

SPP TLR 5 Investigation Report
Flowgate 5078
(S. Coffeyville – Dearing 138 kV for the loss of Delaware – Neosho 345 kV)
(SCODEADELNEO)
TLR Level 5: December 17, 2008
Report Issued: January 12, 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 5078 on December 17, 2008. Flowgate 5078 is an SPP flowgate. The Level 5 TLR was in effect from 10:30 until 13:00 CST on December 17, 2008. Projected post-contingent flows on the S. Coffeyville – Dearing 138 kV line exceeded the SOL. The monitored element on this flowgate has a dynamic temperature dependent rating. TLR is issued dependent on this dynamic rating.

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

At the time the Level 5B TLR was issued, the Limiting Element was rated at 232 MVA. Flow on the Limiting Element was 124 MVA. Flow on the Contingent Element was 500 MVA. The LODF was approximately 19%. Post-contingent flow on the Limiting Element was approximately 217 MVA. Firm SPP Market flow was being redispatched to maintain flow so the TLR was escalated to Level 5 to curtail schedules.

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

TLRs 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.

Non-firm transactions had already been curtailed due to TLR action. The TLR was escalated to a Level 5 in order to curtail firm transactions and firm market flow.

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 CST.

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 system flows. Heavy south-to-north flows were experienced on December 17 due to cold weather to the north. Whenever transfers are heavy from south to north, this flowgate loads up. Level 5 TLR is sometimes needed to reduce loading.

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 Flow were reduced on the flowgate as reported in the TLR Event History and NERC TLR Log on pages 3-5.

TLR Event History 5078 - ScoDeaDelNeo

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	12/17/2008 06:15	12/17/2008 06:05	12/17/2008 06:04:57	30.0	1.4	28.6	5	461
SUPERSEDED	3A	12/17/2008 08:00	12/17/2008 07:34	12/17/2008 07:34:12	60.0	34.2	25.8	4	409
SUPERSEDED	3A	12/17/2008 09:00	12/17/2008 08:29	12/17/2008 08:29:27	71.0	42.9	28.1	5	460
SUPERSEDED	3A	12/17/2008 10:00	12/17/2008 09:31	12/17/2008 09:31:00	75.0	46.6	28.4	5	460
SUPERSEDED	5B	12/17/2008 10:30	12/17/2008 10:17	12/17/2008 10:16:58	0.0	0.0	0.0	0	0
SUPERSEDED	5A	12/17/2008 12:00	12/17/2008 11:27	12/17/2008 11:27:30	0.0	0.0	25.7	4	410
SUPERSEDED	3A	12/17/2008 13:00	12/17/2008 12:28	12/17/2008 12:27:37	0.0	0.0	11.5	3	186
TERMINATED	0	12/17/2008 13:35	12/17/2008 13:22	12/17/2008 13:22:35	0.0	0.0	0.0	0	0

01/12/2009 10:38:15 (CST)

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Event Summary

FILE SAVED AS: SWPP_5078_20081217_0615.htm

Incident: SWPP_5078_20081217_0615	Date: 12/17/2008	Reliability Coordinator: SWPP
Initial Conditions: load increasing		
Flowgate: 5078 - ScoDeaDelNeo	Rating: 232	LODF: 18.71%
TLR Direction: Normal		
Effective StartTime: 12/17/2008 06:15	Effective EndTime: 12/17/2008 13:35	TLR Duration: 7 Hours and 20 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 MW	RC Ackn MW	Type	Mkt	IDC MW	RC Ackn MW	Current	Post Cont.	Cont. Flow	
					MW	Relief	MW	Relief	MW	Relief											
Dec 17 06:05	TLR 3B	CURRENT	2-NH Total	5 / 0 5 / 0	461 513	28.6 28.6	461 461	28.6 28.6	0 0	0.0 0.0	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	145	258	604	N/A
		NEXT	2-NH 3-ND 6-NN Total	5 / 0 1 / 0 2 / 0 8 / 0	460 50 52 513	28.6 2.6 2.6 33.9	460 50 52 562	28.6 2.6 2.6 33.9	0 0 0 0	0.0 0.0 0.0 0.0	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				
Dec 17 07:34	TLR 3A	NEXT	2-NH Total	1 / 0 1 / 0	50 50	3.2 3.2	50 50	3.2 3.2	0 0	0.0 0.0	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	126	218	496	N/A
Dec 17 08:29	TLR 3A	NEXT	2-NH 3-ND Total	1 / 0 1 / 0 2 / 0	50 50 100	3.2 2.6 5.8	50 50 100	3.2 2.6 5.8	0 0 0	0.0 0.0 0.0	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	125	218	500	N/A
Dec 17 09:31	TLR 3A	NEXT	2-NH 3-ND Total	4 / 0 1 / 0 5 / 0	410 50 460	25.7 2.7 28.4	410 50 460	25.7 2.7 28.4	0 0 0	0.0 0.0 0.0	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	124	218	504	N/A
Dec 17 10:17	TLR 5B	CURRENT	NONE							NONE			ED-2 ED-6 FIRM-7 Total	SWPP SWPP SWPP	0.0 0.0 33.0 33.0	0.0 0.0 33.0 33.0	124	217	500	N/A	
		NEXT	2-NH Total	4 / 0 4 / 0	409 0	25.6 25.6	409 409	25.6 25.6	0 0	0.0 0.0	NONE			NONE							
Dec 17 11:27	TLR 5A	NEXT	2-NH Total	4 / 0 4 / 0	410 410	25.7 25.7	410 410	25.7 25.7	0 0	0.0 0.0	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	122	210	471	N/A
Dec 17 12:28	TLR 3A	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	114	194	431	N/A	
Dec 17 13:22	TLR 0	CURRENT	NONE							NONE			NONE				108	183	403	N/A	

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	24	2250	2250	0
3	3	150	150	0
4	0	0	0	0
5	0	0	0	0
6	2	52	52	0
7	0	0	0	0
Total	29	2452	2452	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	33.0	33.0
Total for SWPP		33.0	33.0
Total		33.0	33.0

01/12/2009 10:39:24 (CST)

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	A	B	C	D
1	Reliability Log for December, 17			2008
2	Time	Initials	Comments	
16	0604	RGH	Issued TLR level 3B on ScoDeaDelNeo #5078	
22	0734	RGH	Issued TLR level 3A on ScoDeaDelNeo #5078	
25	0829	RGH	Issued TLR level 3A on ScoDeaDelNeo #5078	
31	0931	RGH	Issued TLR level 3A on ScoDeaDelNeo #5078	
34	1016	RGH	Issued TLR level 5B on ScoDeaDelNeo #5078	
40	1127	RGH	Issued TLR level 5A on ScoDeaDelNeo #5078	
45	1227	RGH	Issued TLR level 3A on ScoDeaDelNeo #5078	
51	1322	RGH	Issued TLR level 0 on ScoDeaDelNeo #5078	
52	1639	RGH	Issued TLR level 3A on ScoDeaDelNeo #5078	
56	1727	RGH	Issued TLR level 3A on ScoDeaDelNeo #5078	
70	1825	LRG	Issued TLR level 3A on ScoDeaDelNeo #5078	
73	1925	LRG	Issued TLR level 3A on ScoDeaDelNeo #5078	
76	2026	LRG	Issued TLR level 3A on ScoDeaDelNeo #5078	
79	2126	LRG	Issued TLR level 3A on ScoDeaDelNeo #5078	
32	2216	LRG	Issued TLR level 0 on ScoDeaDelNeo #5078	
36				
37				
38				
39				
20				

5078 12-17-08

