

SPP TLR 5 Investigation Report
Flowgate 15882
(Longwood – Noram 138 kV for the loss of Longwood – Lieberman 138 kV)
(Temp05)
TLR Level 5: June 23, 2009
Report Issued: July 14, 2009

1. Description of purpose/cause of hold/curtailment.

This report is submitted in accordance with the NERC Transmission Loading Relief Investigation Procedure for the Level 5 TLR event that occurred on Flowgate 15882 on June 23, 2009. Flowgate 15882 is an SPP flowgate. The Level 5 TLR was in effect from 19:00 until 22:00 CST on June 23, 2009. Projected post-contingent flows on the Longwood - Noram 138 kV line exceeded the SOL. This flowgate was created in response to a request from the balancing authority due to a contingency violation brought about by a forced outage of Arsenal Hill #5 generating unit.

2. Facility/flowgate limitations and flows at the time the TLR was initiated.

At the time the Level 5A TLR was issued, the Limiting Element was rated at 234 MVA. Flow on the Limiting Element was 190 MVA. Flow on the Contingent Element was 110 MVA. The LODF was approximately 24%. Post-contingent flow on the Limiting Element was approximately 216 MVA.

3. TLR levels, timing, and relief requested amounts.

TLR levels, timing and relief requested amounts are shown in the Event History and NERC TLR Log on pages 3-5.

4. Transmission and generation outages or changes from prediction that may have contributed.

The forced outage of Arsenal Hill #5 due loss of the unit step-up transformer directly impacted this TLR.

5. Procedures implemented prior to hold/curtailment.

There were no non-firm transactions that impacted the flowgate by more than 5%. The TLR was escalated to a Level 5 in order to curtail firm transactions and firm market flow to alleviate loading on the flowgate.

6. The initial investigation shall compare all transaction curtailment lists as generated by the IDC with the list of transactions flowing as determined by the IDC (Whole Transaction Lists) both before and after curtailment. The reasons for any transactions that were excluded from curtailment shall be provided. For those transactions not curtailed, the Reliability Authority will identify those entities and any affiliation with said entities.

There were no known transactions excluded from curtailment for this TLR.

7. List of known transactions not in the IDC with Transaction Contribution Factors greater than the curtailment threshold and actions taken to curtail such transactions.

There were no known transactions not in the IDC.

8. Excerpts from the RA Operations Log containing information relevant to the TLR event.

Information was provided to Reliability Coordinators through the IDC and the RCIS. Also the SPP Reliability Coordinators logged information describing the actions taken at each issuance of the TLR, see page 6. Times in the RC Log are CDT.

9. Flowgate limitations as identified by security analysis processes conducted by the Reliability Authority for the day prior to the TLR event.

The next day process did not indicate an issue with this flowgate based upon conditions at the time of the daily peak.

10. State Estimator snapshots and security analysis, including any contingency analysis or stability analysis, along with any other recorded data indicating need for TLR.

The SPP Reliability Coordinator was monitoring their state estimator, RTCA and RTLODF applications for current flowgate loading and other potential issues during this time. eDNA data historian recorded all line flows before, during and after the Level 5 TLR event, see page 7.

11. ATC limitations before, during, and after the TLR event.

SPP Tariff Administration grants transmission service using an AFC process. This process evaluates each transmission request on a case by case basis. SPP Tariff Administration was not granting any transmission requests that impacted the congested flowgate by 3 % or greater at the time of the Level 5 TLR.

12. Description of actions taken to avoid future hold/curtailments.

This TLR was caused by a combination of generation patterns, load, and system flows in the Southwest Shreveport area. Lieberman, the only significant increment unit for this flowgate, has an inadequate ramp rate to follow loading in the area. An op-guide has been put in place that requires Lieberman to start raising their output prior to the forecasted load. The forced outage of Arsenal Hill #5 also contributed to this TLR.

13. Provide IDC generated Congestion Management Reports showing transaction curtailment list and Control Area NNL (network and native load) curtailment responsibility.

Congestion Management Reports for each issuance of the TLR have been reviewed and are archived in the IDC. These screen shots have not been included to reduce the size of this report.

14. Re-dispatch actions taken.

SPP EIS Market redispatch was implemented during the entire TLR event. Firm Market Flow was reduced on the flowgate as reported in the TLR Event History and NERC TLR Log on pages 3-5.

TLR Event History

15882 - Temp 05 Longwood-Noram 138kV flo Longwood-Lieberman 138kV

Status	TLR Level	TLR Date (CST)	TLR Confirm Time (CST)	Run Time (CST)	Requested Relief	Remaining Relief	Relief Provided	Total Cuts	
								Tags	MW
SUPERSEDED	3B	06/23/2009 16:20	06/23/2009 16:10	06/23/2009 16:09:32	30.0	30.0	0.0	0	0
SUPERSEDED	3A	06/23/2009 18:00	06/23/2009 17:26	06/23/2009 17:26:13	17.0	12.0	5.0	0	0
SUPERSEDED	5A	06/23/2009 19:00	06/23/2009 18:26	06/23/2009 18:26:17	34.0	25.0	9.0	0	0
SUPERSEDED	5A	06/23/2009 20:00	06/23/2009 19:28	06/23/2009 19:28:29	40.0	28.0	12.0	0	0
SUPERSEDED	5A	06/23/2009 21:00	06/23/2009 20:28	06/23/2009 20:28:00	15.0	1.0	14.0	0	0
SUPERSEDED	3A	06/23/2009 22:00	06/23/2009 21:30	06/23/2009 21:29:49	18.0	2.0	16.0	0	0
TERMINATED	0	06/23/2009 22:40	06/23/2009 22:26	06/23/2009 22:26:23	0.0	0.0	0.0	0	0

07/22/2009 06:47:54 (CST)

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TLR Schedule Totals

Priority	Schedule			
	Total Tags Cut / Hold	IDC Cut MW	RC Cut Acknowledge MW	Hold MW
0	0	0	0	0
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
Total	0	0	0	0

TLR Market Flow Totals

Market	Type	Market Relief	
		IDC MW	RC Ackn MW
SWPP	ED-2	0.0	0.0
	ED-6	0.0	0.0
	FIRM-7	56.0	56.0
Total for SWPP		56.0	56.0
Total		56.0	56.0

07/22/2009 06:49:01 (CST)

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	A	B	C	D
1	Reliability Log for June, 23			2009
2	Time	Initials	Comments	
101	1826	WRG	Re-Issued TLR Level 3A on Temp 5 flgt # 15882	
108	1926	WRG	Issued TLR Level 5A on Temp 5 flgt # 15882 Level 5A for Feasibility	
119	2028	WRG	Re-Issued TLR Level 5A on Temp 5 flgt # 15882 Level 5A for Feasibility	
125	2128	WRG	Re-Issued TLR Level 5A on Temp 5 flgt # 15882 Level 5A for Feasibility	
132	2229	WRG	Re-Issued TLR Level 3A on Temp 5 flgt # 15882	
135	2326	WRG	Issued TLR Level 0 on Temp 5 flgt # 15882	
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