

**SPP TLR 5 Investigation Report
Temp 13 Flowgate 16203
(Jenson Tap – Jenson Road 138 kV for the loss of Sunnyside – Lawton East 345 kV)
TLR Level 5: February 03, 2010
Report Issued: March 1, 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 16203 on February 03, 2010. Flowgate 16203 is an SPP flowgate that was built due to the system topology changes following a major ice storm in west of Oklahoma City. The Level 5 TLR was in effect from 20:45 until 23:00 CST on February 03, 2010. RTCA indicated that projected post contingent flows on the Jenson Tap – Jenson Road 138 kV line exceeded the SOL. The temporary flowgate was built and the TLR was implemented based on the results of the RTCA.

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 191 MVA. Flow on the Limiting Element was 138 MVA. Flow on the Contingent Element was 365 MVA. The LODF was approximately 12%. Post-contingent flow on the Limiting Element was projected to be approximately 182 MW.

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 numerous unplanned outages in western Oklahoma due to the ice storm.

5. Procedures implemented prior to hold/curtailment.

Non-firm transactions and market flows had been curtailed 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 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 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 pages 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 due to the unplanned outages in western Oklahoma caused by the ice storm. Since the temporary outages were the most significant factor, no additional actions were necessary.

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.

TLR Event History

16203 - TEMPORARY 13 - JNSJENSUNLAW

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	02/03/2010 19:55	02/03/2010 19:51	02/03/2010 19:50:09	50.0	42.3	7.7	2	65
SUPERSEDED	5B	02/03/2010 20:45	02/03/2010 20:36	02/03/2010 20:35:55	80.0	0.0	80.3	6	218
SUPERSEDED	5A	02/03/2010 22:00	02/03/2010 21:32	02/03/2010 21:30:51	25.0	0.0	45.0	0	0
SUPERSEDED	3A	02/03/2010 23:00	02/03/2010 22:26	02/03/2010 22:26:26	30.0	0.0	30.0	0	0
SUPERSEDED	3A	02/04/2010 00:00	02/03/2010 23:26	02/03/2010 23:26:15	0.0	0.0	0.0	0	0
TERMINATED	0	02/04/2010 00:40	02/04/2010 00:30	02/04/2010 00:30:07	0.0	0.0	0.0	0	0

03/01/2010 09:54:59 (CST)

OATI IDC Support Phone: 763-201-2010 Fax: 763-553-2813

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Event Summary

FILE SAVED AS: SWPP_16203_20100203_1955.htm

Incident:	SWPP_16203_20100203_1955	Date: 02/03/2010	Reliability Coordinator: SWPP
Initial Conditions:	Increased Flows due to Storm outages		
Flowgate:	16203 - TEMPORARY 13 - JNSJENSUNLAW	Rating: 191	LODF: 12.09%
TLR Direction:	Normal		
Effective StartTime:	02/03/2010 19:55	Effective EndTime: 02/04/2010 00:40	TLR Duration: 4 Hours and 45 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											
Feb 03 19:51	TLR 3B	CURRENT	3-ND 8-NN Total	1 / 0 1 / 0 2 / 0	15 50 130	1.7 5.9 7.7	15 50 65	1.7 5.9 7.7	0 0 0	0.0 0.0 0.0	NONE	NONE	NONE	NONE	NONE	151	202	423	N/A		
		NEXT	3-ND 8-NN Total	1 / 0 1 / 0 2 / 0	15 50 130	1.7 5.9 7.7	15 50 65	1.7 5.9 7.7	0 0 0	0.0 0.0 0.0	NONE	NONE	NONE	NONE	NONE	NONE					
Feb 03 20:36	TLR 5B	CURRENT	7-F Total	6 / 0 6 / 0	218 218	16.7 16.7	218 218	16.7 16.7	0 0	0.0 0.0	NONE	ED-2 ED-8 FIRM-7 Total	SWPP SWPP SWPP	0.0 39.0 24.6 63.6	0.0 39.0 24.6 63.6	138	182	365	N/A		
		NEXT	1-NS 7-F Total	1 / 0 5 / 0 6 / 0	15 202 218	1.7 15.4 17.1	15 202 217	1.7 15.4 17.1	0 0 0	0.0 0.0 0.0	NONE	NONE	NONE	NONE	NONE	NONE					
Feb 03 21:32	TLR 5A	NEXT	NONE							NONE	ED-2 ED-8 FIRM-7 FIRM-CREDIT Total	SWPP SWPP SWPP SWPP	0.0 45.0 0.0 0.0 45.0	0.0 45.0 0.0 0.0 45.0	119	153	288	N/A			
Feb 03 22:26	TLR 3A	NEXT	NONE							NONE	ED-2 ED-8 FIRM-7 Total	SWPP SWPP SWPP	0.0 30.0 0.0 30.0	0.0 30.0 0.0 30.0	123	155	289	N/A			
Feb 03 23:26	TLR 3A	NEXT	NONE							NONE	ED-2 ED-8 FIRM-7 Total	SWPP SWPP SWPP	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	101	132	262	N/A			
Feb 04 00:30	TLR 0	CURRENT	NONE							NONE	NONE				105	137	288	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	1	15	15	0
2	0	0	0	0
3	2	30	30	0
4	0	0	0	0
5	0	0	0	0
6	2	100	100	0
7	11	420	420	0
Total	16	565	565	0

TLR Market Flow Totals

Market	Type	Market Relief	
		IDC MW	RC Ackn MW
SWPP	ED-2	0.0	0.0
	ED-6	114.0	114.0
	FIRM-7	24.6	24.6
Total for SWPP		138.6	138.6
Total		138.6	138.6

03/01/2010 09:57:18 (CST)

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	A	B	C	D	E
1	Reliability Log for February, 3			2010	
2	Time	Initials	Comments	Wednesday	
3	1910	MRH	RTCA reporting JNSNT-JENSN 138kV fto of Sunnyside-Law ES 345kV line jumped up to 132%, SPS imports jumped to 585Mw. SPP-SE building a Temp FG.		
4	1947	MRH	Issued TLR Level 3B on Temp 13 JNSJENSUNLAW Flgt 16203, set effective limit at 185. MOI did not recognize this IDC TLR and had to create a manual TLR in MOI. SPP-SE called MOI IT Support.		
5	2035	MRH	Re-issued TLR 5B on Temp 13 JNSJENSUNLAW Flgt 16203 for LOADING and because MOI was not giving any relief on the FG because the TLR did not make it into CAT, SPP-IT Staff still working on the problem and is in contact with OATI. Meantime need to get FG d		
6	2059	MRH	Set Effective limit to 170, 10% greater than the FG Temp limit of 191, on Flgt Temp 13, IDC 16203.		
7	2104	MRH	FG Temp 13 continues to increase, in a TLR 5, not seeing any additional cuts in the market, set the effective limit to 150 in attempt to lower the RT flow on this FG, 150 is 22%...SPP-IT support claims there is nothing wrong with MOI.		
8	2130	MRH	Re-issued TLR Level 5A on Temp 13 JNSJENSUNLAW Flgt 16203		
9	2203	MRH	SPP-MOI-IT supports reports OATI said they found that the TLR 3B originally issued at 1947 did make it in to IDC but IDC did not forward it on to SPP and CAT/MOI. OATI is filed a ticket and will investigate in the morning.		
10	2226	MRH	Re-issued TLR Level 3A on Temp 13 JNSJENSUNLAW Flgt 16203, effective limit now set to 191, normal.		
11	2326	MRH	Re-issued TLR Level 3A on Temp 13 JNSJENSUNLAW Flgt 16203, effective limit now set to 191, normal.		
12					
13					
14	Reliability Log for February, 4			2010	
15	Time	Initials	Comments	Thursday	
16	0030	MRH	Re-issued TLR Level 0 on Temp 13 JNSJENSUNLAW Flgt 16203, effective limit now set to 191, normal.		
17					
18					
19					
20					

TEMP13_16203

— Post Cont. — Rating

