

**Joint Meeting of the
New York State Reliability Council, L.L.C. (NYSRC)
Reliability Rules Subcommittee (RRS) /
Reliability Compliance Monitoring Subcommittee (RCMS)
Thursday, March 3, 2016**

Minutes of RRS Meeting No. 199

RRS Members and Alternates:

Roger Clayton, Electric Power Resources (Chairman)

Larry Hochberg, NYPA (Vice Chairman) (Phone)

Zoraini Rodriguez, PSEG_LI/LIPA (Phone)

Martin Paszek, Con Edison (Secretary)

Roy Pfleiderer, National Grid (Phone)

Non-Voting Participants:

Al Adamson, Consultant (Phone)

Matilda Duli, Con Edison (Phone)

Dan Head, Con Edison (Phone)

Brian Shanahan, National Grid (Phone)

Sal Spagnolo, NYPA

Jim Grant, NYISO

Mark Capano, NYISO

Chris Sharp, NYISO

Aaron Markham, NYISO (Partial)

Wes Yeomans, NYISO (Partial)

Edward Schrom, DPS (Phone)

RRS Meeting # 199 was called to order by Mr. Clayton at 9:30 am.

1. Introduction

Mr. Clayton stated that, as part of Agenda Item 3.1.4 PRR 130 D.1 *Mitigation of Major Emergencies (Clarification of ETC Application)*, Wes Yeomans and Aaron Markham will present on Emergency Transfer Criteria (ETC) and its application at the NYISO. However, due to their limited availability, this Agenda Item may be moved in order to accommodate their schedules.

1.1 Executive Session

None requested.

1.2 Requests for Additional Agenda Items

The following additional Agenda Item was requested:

6.3. Approval of NYSRC Procedure for NYCA Transmission Reviews

2. Approval of Minutes / Action Items

2.1 Approval of RRS Minutes #198

RRS reviewed the Minutes from the last RRS meeting. Minor comments were provided to the Minutes and with these changes, Minutes are considered as final.

2.2 RRS Action Items List

Action Item 198-6: Mr. Hochberg provided a short description of the two attachments that he forwarded to the group on March 2, 2016. The two attachments present a review of NERC Definitions of Planning and Operating Studies. Mr. Hochberg stated that NERC defines - pretty well - Transmission Planning and Operating time horizons in NERC Studies. For Transmission Planning Studies it appears that a horizon would be 1 year and beyond, broken down into two segments: Segment 1: year 1 through 5 (near term) and Segment 2: year 6 and beyond (long term). For Operating Studies, it appears that a horizon would be 12 months or less. In addition, NERC Standards (and subsequent required analysis) are setup specifically to match these definitions.

Mr. Hochberg stated that, as of now, the NYSRC Reliability Rules do not have these distinct definitions of Planning and Operating time horizons, and asked RRS Members if the NYSRC Reliability Rules should have such time horizon distinctions (for Section B: *Transmission Planning* and for Section C: *Transmission Operation*).

Mr. Paszek stated that Con Edison is already set up so that Section B is addressed by Transmission Planners (1 year and beyond) and Section C is addressed by System Operations (12 months or less). Mr. Grant stated that what Mr. Hochberg presented is correct and also stated that the NYISO is set up similarly to Con Edison.

Mr. Clayton stated that we could use definitions that would clearly define Planning and Operating time horizons as they apply to the NYSRC Reliability Rules and that these definitions should be based on the existing NERC definition. After a short discussion it was decided that a new paragraph will be added to Sections B and C (with a Glossary reference back to NERC definitions). No PRR is required but EC approval would be required. **Action Item 199-1:** Mr. Adamson to develop changes to the Introductions to Sections B and C of the NYSRC Reliability Rules (with new associated Glossary Terms).

After the discussion it was decided that the status of this Action Item should be changed to Completed.

Action Item 198-5: Mr. Grant stated that the NYISO position is that all Exceptions to the NYSRC Reliability Rules should apply to Section B: *Transmission Planning* and Section C: *Transmission Operation*. Mr. Clayton stated that the Transmission Owner owns (and promotes) these Exceptions and each TO should review these for their applicability. Mr. Clayton requested NYISO Planning personnel to be present at the next RRS meeting so that RRS can review the applicability of each Exception one by one. Mr. Grant requested that all TO should have Planning personnel available as well.

After the discussion it was decided that the status of this Action Item should be changed to Completed. New **Action Item 199-2**: Review the NYSRC Exceptions whether they are applicable to Section B: *Transmission Planning* and Section C: *Transmission Operation*.

Action Item 198-4: Due Date changed to 3/31/2016.

Action Item 198-3: Due Date changed to 3/31/2016. See additional Agenda Item 6.3.

Action Item 198-2: On agenda today and status is changed to Completed.

Action Item 198-1: On agenda today and status is changed to Completed.

Action Item 197-10: On agenda today and status is changed to Completed.

Action Item 197-8: Status Changed to On-going. See additional Agenda Item 6.2.

Action Item 197-7: On agenda today and status is changed to Completed.

Action Item 197-5: Due Date changed to 3/31/2016.

Action Item 197-1: See Action Item 198-5. Status is changed to Completed.

Action Item 195-6: Due to the fact that not all RRS Members received materials for this Action Item, the discussion was deferred to the next meeting. The due date was changed to 3/31/2016.

A high level discussion occurred and two Options were proposed for RRS Members' consideration (for the next RRS meeting): Option 1: To Change NYSRC Reliability Rules (related to Restoration Training) so that these Rules are consistent (equal or more specific) with NERC Requirements; Option 2: To remove Section F2 from the NYSRC Reliability Rules altogether. **Action Item 199-3**: Mr. Sipperly, Mr. Gordon, and Mr. Grant to clarify Action Item 195-6 Table and distribute to RRS Members.

Action Item 195-1: On-going.

Action Item 191-2: On-going.

Action Item 141-1: On-going.

Action Item 139-1: On-going.

Action Item 87-5: On-going.

Action Item 83-8: On-going.

3. NYSRC Reliability Rules Development

3.1 Outstanding PRR List

PRRs 120, 121, 122 are on the table for approval to NYSRC Executive Committee.

PRR 128 is tabled pending NPCC A-10 Revision. All other PRRs are on the table for today's discussion.

3.1.1 PRR120 B.1 Transmission System Planning Performance Requirements

Mr. Clayton stated that PRR 120, 121 and 122 were up for comments. No comments were received. The comment period ended on February 28th, 2016. Thus, PRR 120, 121, 122 are on the table for approval to NYSRC Executive Committee for consideration as Final.

The following statement: *“The Reliability Rules also apply after any critical generator, transmission circuit, transformer, series or shunt compensating device, or high voltage direct current (HVDC) pole has already been lost, and after generation and power flows have been adjusted between outages by the use of ten (10) minute operating reserve and, where available, phase angle regulator control and HVDC control.”* will be removed from the Introduction Section of NYSRC Reliability Rules Section B. *Transmission Planning*, as it'll become redundant.

PRR 120 was approved (by consensus) to NYSRC Executive Committee for consideration as Final.

3.1.2 PRR121 B.2 Transmission System Assessments

PRR 120 and PRR 122 were approved (by consensus) to NYSRC Executive Committee for consideration as Final.

3.1.3 PRR122 C.1 Establishing Operating Transfer Limits

See Agenda Item 3.1.2.

3.1.4 PRR130 D.1 Mitigation of Major Emergencies

Mr. Clayton stated that there is an apparent contradiction in the NYSRC Reliability Rules with respect to what the NYISO does in declaring ETC and what the Reliability Rules actually say. The suggestion is to add the following line, into the current Reliability Rule C.1 *Establishing Operating Transfer Capabilities*, Requirement 2, “These procedures shall identify system states that warrant the NYISO to invoke emergency transfer criteria”.

Mr. Clayton's concern that ETC can only be invoked only after a Major Emergency is declared (see D.1 *Mitigation of Major Emergencies, R1.1*) may not be addressed by the proposed PRR130. Mr. Grant stated that D.1 *Emergency Operations* addressed real time issue and C.1 *Establishing Operating Transfer Capabilities* addresses what can be done to avoid real time issues.

Mr. Hochberg stated that there is an inconsistency in the provided PRR130 as the revised R2 talks about “system states” and the associated Measure talks about “system conditions” – two different things. Mr. Grant agreed to change the language in the associated measure to state “system states”.

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The following discussion – related to PRR130 – occurred after Agenda Item 3.1.6
Mr. Wes Yeomans and Mr. Aaron Markham joined RRS Meeting.

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Mr. Clayton provided a short background discussion on this issue. Mr. Clayton also stated that it is not the wish of RRS to take away flexibility from NYISO Operations as it relates to the utilization of ETC.

Mr. Clayton asked the NYISO what actions are taken before ETC is declared. Mr. Yeomans stated that the system is setup – day-ahead – with a secured plan going in the next day utilizing day-ahead market tools. This plan is then distributed to all TOs where it could be adjusted by local needs. The local TOs would look into local generation resources that could solve local needs. ETC is not part of day-head plan. ETC is not considered a substitute for out of merit generation.

Between day-head and real-time, system events such as loss of a generator or a transmission line (forced outage), could affect the secured commitment for the next day, and the NYISO has capability to bring a unit out of merit on-line (or recall a transmission line). ETC is not considered a substitute for out of merit generation. The NYISO would not wait 5 minutes into real time and would not let the 5 minute market (dispatch) address it.

In real-time, every 15 minutes the NYISO solves – looking ahead two and half hours with updated load forecast, transmission outages, generation outages and interchange schedules - transmission constraints (based on the Normal Transfer Criteria). If a need is identified, the NYISO will utilize quick start up generation and/or adjust interchange schedules. ETC is still not considered a proper action.

In real-time, every 5 minutes, the NYISO solves – looking ahead one hour with updated load forecast, transmission outages, generation outages and interchange schedules - transmission constraints (based on the Normal Transfer Criteria). If a need is identified, the NYISO will utilize quick start up generation and/or adjust interchange schedules. Again, ETC is still not considered a proper action.

Operator interaction is present through our all these processes.

There is a very small exception where the ETC could be declared; on facilities that are allowed to be operated up to their STE rating, as there is no time to bring it back below the applicable ratings.

Mr. Hochberg stated that it seems that the NYISO, in its Operational Manual, allows ETC to be declared first before a Major Emergency is declared. Then the NYISO will sit in the ETC state.

Mr. Markham stated that the NYISO objective is to always be in a Normal state. If it is projected, that for a contingency, a facility is over STE rating the NYISO will take all reasonable action to get the facility back under the applicable rating. The NYISO will not ignore it.

For a Stuck Breaker or Loss of Tower contingency, where a facility is projected to be above its STE rating, ETC will be declared but there is no time requirement to declare Major Emergency. For a single facility contingency, where a facility is projected to be above its STE rating, the NYISO declares ETC immediately. After 30 minutes of exceedance the NYISO will declare Major Emergency.

Mr. Clayton asked why the just described distinction exists. Mr. Markham stated that NERC does not require the system to be operated to a Stuck Breaker or a Loss of Tower contingency. NPCC decided to add additional requirements and 'wants' Operators to secure to these contingencies (take action to secure), but there is no timer. NPCC 'wants' the Operators to do everything up to load shedding to secure to these contingencies.

Mr. Markham also stated that although the NYISO may have invoked ETC, the market is still solving based on the Normal Transfer Criteria. ETC is only an Operator (verbal) declaration. No action is taken in the EMS to invoke Emergency Transfer Limits.

Mr. Clayton stated that we have two issues: 1) timing (ETC being invoked), and 2) ETC being invoked in both Warning and Emergency States. Mr. Clayton stated that PRR130 is addressing item 2.

Mr. Clayton asked the NYISO if load shedding is armed when ETC is declared. The NYISO stated that there are direct discussions with local TOs toward appropriate actions (including load shedding), but local TOs may offer other solution (even shedding load pre-contingency).

Mr. Clayton asked the NYISO what happens when ETC is in place for 3 hours. The NYISO stated that there are some cases where you may be in an unsecured state for a few minutes, and that due to a load cycle, are back into an unsecured state. No need to go back and forth with declaring ETC.

Mr. Clayton asked the NYISO why in the operating world there are conditions where a facility could be loaded above STE rate, when in the planning world this is not allowed. Mr. Yeomans stated that it is hard to reconcile planning and operating worlds. Day-to-day the system may already be in an N-5 state, well beyond Transmission Planning criteria.

Mr. Clayton thanked Mr. Wes Yeomans and Mr. Aaron Markham for answering questions from RRS. **Action Item 199-7:** RRS will table discussion toward PRR130 until the next RRS meeting (3/31/2016).

3.1.5 PRR131 I.6 Modeling & Data (Dual fuel testing requirements)

Mr. Paszek provided a short description of this PRR and what changes have been applied since the last RRS meeting. Mr. Clayton stated that the key to this PRR is that the Generator Owner can substitute a real-time dual fuel event for a required dual fuel test. Mr. Adamson provided few editorial comments.

Ms. Rodriguez asked if this rule would be applicable to all gas turbines even if their size is < 20 MVA. Mr. Paszek stated that within Con Edison service area there are generation facilities (sites) that – in an aggregate – represent 100 MW, but in effect these sites are made up of multiple Gas Turbines that are less than 20 MVA. As a compromise, the Requirement 2 would be rewritten to include a cut off – as follows: “*R2. The NYISO shall have procedures requiring all Generator Owners of dual fuel units, that have generation resources connected at one site with an aggregate capacity of more than or equal to 75 MVA (gross nameplate rating), to test the unit’s dual fuel capability in each capability period as follows:*”.

There was a short discussion toward aspects of payments to Generator Owners if they failed dual fuel test, and if Requirement R4 is required at all. **Action Item 199-4:** The NYISO to review NYISO OATT in order to establish an existing payment structure that would be applicable to PRR131.

Action Item 199-5: Mr. Paszek to re-write, per comments received, PRR 131 Modeling & Data (Duel Fuel Testing).

3.1.6 PRR 132 I.4, Transmission Data (Clarification of Material error)

Mr. Clayton provided a short description of this PRR and what changes have been applied since the last RRS meeting. The PRR addresses two directives from NYSRC EC: 1) to clearly and objectively identify non-compliant data error submission; and 2) to consider any other modifications the RRS deems necessary.

Mr. Grant provided few additional comments: 1) with RRS Members' concurrence the reference to "maintain procedures" was removed from R1.7; 2) with RRS Members' concurrence the definition of Material Impact (Under R1.7) was revised to state: "The NYISO assessment identifies a reliability violation on the NYS Bulk Power System within the current Capability Year". Few additional minor editorial comments were provided and applied.

Action Item 199-5: Mr. Clayton to re-write, per comments received, PRR 132 I.4, Transmission Data.

3.2. Discussion Items

3.2.1 NYSRC Exception #4 rescission request

Mr. Clayton provided a short description of this request and what changes have been applied since the last RRS meeting. National Grid requested a removal of Exception #4 to the NYSRC Reliability Rules. The Exception #4 states: "*National Grid is fully responsible for monitoring all National Grid 345/115 kV, 345/230 kV, and 230/115 kV transformer overloads and contingency overloads. The NYISO notifies National Grid of any overloads and contingency overloads it detects, but does not invoke these limits unless requested to do so by National Grid.*" Exception #4 is applicable to NYSRC Reliability Rule C.1 and it was approved on October 25, 1979.

Exception #4 is no longer valid due to upcoming NYISO – TO agreements related to the TOP registration (i.e. under NYISO Operational Control). The NYISO stated that it does not object to the removal of this exception.

NYSRC Exception #4 to the Reliability Rules rescission request was approved (by consensus) to NYSRC Executive Committee for consideration.

3.3 Bucket List

There is nothing new to report.

4. NPCC Directories

Mr. Clayton attended NPCCRCC meeting, and provided RRS with two items of interest: 1) NPCC TFCP started a discussion toward revising NPCC A-10 Document *Classification of Bulk Power System Elements*, and 2) ISO-NE presented a Presentation toward the *Impact of Distributive Generation on the Reliability of the Transmission System*. Mr. Clayton stated that he'll bring this up the NYSRC EC so that the NYISO does a similar study.

5. NERC SARS/Organization Standards

5.1 NERC Standard Tracking

Mr. Paszek commented that line item “Real-time Reliability Monitoring & Analysis Capabilities (IRO-018-1, TOP-012-2)” should state “Real-time Reliability Monitoring & Analysis Capabilities (IRO-018-1, TOP-010-1)”

6. Additional Agenda Items

6.1 2015 RRS Report

Mr. Clayton provided a short description of the 2015 RRS Report and what changes have been applied since the last RRS meeting.

The 2015 RRS Report was approved (by consensus) to NYSRC Executive Committee for consideration.

6.2 REV potential impact on NYS BPS reliability

Mr. Clayton restated the fact that he will bring up to the NYSRC EC a request for the NYISO to do a study toward *Impact of Distributive Generation on the Reliability of the Transmission System*. See Agenda Item 4.

Mr. Clayton also recommended that RRS develops a statement that would encompass the following thought: “Whatever the REV does it will not adversely impact Transmission System Reliability”

6.3 Approval of NYSRC Procedure for NYCA Transmission Reviews

The NYSRC Procedure for NYCA Transmission Reviews – with minor editorial changes provided by the NYISO – was approved (by consensus) to NYSRC Executive Committee for adoption.

7. Reports

7.1 NYSRC EC Meeting Report

There is nothing to report as it relates to RRS.

7.2 NYSRC ICS Meeting Report

The ICS is preparing assumptions (white papers) toward 2017 IRM study (target date: May/June 2016).

Meeting ended at 2:50 PM.

Next Meeting #200

Thursday, March 31, 2016; 9:30 am @ NYSERDA, 17 Columbia Circle, Albany