

**SPP TLR 5 Investigation Report
Flowgate 15613
(TEMPORARY 20)
Sikeston – Idalia 161 kV Line for the Loss of New Madrid – Tipton 161 kV Line
TLR Level 5: February 12, 2009
Report Issued: March 11, 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 15613 on February 12, 2009. Flowgate 15613 is an SPP flowgate. The Level 5 TLR was in effect from 2:00 until 2:55 CST on February 12, 2009. Projected post-contingent flows on the Sikeston – Idalia 161 kV line exceeded the SOL. This flowgate was created to control flows during outages around New Madrid. The New Madrid – Gibson 161 kV and the New Madrid – Portageville 161 kV lines were out during this event.

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 117 MVA. Flow on the Contingent Element was 317 MVA. The LODF was approximately 55%. Post-contingent flow on the Limiting Element was approximately 291 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 3-6.

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 7. 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 8.

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 this situation, no actions were taken to avoid future hold/curtailments.

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 3-6. Southwestern Power Administration (SPA) and AECl both redispatched generation due to NNL responsibility during this TLR. Upon implementation of an operating procedure whereby AECl would reduce generation at New Madrid in the event of a contingency, the Level 5 TLR was terminated

TLR Event History

15613 - Temp20 Sikeston-Idalia 161kV flo New Madrid-Tipton 161kV

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	02/12/2009 00:35	02/12/2009 00:21	02/12/2009 00:21:25	25.0	14.1	10.9	2	118
<u>SUPERSEDED</u>	5A	02/12/2009 02:00	02/12/2009 01:33	02/12/2009 01:29:41	64.0	0.0	64.5	10	111
<u>TERMINATED</u>	0	02/12/2009 02:55	02/12/2009 02:37	02/12/2009 02:37:39	0.0	0.0	0.0	0	0

03/11/2009 15:27:08 (CST)

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

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Event Summary

FILE SAVED AS: SWPP_15613_20090212_0035.htm

Incident:	SWPP_15613_20090212_0035	Date:	02/12/2009	Reliability Coordinator:	SWPP
Initial Conditions:	increasing flow				
Flowgate:	15613 - Temp20 Sikeston-Idalia 161kV f...	Rating:	234	LODF:	54.94%
TLR Direction:	Normal				
Effective StartTime:	02/12/2009 00:35	Effective EndTime:	02/12/2009 02:55	TLR Duration:	2 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												
Feb 12 00:21	TLR 3B	CURRENT	1-NS	1 / 0	15	1.4	15	1.4	0	0.0	NONE			ED-2	SWPP	0.0	0.0	74	249	320	N/A	
			2-NH	1 / 0	103	9.5	103	9.5	0	0.0	ED-6	SWPP	0.0	0.0								
			Total	2 / 0	133	10.9	118	10.9	0	0.0				FIRM-7	SWPP	0.0	0.0					
		NEXT	1-NS	1 / 0	14	1.3	14	1.3	0	0.0	NONE			ED-2	SWPP	0.0	0.0					
			2-NH	1 / 0	103	9.5	103	9.5	0	0.0	ED-6	SWPP	0.0	0.0								
			Total	2 / 0	133	10.9	117	10.9	0	0.0				FIRM-7	SWPP	0.0	0.0					
Feb 12 01:33	TLR 5A	NEXT	7-F	10 / 0	111	10.1	111	10.1	0	0.0	AECI	46.0	46.0	ED-2	SWPP	0.0	0.0	117	291	317	N/A	
			Total	10 / 0	111	10.1	111	10.1	0	0.0	SPA	9.0	9.0	ED-6	SWPP	0.0	0.0					
											Total	55.0	55.0	FIRM-7	SWPP	0.0	0.0					
											Total	0.0	0.0	FIRM-CREDIT	SWPP	0.0	0.0					
											Total	0.0	0.0	Total	0.0	0.0						
Feb 12 02:37	TLR 0	CURRENT	NONE								NONE			NONE				79	235	284	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	2	29	29	0
2	2	208	208	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	10	111	111	0
Total	14	346	346	0

TLR NNL Totals

CA	NNL Relief	
	IDC MW	RC Ackn MW
AECI	46.0	46.0
SPA	9.0	9.0
Total	55.0	55.0

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	0.0	0.0
Total for SWPP		0.0	0.0
Total		0.0	0.0

	A	B	C	D	
1	Reliability Log for February, 12			2009	
2	Time	Initials	Comments		
4	0021	AH	Issued TLR 3B on Temp 20, flgt#15613,curtailments.		
9	0129	AH	Issued TLR 5A on Temp 20, flgt#15613AECI 45.6 nml, SPA 8.8 nml, lowering Sikeston, 15mw.		
11	0203	AH	SPA advises there is an agreement between SPA and AECI if New Madrid -Tipton 161 trips AECI will drop up to 100 mw off New Madrid unit rapidly. Will take TLR 5 to level0 across the hr.		
13	0237	AH	Issued TLR 0 on Temp 20, flgt#15613		
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85					
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15613 - 2/12/2009

