

FINAL

New York State Reliability Council (NYSRC) Reliability Rules Subcommittee (RRS) Minutes of Meeting #16

NYISO, Guilderland, NY

Thursday, September 7, 2000

Attendance

Mayer Sasson* (Chairman)	Con Edison	Member
Roger Clayton (Secretary)	PG&E National Energy Group	Member
Keith O'Neal	New York State PSC	Member
Steve Corey	NYISO	Member
Larry Eng*	Niagara Mohawk Power Corp.	Member
Larry Hochberg	New York Power Authority	Member
Phil Davis	KeySpan Energy	Member
Ray Kinney	New York State Electric and Gas Corp.	Member
Pat Callahan	Rochester Gas & Electric	Member
Alan Adamson		Consultant
Bob Kotecha	Con Edison	Representing Mayer Sasson
James Albitz**	Columbia Gas Transmission	Guest (Open Session)
David Pentzien**	Columbia Gas Transmission	Guest (Open Session)

* = Did not attend, ** =Attended part time, *** =Attended part time by phone

1.0 Introduction

Mr. Clayton chaired the meeting in Mr. Sasson's absence and Mr. Kotecha attended for Mr. Sasson. Mr. Hochberg took the minutes.

1.1 Request for Additional Agenda Items

The posted agenda was discussed and amended as Additional Agenda Items 5.1 - 5.3. There being no further discussion, the amended agenda was adopted.

1.2 Topics for Open Session

The open session agenda items were reviewed in preparation for the open session. RRS discussed the Millennium gas pipeline routing issue at length. Mr. Kotecha reviewed the most recent pipeline routing alternative, proposed mitigating measures and specific remaining concerns. He provided RRS with a diagram showing where an incident along the transmission corridor involving this gas pipeline could impact Con Edison power lines feeding NYC, LI and Westchester. RRS discussed the recent Carlsbad, New Mexico gas pipeline incident and viewed several photos taken at the site. It was noted that a tower 660 feet away from the explosion site had been damaged and press reports indicated that railings along a nearby bridge had melted. RRS agreed that BPS reliability concerns regarding the Millennium pipeline route include: meeting the NYSRC post-contingency operation criteria (rule 4.2.5) and the potential loss of supply to Eastview substation in Westchester. RRS also took note of Millennium's response to FERC regarding the NYSRC filing.

2.0 Meeting Minutes/Action Items

2.1 Approval of RRS Minutes #15

The RRS Meeting #15 Minutes were unanimously approved with minor revisions.

2.2 Action Item List

The Action Item list was reviewed. An updated action item list is attached. Regarding action item 14-2, RRS discussed the type of information that would be most useful for monitoring compliance. RRS agreed that the compliance request should include monitoring of NYISO state changes and reserve pickups due to area control error and maintaining operating reserve for the summer 2000 time frame. It was suggested that action items 14-2 and 14-5 regarding compliance monitoring be combined. Mr. Adamson was requested to draft a letter addressed to the NYISO for RRS review (AI 16-1). Mr. O'Neal suggested a briefing by NYISO staff on current Operating Reserve issues as an agenda item for the next RRS meeting.

Mr. Adamson reported that two draft NYS reliability study reports have been issued--a baseline and a future assessment. He will forward the reports to RRS (AI 15-1).

3.0 Report on NYSRC EC Meeting #16

Mr. Sasson represented the RRS at EC meeting #16 Mr. Adamson provided the following update based on draft EC minutes:

- Funding mechanism for 2001 is not yet finalized.
- EC was updated on NOx, RRS scope of work, rules manual revision.
- Ramp Rate Reserve Criterion (Δ RR28) had been sent to the NYISO for comments. Mr. Adams reported that Mr. Calimano sent a response to RRS on August 16. RRS meeting attendees had not received it; Mr. Sasson will be asked to follow up (AI 16-2).

- List of Applications of Reliability Rules-RRS is to develop a process to maintain and update the list (refer to 4.2 below).

Regarding the NOx waiver, Mr. Kotecha noted that Con Edison is preparing to approach the NYDEC to clarify whether TO control centers can use the waiver as well.

4.0 NYSRC RR Development

The list of potential RR changes contained in the minutes of meeting #15 was discussed. Mr. Corey will send RRS the new P-V criteria (Δ RR1 and AI 16-4). Regarding Δ RR4, Mr. Corey reported that a list of BPS facilities was prepared, but not finalized. Δ RRs 7,14 and 17 were removed as they are included in the IRM study. Mr. Clayton will send out a template for Δ RR18.

	<u>Potential Rule Change</u>	<u>Assignee</u>	<u>RRS Action</u>
1.	New “knee of the curve” P-V criterion	S. Corey	Prepare template
2.	Planning responsibility (NY ISO TEI 5.3)	N/A NYISO issue	Remove from list
3.	Prioritization. Planning by queue position or by group.	N/A NYISO issue	Remove from list
4.	Definition of BPS	S. Corey	Prepare template
5.	Provision for Emergency Actions	K. O’Neal	Template completed
6.	Reserve requirements as a function of demand elasticity		Remove from list
7.	Study impact of changes to ICAP 1/10 ICAP WG & EOP criteria		2001 IRM study. Remove from list.
8.	Reactive load and resource PF requirements at BPS/LSE boundary	S. Corey	Prepare template
9.	Normal/extreme contingency definition	S. Corey	Prepare template
10.	Incremental impact criterion	S. Corey	Remove from list
11.	CBM/TRM issues	R. Clayton	Remove from list
12.	Disturbance reporting	L. Eng	Coordinate with NYISO disturbance reporting
13.	Long term reserve requirements (ISO/RC Agreement, Article 4.5)	K. O’Neal	
14.	ICAP assumptions on generators to be included in study	ICAP WG	2001 IRM study Remove from list
15.	Replacement Operating Reserve	K. O’Neal (T)	Completed. Remove from list.
16.	“Quick Start” Mode for 30 Minute GTs at Gowanus & Narrows	M. Sasson (T)	Completed. Remove from list.
17.	Impact of local RR on local and state wide reserve requirements	ICAP WG	2001 IRM study Remove from list

18.	Special Protection Systems – Application Criteria	R. Clayton	Template completed
19.	15 minute reserve criterion		Remove from list.
20.	Multiple utilities on same ROW	V. Kotecha	R.Clayton to research
21.	Restoration criteria	M. Sasson	Assignee added.
22.	Protection criteria	S. Corey	Prepare template
23.	Generator Unit Availability	A. Adamson	Completed. Remove from list
24.	Interconnection requirements		J. Adams to discuss with S. Corey.
25.	NOx Emissions – DEC criteria and impact on dispatch in NYC	M. Sasson	Draft policy statement tabled by EC
26.	Equipment maintenance criteria	P. Davis	Remove from list.
27.	System data maintenance		Description of potential rule required
28.	Ramp-rate reserve criterion	M. Sasson	Obtain NYISO comment on template
29.	Short-circuit criterion	S. Corey	Prepare template
30.	NYCA “state” performance	K. O’Neal	Prepare template

4.1 Approval of RR rev1

Due to time constraints, RRS agreed to hold a conference call on Monday, September 11 to review the final draft of the first revision of the Rules manual.

4.2 Introductory wording to "Applications to Reliability Rules for web site"

Some RRS members had concerns about the NYSRC taking on the responsibility for maintaining and updating the List of Applications of Reliability Rules since they are mostly operations related. Also, it was several RRS member's understanding that this list was to be included in the NYISO Transmission and Dispatching Operations Manual. Mr. Hochberg cited several paragraphs from the draft NYISO Transmission and Dispatching Operations manual which describe the Applications. For these reasons and due to tight time constraints, it was agreed to postpone review of the draft introductory paragraph provided by Mr. Sasson until further clarification is obtained from the EC regarding their intent.

5.0 Additional Agenda Items

5.1 NPCC A-6 Section 4.2.1 Compliance Review

Discussed under agenda item 2.2 Action Item List (AI 14-2).

5.2 Rules Measurements for Compliance Review

Discussion postponed.

5.3 ISO States

This item falls under potential rule #30.

6.0 Open Session

The open session ran from 1305 to 1610. The phone line was closed at 1320 as no participants were identified on the line.

6.1 NYSRC ICAP WG Report

Mr. Adamson reported on ICAP WG progress on the 2001-2002 IRM study. He noted the following:

- NYISO staff is updating the study assumptions. Several major changes from the previous study include generator FOR data updated to 1999, availability has improved for units on LI, 1500MW external ICAP (1000MW to NY and 500MW to PJM) and 300MW emergency assistance from Hydro Quebec--this assumption is still under review due to the 1500MW voltage based limit on HQ imports recently imposed by the NYISO.
- NYISO staff is looking to get approvals to use an updated database for areas outside NYCA.
- Appendix A is being drafted.
- An updated transmission model incorporating summer 2001 limits is needed.
- RRS should review the study assumptions at its next meeting. ICAP WG is meeting on 9/12. Following the ICAP WG meeting, Mr. Adamson will provide a report to Messrs. Sasson/Clayton regarding the status of the assumptions and transmission model (AI 16-3). Based on this status report, Mr. Cordeiro will be requested to expedite if needed.

6.2 NYSRC RCMS Report (NYISO Compliance)

Mr. Adamson reported on several items as follows:

- RCMS is developing a format for a report that will summarize the results of its compliance reviews.
- NYISO compliance review schedule has been developed--the schedule includes a review of the NERC pilot program.

- The EC had provided comments on the year 2000 compliance program which will be revised.
- RCMS developed a procedure for compliance reviews that will be sent to the EC for comments next month.
- RCMS is developing compliance templates for NYSRC rules--the templates will include measurements and levels of non-compliance similar to NPCC/NERC format.
- NPCC CMAS is drafting a compliance enforcement procedure to take effect in 2001.

6.3 NYSRC RRS Report (NERC/NPCC Compliance)

Mr. Adamson reported that there has been no further progress on merging the NERC rules into the NPCC rules manual.

6.4 NYSRC RR Development Report

Discussed in 4.0 above.

6.5 Millenium Pipeline meeting

Messrs. David Pentzien, Vice President Market Development, Columbia Gas Transmission (703-227-3223) and James Albitz, Design Manager-Millennium Pipeline Project, Columbia Gas Transmission (607-773-9115) attended the Open Session in response to the NYSRC's FERC filing regarding the Millennium gas pipeline project routing on critical Con Edison ROWs in Westchester. Mr. Clayton briefly reviewed RRS' scope and purpose and RRS members introduced themselves. Mr. Pentzien stated his purpose is to present facts about the reliability of the project and to try to address RRS concerns. Regarding the MOU between the PSC and Millennium, Mr. Pentzien noted at the outset that the NYPSC had upgraded its assessment of the project to "acceptable" from "minimally acceptable" as a result of recent design changes. Mr. Pentzien proceeded with a presentation that included discussion of the Northeast gas market, an overview of the Millennium project, pipeline routing issues and status update including design changes to mitigate the consequences of an event. Points in the presentation included:

- The expected growth rate for natural gas in the NE is about 1.5 BCF/day, mostly for electric power generation; market prices were volatile in NYC but stable in Ontario last January.
- A 500MW plant consumes about 90,000 decatherms/day and the Millennium project could transport enough gas for between six to seven 500MW facilities.
- Columbia Gas Transmission is 47.5% owner of the \$650-700 million investment in the pipeline project.
- The 422 mile pipeline would run from Ontario (Lake Erie) through NY and Westchester and terminate at a new high-pressure gas station at Mt. Vernon connecting the line to the Con Edison

existing gas network. From Lake Erie, the pipeline route uses existing gas ROW (about 78% of length), new ROW (about 7%), electric utility ROW (about 10%) and Lake (about 5%).

- FERC's general preference for routing new gas pipelines on existing ROWs is first gas, then power, and last transportation.
- The old pipeline route on Con Edison's electric ROWs in Westchester was about 32 miles long. It entered Westchester in the Town of Cortlandt and terminated in Mt. Vernon. The pipeline will be reduced to 24 inches in Westchester with maximum operating pressure of 1000psi; the pipeline route was changed from occupying about 15.5 miles of Con Edison powerline to about 2.3 miles where it would be parallel and adjacent within 100-200 feet. The proposed pipeline route crosses the Con Edison powerlines six times.
- Mitigation measures where the pipeline is within 1500 feet of Con Edison powerlines were added at the request of the NYPSC and include more stringent weld and leak test procedures, increased wall thickness, regular inspection of pipe internals, increased number of cutoff valves, valves have around the clock monitoring, remote actuation, automatic actuation for low/high/rate of change of pressure. It was noted that with 6 valves, a maximum burn time of 3-5 minutes was possible after closure of the valves. Mr. Pentzien also noted that in the Carlsbad incident, there were no internal inspection procedures, no automatic/remote shut down valves, and the burn lasted 45 minutes to an hour because of the lack of this type of valving. Mr. Pentzien estimated that about 9-10 miles of the proposed route are within the 1500 foot envelope of the electric towers.
- Con Edison's own low pressure gas pipelines parallel the powerlines for about 1 mile between Millwood West and Eastview and cross the powerlines at least seven times; Tennessee Gas pipeline crosses the powerline between Eastview and Sprainbrook.

Discussion of points in the presentation

RRS advised Messrs. Pentzien and Albitz of its concerns (cited in 1.2 above) and the potential impact to the electric power supply to NYC, LI, and Westchester of long-term damage to these critical Con Edison powerlines. Several questions were discussed:

- RRS: Has a crossing of the Hudson river south of the critical powerlines been considered?
Columbia Gas: The reason the pipeline crosses further north is to feed the Bowline power plant.
- RRS: Would a closure of valves in Westchester cause any power plants to trip off line?
Columbia Gas: Very unlikely since there are no power plants radial to the line in Westchester and he believes that Con Edison's gas system could absorb the loss of Millennium. It is possible if such an event occurred at the peak of gas usage, but gas usage typically peaks in the winter while electricity usage peaks in the summer.
- RRS: Could the microprocessor controlled valves close falsely if a power plant radial to the gas pipeline trips?
Columbia Gas: No. The valves can be adjusted to discriminate between a leak and a power plant trip.
- Columbia Gas: What can we do to ameliorate your concerns?
RRS: Commission a technical study to determine that with the proposed design, a worst case pipeline incident would not cause permanent damage to the Con Edison's powerlines, or, move the pipeline so that it is outside the

1500 foot envelope (except for the crossings) for the entire length of the critical Con Edison powerline.

- Columbia Gas: What are Con Edison's design criteria for existing pipelines on Con Edison's powerline? RRS: RRS does not have any authority regarding the pre-existing conditions.

7.0 Next Meeting

RRS Meeting #17 is scheduled at Con Edison on Thursday, October 5, 2000 @ 1000.

RRS Meeting #18 is scheduled at NYISO on Thursday, November 2, 2000 @ 1000.

RRS Meeting #19 is scheduled at NYISO on Thursday, December 7, 2000 @ 1000.

Final Minutes of Meeting #16. Submitted to RRS by Larry Hochberg on October 10, 2000.