

SPP TLR 5 Investigation Report
NWTPATLYDVAL
(Northwest Texarkana – Patterson 138 kV for the loss of Lydia - Valliant 345 kV)
TLR Level 5: August 10, 2010
Report Issued: December 13, 2010

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 5042 on August 10, 2010. Flowgate 5042 is an SPP flowgate. The Level 5 TLR was in effect from 8:00 until 9:40 CST on August 10, 2010. Projected flows on the Northwest Texarkana - Patterson 138 kV line were expected to exceed the SOL.

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 261 MVA. Flow on the Limiting Element was 143 MVA. Flow on the Contingent Element was 499 MVA. The LODF was approximately 21%. Post-contingent flow on the Limiting Element was approximately 248 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.

There were no unplanned outages that contributed to this TLR.

5. Procedures implemented prior to hold/curtailment.

There were no non-firm transactions or market flows impacting the flowgate by more than 5% prior to the level 5 TLR. The TLR was escalated to a Level 5 in order to curtail firm transactions and firm market flow to relieve loading.

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 study 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 South to North flows on the transmission system in this region. Loading sometimes requires escalating to a Level 5 TLR in order to obtain sufficient relief to reduce overloads.

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 and non-firm Market Flows were reduced on the flowgate as reported in the TLR Event History and NERC TLR Log on pages 3-5.

Event History

Issuing RC: SWPP
Flowgate: 5042 - NwtPatLydVal
Event Begin: 2010-08-10 06:04
Event End: 2010-08-10 09:30
Event Duration: 3 Hours

TLR Level	TLR Date	TLR Confirm Time	Run Time	Requested Relief	Remaining Relief	Relief Provided	Total Cuts	
							Tags	MW
TLR Level 3B	08/10/2010 06:15	08/10/2010 06:04	08/10/2010 06:04:13	30.0	30.0	0.0	0	0
TLR Level 5A	08/10/2010 08:00	08/10/2010 07:28	08/10/2010 07:28:03	0.0	0.0	0.0	0	0
TLR Level 5A	08/10/2010 09:00	08/10/2010 08:31	08/10/2010 08:29:52	0.0	0.0	0.0	0	0
TLR Level 0	08/10/2010 09:40	08/10/2010 09:30	08/10/2010 09:29:28	0.0	0.0	0.0	0	0

Event Summary

FILE SAVED AS: SWPP_5042_20100810_0615.htm

Incident: SWPP_5042_20100810_0615	Date: 08/10/2010	Reliability Coordinator: SWPP
Initial Conditions: increasing load		
Flowgate: 5042 - NwtPatLydVal	Rating: 261	LODF: 21.16%
TLR Direction: Normal		
Effective StartTime: 08/10/2010 06:15	Effective EndTime: 08/10/2010 09:40	TLR Duration: 3 Hours and 25 Minutes

TLR Actions

Confirm Time	Level	Effective Hour	Priority	Schedule								NNL Relief			Market Relief				Flow			TLR Action Comments
				Total Tags Cut / Hold	IDC Cut		RC Cut Acknowledge		Hold		CA	IDC MV	RC Ackn MV	Type	Mkt	IDC MV	RC Ackn MV	Current	Post Cont.	Cont. Flow		
					MW	Relief	MW	Relief	MW	Relief												
Aug 10 06:04	TLR 3B	CURRENT		NONE								NONE			ED-2 ED-6 FIRM-7 Total	SWPP SWPP SWPP	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	148	288	571	N/A
		NEXT		NONE								NONE			ED-2 ED-6 FIRM-7 Total	SWPP SWPP SWPP	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0				
Aug 10 07:28	TLR 5A	NEXT		NONE								NONE			ED-2 ED-6 FIRM-7 FIRM-CREDIT Total	SWPP SWPP SWPP SWPP	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	143	248	499	N/A
Aug 10 08:31	TLR 5A	NEXT		NONE								NONE			ED-2 ED-6 FIRM-7 FIRM-CREDIT Total	SWPP SWPP SWPP SWPP	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	151	256	497	N/A
Aug 10 09:30	TLR 0	CURRENT		NONE								NONE			NONE				139	213	351	N/A

TLR Schedule Totals

Priority	Schedule			
	Total Tags Cut / Hold	IDC Cut MV	RC Cut Acknowledge MV	Hold MV
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 MV	RC Ackn MV
SWPP	ED-2	0.0	0.0
	ED-8	0.0	0.0
	FIRM-7	0.0	0.0
Total for SWPP		0.0	0.0
Total		0.0	0.0

Reliability Log for August, 10 2010

Time	Initials	Comments	
0704	LWB	Issued TLR level 3B on NwtPatLydVal flgt #5042.	
0828	LWB	Issued TLR level 5A on NwtPatLydVal flgt #5042---feasibility.	
0929	LWB	Issued TLR level 5A on NwtPatLydVal flgt #5042---feasibility.	
1029	LWB	Issued TLR level 0 on NwtPatLydVal flgt #5042---feasibility.	

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