major installations as well as existing installations undergoing substantial modifications, before such facilities are constructed or modified and report on the findings with respect to conformance with the NPCC Bulk Power System Protection Criteria (Document A-5). | <b>Latest Version:</b>       | Ongoing     |
|     |   |                          |   | <b>Frequency of Reviews:</b> | As Required |
|     |   | <b>Status/ Comments:</b> | At its recent meetings, the TFSP discussed a number of protection system changes, including SPS installations and modifications.  |                              |             |

**TASK FORCE ON SYSTEM PROTECTION**

**PROGRAM ITEM NUMBER**

**Surveys/Reviews**

69)	Review protection systems performance following major system events or disturbances	<b>Description:</b>	In conjunction with other task forces, review and analyze the detailed performance of protection systems following major power system disturbances and events and participate in the preparation of reports, which would include appropriate recommendations.	<b>Latest Version:</b>	Ongoing
				<b>Frequency of Reviews:</b>	As Required
		<b>Status/ Comments:</b>	The TFSP is strengthening the language in several NPCC documents based on its review of the NERC/DAWG Report on 1995 System Disturbances. The NERC/DAWG Report on 1996 System Disturbances has not been issued yet. Also reference item 58.		

**Working Groups/Ad Hoc Assignments**

70)	Protection System Maintenance Practices	<b>Assignment:</b>	Collect Bulk Power System protection system maintenance data on an annual basis to enable the TFSP to evaluate protection system maintenance costs and the impact on Bulk Power System performance due to alternative methods and intervals for protection system maintenance.	<b>Completion Date:</b>	Ongoing
				<b>Frequency of Reviews:</b>	3 years
				<b>Next Review Date:</b>	April 1998
		<b>Status/ Comments:</b>	The data collection effort previously performed by TFSP Working Group SP-5 will be continued yearly on a voluntary basis. TFSP members are evaluating the protection system performance data received for the years 1994, 1995 and 1996. Also reference item 57.		

TASK FORCE ON SYSTEM STUDIES

PROGRAM ITEM NUMBER

Documents

71)B-4	Guidelines for NPCC Area Transmission Reviews	<b>Description:</b> Guidelines to help TFSS ascertain that each Area's transmission expansion plan, based on its pro-posed generation additions, has been developed in accordance with the NPCC "Basic Criteria for Design and Operation of Interconnected Power Systems."	<b>Latest Version:</b> August 7, 1996 <b>Frequency of Reviews:</b> 3 Years <b>Next Review Date:</b> August 1999
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**Status/ Comments:**

72)B-10	Guidelines for Requesting Exclusions to Section 5.1 (B) and 6.1 (B) of the NPCC "Basic Criteria for Design and Operation of Interconnected Power Systems"	<b>Description:</b> Establishes procedures for requesting exclusion from certain contingencies in the Basic Criteria.  Note: Member Representatives shall be advised of approvals by the Reliability Coordinating Committee of applications for exclusions.	<b>Latest Version:</b> January 19, 1995 <b>Frequency of Reviews:</b> 3 years <b>Exp. Completion:</b> June 1998
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**Status/ Comments:** A revised version of the Document has been sent to the TFCO and TFCP for concurrent review.

73)C-18	Procedure for Testing and Analysis of Extreme Contingencies	<b>Description:</b> This document establishes a procedure for the testing and analysis of Extreme Contingencies.	<b>Latest Version:</b> January 19, 1995 <b>Frequency of Reviews:</b> 3 years <b>Next Review Date:</b> June 1998
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**Status/ Comments:** The TFSS reviewed the document at its February 12-13, 1998 meeting. The consensus was that the Document as written meets the new NERC Planning Standards.

**TASK FORCE ON SYSTEM STUDIES**

**PROGRAM ITEM NUMBER**

**Documents**

74)C-25	Procedure to Collect Real Time Data for Inter-Area Dynamic Analysis	<b>Description:</b> This document establishes a procedure for the collection of real time data following a power system disturbance for the purpose of analyzing the dynamic performance of the NPCC bulk power system.	<b>Latest Version:</b> February 1, 1996 <b>Frequency of Reviews:</b> 3 years <b>Next Review Date:</b> February 1999
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**Status/ Comments:**

75)	Task Force Scope	<b>Description:</b> The Task Force on System Studies scope of activities.	<b>Latest Version:</b> February 1997 <b>Frequency of Reviews:</b> 3 Years <b>Next Review Date:</b> February 2000
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**Status/ Comments:**

**Surveys/Reviews**

76)	NPCC Area Transmission Review	<b>Description:</b> Review of New York Area future transmission plans (5-7 years out)	<b>Latest Version:</b> February 1997 <b>Frequency of Reviews:</b> 1 Year <b>Next Review Date:</b> February 1998
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**Status/ Comments:** TFCP to review for approval the 1997 New York Area Interim Transmission Review at their February 18, 1998 meeting.

TASK FORCE ON SYSTEM STUDIES

PROGRAM ITEM NUMBER

Surveys/Reviews

77)	NPCC Area Transmission Review	<b>Description:</b> Review of New England Area future transmission plans (5-7 years out)	<b>Latest Version:</b> June 1997
			<b>Frequency of Reviews:</b> 1 Year
			<b>Next Review Date:</b> June 1998

**Status/ Comments:**

78)	NPCC Area Transmission Review	<b>Description:</b> Review of Ontario Area future transmission plans (5-7 years out)	<b>Latest Version:</b> November 1997
			<b>Frequency of Reviews:</b> 1 Year
			<b>Completion Date:</b> November 1998

**Status/ Comments:** Ontario Hydro's Comprehensive Review was approved by the RCC, at the November 6, 1997 meeting.

79)	NPCC Area Transmission Review	<b>Description:</b> Review of Québec Area future transmission plans (5-7 years out)	<b>Latest Version:</b> September, 1997
			<b>Frequency of Reviews:</b> 1 Year
			<b>Next Review Date:</b> September 1998

**Status/ Comments:**



TASK FORCE ON SYSTEM STUDIES

PROGRAM ITEM NUMBER

Surveys/Reviews

80)	NPCC Area Transmission Review	<b>Description:</b> Review of Maritime Area (New Brunswick and Nova Scotia) future transmission plans (5-7 years out)	<b>Latest Version:</b> June 1997 <b>Frequency of Reviews:</b> 1 Year <b>Next Review Date:</b> June 1998
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**Status/ Comments:**

81)	Adequacy of Automatic Load Shedding Programs	<b>Description:</b> Assessment of the adequacy and suitability of existing underfrequency load shedding settings.	<b>Latest Version:</b> June 21, 1994 <b>Frequency of Reviews:</b> 3 Years <b>Completion Date:</b> February 1998.
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**Status/ Comments:** The TFSS approved a draft report on this subject at their February 12-13, 1998 meeting.

82)	Creation of Base Case Library	<b>Description:</b> On an annual basis, develop a library of solved load flow cases and associated dynamic data.  Note: The present assessment is being conducted by the SS-37 Working Group.	<b>Latest Version:</b> December 1997 <b>Frequency of Reviews:</b> 1 Year <b>Completion Date:</b> November 1998
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**Status/ Comments:** For a current status, please see SS-37 Working Group, Item Number 85.

TASK FORCE ON SYSTEM STUDIES

PROGRAM ITEM NUMBER

Surveys/Reviews

83)	Overall Transmission Reliability Study	<b>Description:</b> Evaluate the need to perform an overall assessment to evaluate the thermal, and dynamic performance of the NPCC Region. If necessary perform this assessment including the calculation of Inter-Area transfer capabilities and Extreme contingency performance.	<b>Latest Version:</b> September 1997 <b>Frequency of Reviews:</b> 3 Years <b>Completion Date:</b> September 2000
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**Status/ Comments:**

84)	Review of Dynamic Analysis Recording Devices	<b>Description:</b> This review summarizes the characteristics of recording devices used to capture power system dynamic phenomena.	<b>Latest Version:</b> December 8, 1995 <b>Frequency of Reviews:</b> 3 Years <b>Next Review Date:</b> December 1998
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**Status/ Comments:**

Working Groups/Ad Hoc Assignments

85)SS-37	Base Case Development	<b>Assignment:</b> On an annual basis, develop a library of solved load flow cases and associated dynamic data.	<b>1998 Budget:</b> \$15,000 <b>Expense to Date:</b> \$3,107.79 <b>Completion Date:</b> Ongoing
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**Status/ Comments:** The Working Group has assembled the seven models that constitute the 1997 series of load flow cases, which includes 2 near-term, 3 midterm, and 2 long-term cases. The cases were completed and made available on the NPCC FTP site in December 1997. Based on the 1997 series, ten load flow models were updated by th SS-37 Working Group and submitted to the NERC Multiregional Modeling Group. Reference items 82 and 101.

TASK FORCE ON SYSTEM STUDIES

PROGRAM ITEM NUMBER

Working Groups/Ad Hoc Assignments

86)SS-38	Working Group on Inter- Area Dynamic Analysis	<b>Assignment:</b> Assigned to analyze dynamic phenomena, which may affect interconnected system reliability, especially in the area of low frequency oscillations.	<b>1998 Budget:</b> \$25,000
			<b>Expense to Date:</b> \$6,985.27
			<b>Completion Date:</b> April 1998 (first draft)

**Status/ Comments:** TFSS has assigned compliance with NERC Planning Standard I.F., to SS-38. The Working Group will proceed as follows: SS-38 will update the SS38-6 report and the Procedure to Collect Real-Time Data for Inter-Area Dynamic Analysis (Document C-25) to comply with the NERC standards as part of the normal triennial review process scheduled for 1998 for these two documents.

TASK FORCE ON ENERGY MANAGEMENT TECHNOLOGY

PROGRAM ITEM NUMBER

Documents

87)B-12	Guidelines for On-Line Computer System Performance During Disturbances	<b>Description:</b> This document establishes guidelines for the performance of NPCC Area on-line computer systems during a power system disturbance.	<b>Latest Version:</b> August 1996
			<b>Frequency of Reviews:</b> 3 Years
			<b>Next Review Date:</b> June 1998

**Status/ Comments:** The RCC charged the Security Process Working Group with ensuring that the NPCC Criteria, Guides and Procedures continue to be applicable and current in both the competitive marketplace and the mandatory environment. The Security Process Working Group has completed its review of NPCC Document B-12, Guidelines for On-Line Computer System Performance During Disturbances, from the above perspectives. A revised draft has been posted on the NPCC Web Site for open review. Comments on this document received through the NPCC Open Process Review will be addressed at the June, 1998 TFEMT meeting. Reference also item number 88.

88)C-17	Monitoring Procedures for Guidelines for On-Line Computer System Performance During Disturbances	<b>Description:</b> This document establishes monitoring and reporting procedures for the B-12 Guideline, and specifically details on-line computer response objectives.	<b>Latest Version:</b> July 1996
			<b>Frequency of Reviews:</b> 3 Years
			<b>Next Review Date:</b> June 1998

**Status/ Comments:** This Document will be reviewed in conjunction with the open review comments received on document B-12, Guidelines for On-Line Computer System Performance During Disturbances, by the TFEMT at its June, 1998 meeting. Reference also item number 87.

TASK FORCE ON ENERGY MANAGEMENT TECHNOLOGY

PROGRAM ITEM NUMBER

Surveys/Reviews

89)	Review of the NERC Disturbance Analysis Working Group's report on "1996 System Disturbance."	<b>Description:</b> Review of on-line computer performance during system events or disturbances including all NERC regions.	<b>Latest Review:</b> September 1996
			<b>Frequency of Reviews:</b> 1 Year
			<b>Next Review Date:</b> June 1998

**Status/ Comments:** The Task force is currently awaiting the completion of the 1996 NERC Disturbance Report by the NERC/DAWG.

90)	Review of NPCC Area disturbances	<b>Description:</b> Review of on-line computer system performance during disturbances, as required by Document B-12.	<b>Latest Review</b> September 1997
			<b>Frequency of Reviews:</b> As Required

**Status/ Comments:** The Task Force on Energy Management Technology will review the events of the December 4 and 7, 1997 Hydro Quebec disturbances that caused initiation of the Churchill Falls Type 1 SPS and the events of the January, 1998 Ice Storm from an EMS and computer systems performance viewpoint at its February 1998 meeting.

TASK FORCE ON ENERGY MANAGEMENT TECHNOLOGY

PROGRAM ITEM NUMBER

Surveys/Reviews

91)	Review On-Line Computer System Status Reports	<b>Description:</b> Review of member on-line computer system statuses and plans.	<b>Latest Review:</b> September 1997
			<b>Frequency of Reviews:</b> As Required

**Status/ Comments:** Member system status reports will be reviewed at the February 1998 Task Force meeting. This review will include highlights of each system's Energy Management System status and planned system enhancements. A review of the actions currently underway within each Area towards year 2000 computer system transition preparations will also be conducted. The Task Force will monitor the progress made by the individual Areas in year 2000 reviews and provide the TFCO with a review status report by March of 1998. TFEMT will also investigate cost sharing methodologies of the ISN, how this can be funded on the NERC level and within in NPCC, and the feasibility of ICCP/ISN implementation by the summer of 1998.

Working Groups/Ad Hoc Assignments

92) EMT-1	Energy Management Technology Workshop Working Group	<b>Assignment:</b> Annual workshop to address timely issues and update member system personnel associated with the provision of on-line computer systems for operation of the power system.	<b>1998 Budget:</b> \$5,000
			<b>Expense to Date:</b> \$0
			<b>Last Workshop:</b> May 23-24, 1996
			<b>Next Workshop:</b> May 14-15, 1998

**Status/ Comments:** The task force conducted an informational workshop encompassing proposed TSIN network implementations and several related issues in conjunction with its May 1996 meeting. The next workshop is scheduled for May 14th and 15th, 1998 in New England. The topic of the coming workshop is Reliability Tools in a Deregulated Electricity Market and will cover topics including Security Coordinator Tools, NERCnet, Information Security, and Millennia Preparations.

TASK FORCE ON ENERGY MANAGEMENT TECHNOLOGY

PROGRAM ITEM NUMBER

Working Groups/Ad Hoc Assignments

93) EMT-2 Energy Management Technology Survey Working Group	<b>Assignment:</b> Perform the biennial survey of NPCC member's Energy Management systems. This Survey contains data concerning hardware, functions and performance objectives. The Group then produces the Energy Management Technology Survey Report.	<b>Latest Version:</b> September 1997
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<b>Completion Date:</b>	See comments.
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**Status/ Comments:** The schedule for the EMT-2 effort will be assessed at the February 1998 meeting. Computer response time objectives, formerly updated with this report, are now being maintained at the NPCC offices. A Joint Working Group on the Identification of Critical Facilities for Restoration under the auspices of TFCO and comprised of representatives from TFSP, TFCO, and TFEMT has been created. The objective of this working group is to develop appropriate test procedures to ensure that key facilities required for system restoration purposes will operate properly in the event of a system disturbance and possible loss of AC station service power supply. The Control Room power supply survey completed by the TFEMT in September will serve as an aid to the ad hoc Working Group in drafting testing and maintenance guidelines for power supply backup systems associated with a systems restoration plans. Also reference item 29 and 107.

94) Correspondence with other regional and national groups associated with on-line computer systems	<b>Assignment:</b> Exchange of meeting minutes and other correspondence with representatives from other Regions. Also monitor IEEE and CIGRÉ efforts.	<b>Latest Review:</b> September 1997
		<b>Frequency of Reviews:</b> As Required

**Status/ Comments:** This is an ongoing effort to facilitate communications with other groups pursuing similar interests in order to enhance the knowledge of the Task Force on Energy Management Technology regarding current technologies. The majority of efforts in this area are currently being directed at participation in the NERC Data Exchange and Telecommunications Working Group efforts.

TASK FORCE ON ENERGY MANAGEMENT TECHNOLOGY

PROGRAM ITEM NUMBER

Working Groups/Ad Hoc Assignments

95)	Ad Hoc Working Group on Information Exchange	<b>Assignment:</b> Develop a document discussing communication channels, company contacts and coordination of outages.	<b>Latest Review:</b> September 1997
			<b>Frequency of Reviews:</b> As Required

**Status/ Comments:** The Ad Hoc Working Group on Information Exchange is currently preparing a compendium of control facilities, communication channel descriptions, and company contacts that upon completion will be available through the NPCC BBS system. Progress of this Ad Hoc Working Group will be reviewed at the February, 1998 TFEMT meeting.



**NPCC RELIABILITY ASSESSMENT PROGRAM  
STATUS REPORT**

**MAAC - ECAR - NPCC (MEN)**

PROGRAM ITEM NUMBER

Study Committees

96) MEN SC MEN Study Committee      **Assignment:** The MEN Study Committee directs the activities of the MEN Operating Studies and Future Systems Working Groups and reports to the Joint Interregional Review Committee (JIRC) on study activities and other interregional matters of interest.      **Completion Date:** Ongoing

**Status/ Comments:** The Study Committee met on February 5 and 6, 1998 to plan the MEN 1998 Summer Assessment and to discuss how best to adopt the Assessment Report to the changes that are taking place within NERC and the Reliability Regions. The Study Committee also discussed the scope and procedures for the MEN 1998 Dynamic Study. Also reference item 97.

Working Groups/Ad Hoc Assignments

97) OSWG MEN Operating Studies Working Group      **Assignment:** The MEN Operating Studies Working Group, under the direction of the MEN Study Committee, conducts appraisals of the MAAC-ECAR-NPCC (MEN) interconnected systems for expected summer and winter periods.      **1998 Budget:** \$10,000  
**Expense to Date:** \$2,250  
**Completion Date:** May 1998

**Status/ Comments:** The MEN 1998 Summer Operating Study forms the basis for the 1998 Summer Assessment Report. The plans for the study were agreed upon during a February 4 and 5, 1998 meeting of the MEN OSWG. The VEM/MEM 1998 summer base case has been finalized. The Assessment Report will be submitted through the MEN Study Committee to the Joint Interregional Review Committee for approval at its May 1998 meeting. Also reference item 96.

98) FSWG MEN Future Systems Working Group      **Assignment:** The MEN Future Systems Working Group, under the direction of the MEN Study Committee, conducts appraisals of the MAAC-ECAR-NPCC (MEN) interregional system performance for projected future conditions.      **Completion Date:** As assigned

**Status/ Comments:**

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL (NERC)

PROGRAM ITEM NUMBER

Working Groups/Ad Hoc Assignments

99) RAS	Reliability Assessment Subcommittee	<b>Assignment:</b> Conduct an annual review of the overall reliability of the existing and planned generation and transmission systems of the ten Regional Reliability Councils for the ten year horizon. Conduct semiannual seasonal assessments of the overall reliability of the existing generation and transmission systems of the ten Regional Reliability Councils.	<b>Completion Date:</b> June 1998
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**Status/ Comments:** The NERC Board of Trustees approved the Reliability Assessment Subcommittee 's annual overview of North American reliability, Reliability Assessment 1997-2006, at its September of 1997; the 1997/98 Winter Assessment was released in December of 1997. The 1998 Summer Assessment began February 1, 1998.

100) RCS	Reliability Criteria Subcommittee	<b>Assignment:</b> The RCS, as charged by the NERC Engineering Committee, assesses and evaluates the regional planning criteria.	<b>Completion Date:</b> October 1998
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**Status/ Comments:** The draft of the NERC Planning Principles and Guides (PS&Gs) developed by the RCS was approved as an interim reference document by the NERC Engineering Committee at its June 1997 meeting. Subsequently, the PS&Gs were approved as a reference document by the NERC Board of Trustees at its September 1997 meeting. The document is now being reviewed by all interested parties in accordance with the NERC Standards Review Process. Also reference item 53.

**NPCC RELIABILITY ASSESSMENT PROGRAM  
STATUS REPORT**

**NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL (NERC)**

**PROGRAM ITEM NUMBER**

**Working Groups/Ad Hoc Assignments**

101) MMWG	Multiregional Modeling Working Group	<b>Assignment:</b>	Develop a library of solved load flow models for use by the Regions and their member systems in planning and evaluating future systems and current operating conditions.	<b>1998 Budget:</b>	\$12,000
				<b>Expense to Date:</b>	\$6,000
				<b>Completion Date:</b>	Ongoing

**Status/ Comments:** The ten load flow models that constitute the 1997 series of NERC MMWG base cases were finalized and distributed in December of 1997. NPCC's input to the MMWG effort is provided by the SS-37 Working Group on Base Case Development. Also reference item 85.

102) LFWG	Load Forecasting Working Group	<b>Assignment:</b>	Annually develops sensitivity bandwidths about the US and Canadian forecast aggregations of peak demand and annual net energy for load.	<b>Completion Date:</b>	July 1998
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**Status/ Comments:** The NERC Engineering Committee accepted for publication the LFWG's June 1997 draft report, Peak Demand and Energy Projection Bandwidths: 1997-2006 Projections. The report is available on the NERC Home Page.

103)	Generating Availability Working Group	<b>Assignment:</b>	The Working Group provides guidance on industry issues related to generating availability and the collection of electric utility generator unit performance data for NERC's Generating Availability Data System (GADS)	<b>Completion Date:</b>	Ongoing
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**Status/ Comments:**

**NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL (NERC)**

**PROGRAM ITEM NUMBER**

**Working Groups/Ad Hoc Assignments**

104)	DOE/EIA Data Coordination Task Force	<b>Assignment:</b>	Serve as the electric utility industry 's coordinator with the Department of Energy (DOE) and the Energy Information Administration (EIA) in negotiating the requirements for data submission to the DOE and EIA.	<b>Completion Date:</b>	April 1998
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**Status/ Comments:** The DOE/EIA Data Coordination Task Force met in December 1997 and January 1998 with representatives from the DOE Energy Information Administration (EIA) to discuss lessons learned from the 1997 data collection effort, and to plan and improve the 1998 effort. The NPCC 1998 data will be submitted to NERC in April 1998, and NERC will forward the data for the US Areas to EIA in June. Also reference item 55.

105)	SDDWG System Dynamics Database Working Group	<b>Assignment:</b>	Develop a library of dynamic simulation models for use by the Regions and their member systems in planning and evaluating future systems and current operating conditions.	<b>1998 Budget:</b>	\$15,000
				<b>Expense to Date:</b>	\$650
				<b>Completion Date:</b>	Ongoing

**Status/ Comments:** On behalf of the working group, Ontario Hydro, has developed two dynamic cases - 1997 Fall and 2002 Summer. A full report by Ontario Hydro, including load flow and stability cases as well as plots of benchmark tests, was made available through the NERC Home Page in November 1997. In 1998 the SDDWG will assemble dynamic data for 1999 Summer and 2002 Winter peak conditions.

NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL (NERC)

PROGRAM ITEM NUMBER

Working Groups/Ad Hoc Assignments

106) ATC Implementation Working Group **Assignment:** Review the procedures developed by the Regions (or sub-regions) for determining ATC to ensure that the procedures are in concert with the ATC Principles in NERC's June 1996 Available Transfer Capability Definitions and Determination report. **Completion Date:** Ongoing

**Status/ Comments:** The Working Group is addressing issues raised at the TRM/CBM Symposium held on January 14-15, 1998. It continues to develop parameters for assessing the commercial viability of ATC calculations, it continues to monitor the status of Intra/Interregional ATC coordination, it is developing a guideline for data exchange and will begin to evaluate ATC compliance review. The Working Group held its latest meeting on February 12-13, 1998.

**NPCC RELIABILITY ASSESSMENT PROGRAM**

**STATUS REPORT**

**BUDGET SUMMARY**

<b>ITEM NUMBER</b>	<b>PROJECT DESCRIPTION</b>	<b>1998 BUDGET</b>	<b>1998 EXPENSE</b>
30	CO-1 Control Performance	\$16,250	\$6,700.00
31	CO-2 Dispatcher Training	\$21,250	\$5,700.00
32	CO-7 Operation Review Teams	\$25,000	\$1,350.00
33	CO-8 System Operations Managers Working Group	\$20,000	\$6,887.50
34	SPWG Security Process Working Group	\$25,000	\$950.00
35	LECWG Lake Erie Circulation Working Group	\$6,000	\$0
36	ATC NPCC Ad Hoc Working Group on ATC	\$15,000	\$9,250.00
52	CP-5 Working Group on the Review of Interconnection Assistance Benefits	\$8,000	\$4,572.33
53	CP-7 Working Group on the Review of NERC Planning Standards	\$25,000	\$11,430.00
54	EMWG Environmental Matters Working Group	\$2,000	\$0
55	LCFWG Load, Capacity & Fuels Working Group	\$12,000	\$0
56	JGWG Joint Glossary Working Group	\$8,000	\$0
85	SS-37 Base Case Development	\$15,000	\$3,107.79
86	SS-38 Inter-Area Dynamic Analysis	\$25,000	\$6,985.27
92	EMT-1 Energy Management Technology Workshop Working Group	\$5,000	\$0
97	MEN MAAC-ECAR-NPCC Activities - OSWG	\$10,000	\$2,250.00
101	MMWG NERC Multiregional Modeling Working Group	\$12,000	\$6,000.00
105	SDDWG Dynamic Database Working Group	\$15,000	\$650.00
	NERC NERC Working Groups	\$40,000	\$950.00
	STAFF	\$15,000	\$0
<b>TOTAL</b>		<b>\$320,500*</b>	<b>\$66,782.89</b>

\* At their November 6, 1997 meeting, the Reliability Coordinating Committee recommended that NPCC's 1998 Budget include \$200,000 in Account #800 "Project Expense" to cover the projects noted above.



**NPCC Reliability Assessment Program  
Recommendation Tracking Database - Summary  
Status Report**

<u>ID #</u>	<u>Recommendation Summary</u>	<u>STATUS</u>	<u>Lead Group</u>	<u>Next Tracking</u>
DOE-96-03	Regional reliability councils to cooperate with NERC to improve understanding of the causes of voltage collapse.	The Council fully supports NERC's effort to address the issue of system voltage performance and will maintain its representation on the Interconnection Dynamics Working Group. The SS-38 Working Group completed a comprehensive report on Analysis and Control Practices for Voltage Collapse Phenomenon in NPCC and Neighboring Regions. The report was approved by the TFSS at its December 15-16, 1997 meeting and will be sent to the RCC shortly.	TFSS	1998/6/26
DOE-96-04	Review the recommendations of NERC's 1991 Survey of the Voltage Collapse Phenomenon report and establish a tracking system to track the state of implementation of its recommendations regarding voltage collapse.	NPCC has developed a Recommendation tracking system to follow recommendations requiring action originating internal and external to NPCC. The NPCC Recommendation Tracking Database Summary is now a permanent part (Appendix B) of the NPCC Reliability Assessment Report (NRAP).	RCC	Complete
DOE-96-05	Define and enforce reliability standards to ensure that a continuous supply/demand balance is maintained and that transmission systems are operated within security limits.	NPCC will continue to monitor compliance to its Reliability Criteria through its Reliability Assessment Program. The updated NRAP Status report will be presented at the February 24, 1998 RCC meeting.	RCC	1998/2/24
NERC-95-01	ATC determination, IDC and TIS.	NPCC Methodology and Procedure for determining ATC was presented and approved by the NERC ATC Working Group on January 16, 1997. The NPCC Ad Hoc ATC Working Group reconvened in November 1997 and met again on February 17, 1998. The Working Group will revise its ATC Procedure Report, which will be submitted to the RCC in June of 1998. The TFCO continues to support tagging, and the March 10 and 11, 1998, meeting of the NERC OC will be presented with a comprehensive overview of the status of compliance by the NPCC Areas with NERC Operating Policy 3. The TFCO will recommend to the RCC that a business plan be developed to address a comprehensive Transaction Management System to encompass the needs of both tagging and a fully functional IDC.	RCC	1998/02/24



**NPCC Reliability Assessment Program  
Recommendation Tracking Database - Summary  
Status Report**

<u>ID #</u>	<u>Recommendation Summary</u>	<u>STATUS</u>	<u>Lead Group</u>	<u>Next Tracking</u>
NERC-95-02	Implement line loading relief procedure and Implement ISN primary node.	Work continues on the development of distribution factors and internal dispatch procedures to support the transfer curtailments outlined in the Lake Erie Security Process. New York and New England anticipate that they will have ICCP/ISN capability by the fall of 1998, inclusive of send/receive capability external to NPCC.	RCC	1998/11/5
NERC-95-03	Assure that NPCC documents conform to revised NERC documents.	NERC and NPCC documents are reviewed periodically -- as specified in the NPCC Reliability Assessment Program -- to ensure they are clearly defined, uniform and specific. The NPCC SPWG has reviewed NPCC documents related to operational issues to ensure that they are consistent with NERC Standards and Operating Policies. The CP-7 Working Group has completed its assessment of the NERC Planning Standards against the existing NPCC Reliability Assessment Program. A presentation on the status of the Working Group's efforts will be presented at the February, 24, 1998 RCC meeting.	RCC	1998/2/24
NERC-95-04	Review of NERC IOS Reference Document.	NPCC Taskforces reviewed and commented on the NERC IOS Reference Document and all NPCC comments have been processed.	RCC	Complete
NERC-96-01	Those entities performing the primary reliability functions of generation control (control areas) and system security coordination must be members of the Regional Reliability Councils with which they carry out their business.	NYPP and ISO-NE have been approved for NPCC full membership.	RCC	Complete
NERC-96-02	Enforcement of requirements through contractual agreements between industry participants.	Addressed within the context of the NPCC Electric Industry Reliability Framework Implementation Plan. The NPCC Compliance Monitoring process will be discussed at the February, 24, 1998 RCC meeting.	RCC	1998/2/24

**NPCC Reliability Assessment Program  
Recommendation Tracking Database - Summary  
Status Report**

<u>ID #</u>	<u>Recommendation Summary</u>	<u>STATUS</u>	<u>Lead Group</u>	<u>Next Tracking</u>
NERC-96-03	Develop certification policies, processes, practices and/or programs for use by the industry.	NPCC continues to participate in the NERC effort through Working Group CO-7, "Operation Review Team." The TFCO has participated in an open workshop on the current direction of certification and accreditation.	TFCO	1998/03/25
NERC-96-04	Perform a complete review and evaluation of its management structure, administration processes, capabilities, membership and committee structure in light of the emerging competitive and disaggregated industry structure.	On July 31, 1997, NPCC transmitted to NERC its Electric Industry Reliability Framework document which recommended a management framework for reliability assurance built on a set of guiding principals. On October 22, 1997 NPCC submitted to NERC a draft NPCC Implementation Plan for Mandatory Compliance detailing it's member systems continuing efforts and commitment to the implementation of the eleven guiding principals for reliability assurance identified in the Electric Industry Reliability Framework. The Framework was used as input to the NERC "Blue Ribbon" Electric Reliability Panel Report, which will be discussed at the February 24, 1998 RCC meeting.	RCC	1998/2/24
NERC-96-05	Review of committee structure to promote timely implementation of reliability protocols.	NPCC QRT was developed to ensure timely response to key industry issues. As a means of enhancing opportunities for involvement in the criteria process by all users NPCC has established an Open Review Process for the development of reliability policies, utilizing the NPCC Web Site. The Open Review Process was fully implemented on January 1, 1998.	QRT	1998/02/24
NERC-96-06	Perform a comprehensive review of the existing policies, standards, and criteria to ensure they are specific, measurable, adequate and appropriate for the new industry environment.	The NPCC SPWG has reviewed all NPCC documents in light of industry changes; in accordance with the NPCC Open Process, all of these documents have been posted for public comment.	TFCO	1998/03/25
NERC-96-07	Form a group to define enforcement measures in lieu of mandatory compliance and review the Regional Reliability Councils ability to impose sanctions for noncompliance.	NPCC has existing compliance plans in place at the Area level. However, it is reviewing its compliance plans to ensure their applicability in light of mandatory compliance through the implementation of NPCC's Electric Industry Reliability Framework. The NPCC Compliance Monitoring process will be discussed at the February, 24, 1998 RCC meeting.	RCC	1998/2/24

**NPCC Reliability Assessment Program  
Recommendation Tracking Database - Summary  
Status Report**

<u>ID #</u>	<u>Recommendation Summary</u>	<u>STATUS</u>	<u>Lead Group</u>	<u>Next Tracking</u>
NERC-96-08	A group should be formed to review and improve the existing dispute resolution process.	NPCC is reviewing its dispute resolution process to ensure its applicability in light of mandatory compliance through the implementation of NPCC's Electric Industry Reliability Framework.	QRT	1998/02/24
NERC-96-09	The industry should endorse functional separation of reliability management and commercial functions.	NPCC areas are moving forward with the implementation of functional separation of their Operations and Marketing functions. Ontario Hydro formed its CMO in March, 1997, Hydro Quebec announced separation of its Operations and Marketing functions in May, 1997, the ISO-NE was formed in July, 1997, NYPP is currently awaiting FERC ruling on its ISO filing, and New Brunswick has committed to opening its system.	TFCO	1998/03/25
NERC-96-10	Review of NERC/DAWG Report on 1995 System Disturbances	A Task Force on System Protection (TFSP) ad hoc working group has reviewed the Bulk Power System Protection Criteria (Document A-5) and recommended changes that address concerns emanating from the TFSP's review of the NERC/DAWG Report on 1995 System Disturbances. A draft of Document A-5 will now be included in the "NPCC Open Process Review" and submitted to other task forces for concurrent review.	TFSP	1998/4/21
NERC-97-01	Review of NERC Planning Standards to assess and evaluate them against the existing NPCC Reliability Assessment Program.	With the issuance of the NERC Planning Standards NPCC formed the CP-7 Working Group to assess and evaluate the NERC Planning Standards against the existing NPCC Reliability Assessment Program. A presentation on the status of the Working Group's efforts will be presented at the February, 24, 1998 RCC meeting.	TFCP	1998/2/24
NPCC-96-04	Status of Hydro Quebec System Enhancements.	The Hydro-Québec plan to ensure full compliance with NPCC Criteria was approved by the NPCC Executive Committee on November 6, 1997. HQ is expected to be in full compliance with all NPCC Criteria by May 1, 1998.	TFCO	1998/05/01

**NPCC Reliability Assessment Program  
Recommendation Tracking Database - Summary  
Status Report**

<u>ID #</u>	<u>Recommendation Summary</u>	<u>STATUS</u>	<u>Lead Group</u>	<u>Next Tracking</u>
NPCC-97-02	TFCO requests that the Control Performance Working Group (CO-1) investigate each Area's preparedness towards implementing CPS1 and CPS2 and its monitoring on the EMS system, and report this status back to TFCO at its July 17-18, 1997, meeting.	The TFCO continues to monitor the implementation of CPS1 and CPS2 by the NPCC Areas. All areas have reported that they will be running CPS1 and CPS2 by March of 1998.	TFCO	1998/03/25
NPCC-97-03	The Control Performance Working Group (CO-1) was asked to monitor, for a period of one year, Region wide reserve versus the Areas reserve commitments. CO-1 was requested to develop a scope to investigate reserve sharing for review by TFCO at its September 17th and 18th meeting in Toronto.	At its November, 1997, meeting the Task Force on Coordination of Operation accepted the recommendations of Working Group CO-1 on reserve sharing.	TFCO	Complete
NPCC-97-04	Report compliance with NPCC Emergency Operation Criteria (Document A-3) with respect to underfrequency tripping of generators.	Preliminary results of a survey regarding conformance to section 4.9 of Document A-3 -- MW load shed due to underfrequency tripping of generators -- were submitted to the TFCO for comments in October of 1997. The annual update (status as of December 31, 1997) will be issued together with the Survey of Conformance to the NPCC Underfrequency Load Shedding Program.	TFSP	1998/4/21
NPCC-97-05	Utilities should have a plan for initial and continuing training of those responsible for operating and maintaining electricity systems.	The Working Group on Dispatcher Training (CO - 2) and the TFCO are to return comments on a possible revised concept for the CO-2 training seminar at the TFCO meeting of March 25 and 26, 1998.	TFCO	1998/03/25
NPCC-97-07	System planners and operators need to work together during the design of new facilities and modification of existing facilities.	Members of SS-38 have been invited to attend and participate in all CO-2 seminars. The issue will be discussed further at the March 2-3, 1998 SS-38 meeting.	TFSS	1998/03/03
NPCC-97-09	Number and identity of Security Coordinators needed within NPCC.	The TFCO charged the SPWG with further addressing the question of the number and identity of Security Coordinators needed within NPCC. This issue will be discussed again at the March 25-26, 1998 TFCO meeting.	TFCO	1998/03/25

**NPCC Reliability Assessment Program  
Recommendation Tracking Database - Summary  
Status Report**

<u>ID #</u>	<u>Recommendation Summary</u>	<u>STATUS</u>	<u>Lead Group</u>	<u>Next Tracking</u>
NPCC-97-10	NPCC area to adhere to revised NERC Transaction Information System tagging implementation dates.	NPCC is continuing to support the NERC TIS tagging concept. All NPCC Areas have reported to the NERC Operating Committee the status of their compliance with NERC Operating Policy 3 defining tagging requirements.	TFCO	1998/03/01
NPCC-97-13	Upgrade the Area Trouble Reports and Shared Activation Reserve reporting to be EXCEL compatible and integrated into the Disturbance Control Standard (DCS) data collection and reporting.	CO-1 has completed the authoring and review of the design process and has developed a schedule for the completion of the control area - specific software enhancements needed to upgrade Area Trouble Reports and Shared Activation Reserve reporting to be EXCEL compatible and integrated into the Disturbance Criteria System (DCS) data collection and reporting. All Excel spreadsheets have been completed.	TFCO	Complete
NPCC-97-15	Review and testing of restoration plans and procedures needs to be strengthened.	Strengthening of the review and testing of restoration plans and procedures is being addressed in conjunction with the Joint Task Force Working Group on Testing Requirements for System Restoration Facilities, the scope of which has been approved by the Task Force on Coordination of Operation.	TFCO	1998/03/25
NPCC-97-16	Address challenges presented by year 2000 computer problems and how they relate to system security.	The TFEMT, at its February 11-12, 1998 meeting, reviewed progress made by the individual Areas in their year 2000 reviews. The TFEMT will inform TFCO of any lessons learned from anticipated or unexpected problems encountered that may have an inter-area impact (SPS, HVdc Controls, Protection Systems). An Area review status report will be delivered by TFEMT to TFCO in March of 1998.	TFEMT	1998/5/13
NPCC-98-01	1998 Ice Storm Report	A coordinated Area report on the NPCC ice storm of January, 1998, will be presented to the RCC at its meeting of February 24, 1998.	TFCO	1998/2/24
NPCC-98-02	Clarify the legal implications and understanding of the Code of Conduct in the discussion of potentially commercial issues at various NPCC meetings.	The question is to be discussed by the RCC at its meeting of February 24, 1998.	QRT	1998/2/24

**NPCC Reliability Assessment Program  
Recommendation Tracking Database - Summary  
Status Report**

<u>ID #</u>	<u>Recommendation Summary</u>	<u>STATUS</u>	<u>Lead Group</u>	<u>Next Tracking</u>
NPCC-98-03	QRT constitute a group from all NPCC Task Forces to develop an NPCC compliance structure.	The question is to be discussed by the RCC at its meeting of February 24, 1998.	QRT	1998/02/24
NPCC-98-04	Recommend to the TFCO several cost sharing methodologies on how the ISN may be funded on the NERC level and within NPCC.	The TFEMT discussed cost sharing methodologies of the ISN and how it may be funded on the NERC level and within NPCC at its February 11-12, 1998 meeting. The TFEMT's recommendations will be reviewed at the March 25-26, 1998 TFCO meeting.	TFEMT	1998/3/26
NPCC-98-05	TFEMT will investigate NPCC ICCP/ISN implementation feasibility for the summer of 1998.	TFEMT discussed NPCC ICCP/ISN implementation feasibility for the summer of 1998 at its February, 1998 meeting and adopted a two stage approach. OH and NYPP will work to implement data sharing with Michigan in stage one and complete the remaining data sharing implementations in stage two.	TFEMT	1998/6
NPCC-98-06	QRT to initiate ongoing coordination and review of the Year 2000 plans recognizing the necessity for sharing of information and data at the corporate level.	The question is to be discussed by the RCC at its meeting of February 24, 1998.	QRT	1998/02/24



## GOALS AND RESPONSIBILITIES

The Memorandum of Agreement of the Northeast Power Coordinating Council (NPCC) specifies:

“The purpose of the Council is to promote reliability and efficiency of electric service on the bulk power systems of the members of the Council by extending the coordination of their system design and operations in a manner consistent with the foregoing preambles [see Memorandum of Agreement, as amended to November 6, 1996].”

Consistent with the purpose, NPCC has established a Reliability Assessment Program. This program will bring together work done by the Council, its member systems and Areas (pools) relevant to the assessment of bulk power system reliability. Reviews and studies completed by member systems and Areas (pools) will not be duplicated by the Council, but will be referenced in appropriate NPCC reports.

The overall program includes two categories of assessment:

1. Standing Assessments
2. Ad Hoc Assessments

### Standing Assessment

The Reliability Coordinating Committee has the responsibility for assessing the reliability of the present and proposed bulk power systems of the NPCC members. To this end, the Reliability Coordinating Committee has assigned duties on an ongoing basis to NPCC Staff and to the Task Forces as generally covered by their respective scopes and specifically assigned in the attached program. Included in the assignment are: system studies applicable to intra-regional reviews; the formation and review of NPCC criteria, procedures, guides, diagrams, glossaries; and coordination of generation and transmission plans among the various investigations. In addition, all NPCC documents will be regularly reviewed, and updated where required. Finally, conformance with the criteria and guides by NPCC members will be assessed on a regular basis.

### Ad Hoc Assessments

Flexibility to deal with non-routine issues will be retained. To this end, the Reliability Coordinating Committee will make assignments on an ad hoc basis to Staff, Task Forces or ad hoc committees as appropriate. These assignments might include, for example, assessments of major system disturbances, whether they occur within the NPCC region or elsewhere. NPCC's participation in similar activities by NERC or governmental agencies would also be considered part of the Program.

### General

The Reliability Coordinating Committee is responsible for assignment, final review and approval of all reports. Final approval of criteria documents, following approval by the Reliability Coordinating Committee, rests with the NPCC member systems.

The various Task Forces, Staff and ad hoc committees, acting individually or in concert, will be responsible for the conduct of both the standing assessment and the ad hoc assessments.

The NPCC Staff will be responsible for the overall coordination of the Program.

Since the Program is by nature ongoing and dynamic, it will be modified by the Reliability Coordinating Committee when deemed necessary.

## Appendix C