Assess Transmission Future Needs Standard Drafting Team

Wednesday, May 02, 2007

Conference Call Notes

1. Administrative Items

a. Introductions and Quorum

The call was brought to order by Yury Tsimberg, Acting Chair, at 1100. Call participants were:

Darrin Church	Tom Gentile	Doug Hohlbaugh
Bob Jones	Tom Mielnik	Bernie Pasternack
Bob Pierce	Chifong Thomas	Yury Tsimberg, Acting Chair
Bob Williams	Bill Harm, Observer	Doug Powell, Observer
Hari Singh, Observer	Ed Dobrowolski, NERC	

A quorum was not achieved.

b. NERC Antitrust Compliance Guidelines – Ed Dobrowolski

There were no questions raised concerning the NERC Antitrust Compliance Guidelines.

c. Review Meeting Agenda & Objectives

The main objective of this conference call was to continue the work begun in Chicago designed to lead us to consensus for meeting the timeline for the initial posting of the revised standard with a target date of June 2007.

2. Report from Sub-teams

a. Steady State – Chifong Thomas

Chifong Thomas sent out a new table with revised column headings based on the discussions in Chicago.

She tried to eliminate footnotes through the utilization of additional columns. Events may be grouped together in the final table based on their probabilities. If we don't group things together in a logical fashion, the table will get too large and may cause confusion.

Specific comments on the table headings follow:

- o Column 2: delete "fault"

- o Column 3: this column is not really needed for steady state but will be left in place for consistency with the stability table
  - Do column headings need to be exactly the same for steady state and stability? It would be nice if we could have identical column headings for consistency and common look and feel, but not if it is going to cause confusion or make the tables any harder to interpret. Subsequently, we agreed to have the same column headings for the columns to the left of the green highlighted Probability Contingency Event column and different column headings for the columns to the right.
- o Column 5: may be changed from "delayed" to "backup" or expanded to better explain what the heading means
  - If we do anything here, it may necessitate a change from "normal" to "primary" in column 4.
- o Column 7: this column will be deleted in the final table.
- o Column 8: delete "A/R"
  - Any language concerning ratings should be consistent with FAC. If not, we need to notify the appropriate team.
- o Column 9: "Post Transient Voltage Deviation" needs to be defined and a time frame should be supplied in the heading
  - Should the term transient even appear in a steady state table? Should we just use contingency instead? It is probably okay to leave transient in the heading as long as it is spelled out that we are talking about time prior to any manual actions taking place.
  - Not clear whether a specific amount of voltage deviation from the pre-contingency level should be specified in the standard. An alternative may be to state that the voltage at all buses should remain within the prescribed limits (to be determined by the individuals TPs). In the meantime, a new column stating that should be added to the table anyhow.
- o Column 10: the column heading should change to something like "Generation rejection is allowed" with the explanation that what is referred to here is not re-dispatch related generation output, but rather action in the same timeframe as voltage changes in column 9
- o Column 11: delete "necessarily"
  - 1) Are load curtailment, generator tripping, and firm load tripping all treated the same? 2) Do we need to consider interruptible load? No consensus was reached and these two issues will need to be discussed at the Tampa meeting.

AI – Chifong Thomas to revise the table headings accordingly.

b. Stability – Bob Jones

Chifong Thomas also distributed a stability table where she was attempting to use the same column headings as were used in the steady state table. The Stability Sub-team feels that this will be okay for the first six columns but that it won't work after that point. They also feel that they will need to continue to utilize footnotes in their table. It was agreed that the column headings should be kept as simple as possible and that footnotes will only be used for definitions and not policy or performance.

Bob Jones will create a hybrid table using columns 1–6 from the steady state table and making new column headings thereafter. He will distribute this hybrid prior to the conference call on May 9th.

AI – Bob Jones will create a hybrid stability table and distribute it to the team by the end of the week.

In the text that Bob distributed prior to the call, red font means that this text was changed based on discussions of the entire SDT in Chicago while yellow highlighting means that the sub-team discussions indicated a change was needed. Members should send any comments on this text to the list server by the end of the week for use by the Language Sub-team. The sub-team still feels that separate sections will be required for plant stability and system stability, although there could be some common requirements.

AI – Members are to review the text changes made by the Stability Sub-team and distribute comments to the list server by the end of the week.

The revised table is attached to these notes as **Attachment B**.

c. Language – Bill Harm

The Language Sub-team did not have any new material for review. They are planning on having conference calls with WebEx capability on May 9th and May 16th between 1400 and 1700 EDT; Doug will make arrangements to set up the WebEx. While these calls are primarily to be working sessions for the sub-team, all SDT members are welcome to join the calls. Bill and Doug will send out the call-in and log on information separately. There will be no call on May 8th as previously discussed. The revised text will be sent to Ed no later than the end of day on May 17th so that it could be delivered to all the AFTNSDT members prior to the May 22nd meeting in Tampa.

3. Discuss items left over from Chicago

There were several open items from the Chicago meeting. Time permitted discussion of only the following items:

- New technologies: could be included in corrective action plans
- Asset condition assessments: not considered as an issue for TPL standards
- Short circuit analysis: probably not part of TPL, but should be handled in a separate standard
- Duration of the manual adjustment period: not resolved, to continue discussion in Tampa
- Measures for the standards: something more than just doing annual assessments and then passing to others to implement corrective plan, but less than full responsibility and noncompliance penalties for not having corrective actions implemented. A meaningful measure recognizing limitations of what TPs can do should be developed: another item for Tampa or a question to be posted.
- There is a need to define at which point in time along the project implementation time line: 1) new facilities should be included in the basecases and 2) recognizing that the required in-service date will not be met so that an alternative temporary action should be developed until the permanent corrective action is put in place.

4. Continuing Work Assignments

No changes were made to work assignments.

5. Schedule Next Meetings

    a. Tuesday, May 22, 2007 starting at 0800 EDT through Wednesday, May 23, 2007 at 1200 EDT in Tampa, Florida. Please be prepared to stay until the end of the meeting.

    b. Wednesday, July 18, 2007 starting at 0800 PDT through Thursday, July 19, 2007 at 1700 PDT in San Francisco, California, hosted by PG&E. Please be prepared to attend the entire meeting. Hotel information has been distributed. There is no block of rooms set aside at any of the hotels so you are encouraged to make your reservation early. Remember to ask for the PG&E rate.

6. Review Action Items and Schedule — Ed Dobrowolski

The following action items were developed during this call:

- o Chifong Thomas to revise the table headings accordingly.
- o Bob Jones will create a hybrid stability table and distribute it to the team by the end of the week.
- o Members are to review the text changes made by the Stability Sub-team and distribute comments to the list server by the end of the week.

No changes were made to the revised schedule developed after the Chicago meeting.

7. Adjourn

Yury Tsimberg, Acting Chair, adjourned the call at 1400.

DRAFT – Example – for discussion only

Transmission System Standards – <u>Steady State</u> Assessment - Planning and Extreme Testing

Category	Contingency Description	Initiating Event	Normal Clearing	Delayed Clearing (Protection failure, stuck breaker)	Elements Removed	Probability of Contingency Event / (or Unavailability?)	Performance Requirements						
							Maximum Thermal Loading	Post Transient Voltage Deviation	Generator removed due to Generator Relay Protection or SPS	Interruption of Firm Transfer (does not result in loss of load)	Load Loss Allowed		Voltage Instability/ Cascading/ Unplanned and Uncontrolled Islanding Allowed
											Consequential	Non-Consequential	
Planning	Pre-Contingency – All anticipated Facilities in service	N/A	N/A	N/A	N/A	N/A	≤ Appropriate Continuous Rating	N/A.	No	No	No	No	No
	Loss of a Generator	SLG/ DLG/ TLG/ without Fault	√		1	≥ 0.33	≤ Appropriate Limited Time Rating	Not to exceed 5% at any Bulk System bus.	No	No	Yes	No	No
	Loss of a Generator	SLG/ DLG/ TLG/ without Fault	√		2 or more		≤ Appropriate Limited Time Rating	Not to exceed 5% at any Bulk System bus.		Allowed	Yes	No	No

Category	Contingency Description	Initiating Event	Normal Clearing	Delayed Clearing (Protection failure, stuck breaker)	Elements Removed	Probability of Contingency Event / (or Unavailability?)	Performance Requirements						
							Maximum Thermal Loading	Post Transient Voltage Deviation	Generator removed due to Generator Relay Protection or SPS	Interruption of Firm Transfer (does not result in loss of load)	Load Loss Allowed		Voltage Instability/ Cascading/ Unplanned and Uncontrolled Islanding Allowed
											Consequential	Non-Consequential	
	Loss of a Generator	SLG/ DLG/ TLG/ without Fault		√	2 or more		≤ Appropriate Limited Time Rating	Not to exceed 5% at any Bulk System bus.		Allowed	Yes	Yes	No
	Loss of a generator followed by loss of another generator following a manual system adjustment	SLG/ DLG/ TLG/ without Fault	√		2 or more	≥ 0.33	≤ Appropriate Limited Time Rating	Not to exceed 10% at any Bulk System bus.	Yes – Generation removed - Not to exceed ??? [Question: Should there should be a limit to the generation removed due to an Event?]	Allowed	Yes	Yes	No
	Loss of a generator followed by loss of another generator prior to manual system adjustment	SLG/ DLG/ TLG		√	2 or more	0.033 – 0.33	≤ Appropriate Limited Time Rating	May exceed 10% at any Bulk System bus	Yes – Generation removed - Not to exceed ??? [Question: Should there should be a limit to the generation removed due to an Event?]	Allowed	Yes	Yes	No
Extreme Testing						0.0033 – 0.033	May exceed Appropriate Limited Time Rating	May exceed 10% at any Bulk System bus	Yes	Allowed	Yes	Yes	No

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Category	Contingency Description	Initiating Event	Normal Clearing	Delayed Clearing (Protection failure, stuck breaker)	Elements Removed	Probability of Contingency Event / (or Unavailability?)	Performance Requirements						
							Maximum Thermal Loading	Post Transient Voltage Deviation	Generator removed due to Generator Relay Protection or SPS	Interruption of Firm Transfer (does not result in loss of load)	Load Loss Allowed		Voltage Instability/ Cascading/ Unplanned and Uncontrolled Islanding Allowed
											Consequential	Non-Consequential	
						< 0.0033	May exceed Appropriate Limited Time Rating	May exceed 10% at any Bulk System bus	Yes	Allowed	Yes	Yes	Yes

DRAFT – Example – for discussion only

Transmission System Standards – <u>Stability</u> Assessment - Planning and Extreme Testing

Category	Contingency Description	Initiating Event	Normal Clearing	Delayed Clearing (Protection failure, stuck breaker)	Elements Removed	Probability of Contingency Event / (or Unavailability?)	Performance Requirements						
							System Stable and Dynamic Voltages within Acceptable Limits as defined by **TO? TP?**	Generation Loss of Synchronism without Relay Protective action (Maximum MW Allowed)	Generator removed due to Generator Relay Protection or SPS	Interruption of Firm Transfer (does not result in loss of load)	Load Loss Allowed		Instability/ Cascading/ Unplanned and Uncontrolled Islanding?
											Consequential	Non-Consequential	
Planning	Pre-Contingency – All anticipated Facilities in service	No	N/A	N/A	N/A	N/A	Yes	No	No	Not allowed	No	No	No
	Loss of a Generator	SLG	√		1	≥ 0.33	Yes	No	Yes – Not to exceed spinning reserve	Not allowed	Yes	No	No
	Loss of a generator	No	√		1	≥ 0.33	Yes	No	Yes – Not to exceed spinning reserve	Not allowed	Yes	No	No
	Loss of a generator followed by loss of another generator following a manual system	SLG/ without Fault followed by 2nd SLG/ without Fault	√		2 or more	≥ 0.33	Yes	No	Yes – Not to exceed ???	Yes	Yes	No	No

Category	Contingency Description	Initiating Event	Normal Clearing	Delayed Clearing (Protection failure, stuck breaker)	Elements Removed	Probability of Contingency Event / (or Unavailability?)	Performance Requirements						
							System Stable and Dynamic Voltages within Acceptable Limits as defined by **TO? TP?**	Generation Loss of Synchronism without Relay Protective action (Maximum MW Allowed)	Generator removed due to Generator Relay Protection or SPS	Interruption of Firm Transfer (does not result in loss of load)	Load Loss Allowed		Instability/ Cascading/ Unplanned and Uncontrolled Islanding?
											Consequential	Non-Consequential	
	Loss of a generator followed by loss of another generator prior to manual adjustment	SLG		√	2 or more	0.033 – 0.33	Yes	Yes	Yes – Not to exceed ???	Yes	Yes	Yes	No
Extreme Testing						0.0033 – 0.033	Yes	Yes	Yes	Yes	Yes	Yes	No
						< 0.0033	Yes	Yes	Yes	Yes	Yes	Yes	Yes