

SPP TLR 5 Investigation Report
Flowgate 15323
(Harrington – Nichols 230 kV for loss of Harrington – Nichols 230 kV)
(TEMPORARY08)
TLR Level 5: September 21, 2008
Report Issued: October 21, 2008

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 15323 on September 21, 2008. Flowgate 15323 is an SPP flowgate. The Level 5 TLR was in effect from 16:20 until 20:00 CST on September 21. Projected post-contingent flows on the Harrington – Nichols 230 kV line exceeded the SOL. The flowgate was created due to the scheduled outage of the Harrington – Pringle 230 kV line. The monitored element on this flowgate has a dynamic temperature dependent rating. TLR was issued dependent on this calculated 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 617 MVA. Flow on the Limiting Element was 312 MVA. Flow on the Contingent Element was 308 MVA. The LODF was approximately 96%. Post-contingent flow on the Limiting Element was approximately 608 MVA.

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 3-6.

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

There were no unplanned outages.

5. Procedures implemented prior to hold/curtailment.

Curtailed non-firm transactions. TLR was escalated to level 5 upon redispatch of 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 CDT.

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

In the next day process, we did not see an issue with this flowgate, based off of the peak study.

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 the temporary outage of the Harrington – Pringle 230 kV line. 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.

TLR Event History

15323 - Temporary 08 Harrington - Nichols 230 kV ftlo Harrington - Nichols 230 kV

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	09/21/2008 10:35	09/21/2008 10:24	09/21/2008 10:24:26	30.0	27.0	3.0	0	0
SUPERSEDED	3A	09/21/2008 12:00	09/21/2008 11:26	09/21/2008 11:25:46	14.0	14.0	0.0	0	0
SUPERSEDED	3A	09/21/2008 13:00	09/21/2008 12:28	09/21/2008 12:28:02	20.0	20.0	0.0	0	0
SUPERSEDED	3A	09/21/2008 14:00	09/21/2008 13:28	09/21/2008 13:28:07	29.0	29.0	0.0	0	0
SUPERSEDED	3A	09/21/2008 15:00	09/21/2008 14:28	09/21/2008 14:27:38	41.0	41.0	0.0	0	0
SUPERSEDED	3A	09/21/2008 16:00	09/21/2008 15:28	09/21/2008 15:27:50	52.0	52.0	0.0	0	0
SUPERSEDED	5B	09/21/2008 16:20	09/21/2008 16:09	09/21/2008 16:08:39	15.0	0.0	15.0	0	0
SUPERSEDED	5A	09/21/2008 18:00	09/21/2008 17:26	09/21/2008 17:26:20	8.0	0.0	8.0	0	0
SUPERSEDED	5A	09/21/2008 19:00	09/21/2008 18:26	09/21/2008 18:26:03	18.0	0.0	18.0	0	0
SUPERSEDED	3A	09/21/2008 20:00	09/21/2008 19:28	09/21/2008 19:28:08	18.0	18.0	0.0	0	0
SUPERSEDED	3A	09/21/2008 21:00	09/21/2008 20:28	09/21/2008 20:27:38	26.0	26.0	0.0	0	0
SUPERSEDED	3A	09/21/2008 22:00	09/21/2008 21:26	09/21/2008 21:26:20	14.0	14.0	0.0	0	0
SUPERSEDED	3A	09/21/2008 23:00	09/21/2008 22:26	09/21/2008 22:25:42	13.0	13.0	0.0	0	0
SUPERSEDED	3A	09/22/2008 00:00	09/21/2008 23:34	09/21/2008 23:33:41	0.0	0.0	0.0	0	0
TERMINATED	0	09/22/2008 00:30	09/22/2008 00:19	09/22/2008 00:19:34	0.0	0.0	0.0	0	0

10/24/2008 15:02:14 (CST)

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Event Summary

FILE SAVED AS: SWPP_15323_20080921_1035.htm

Incident:	SWPP_15323_20080921_1035	Date:	09/21/2008	Reliability Coordinator:	SWPP
Initial Conditions:	Increasing load				
Flowgate:	15323 - Temporary 08 Harrington - Nich...	Rating:	617	LODF:	96.29%
TLR Direction:	Normal				
Effective StartTime:	09/21/2008 10:35	Effective EndTime:	09/22/2008 00:30	TLR Duration:	13 Hours and 55 Minutes

TLR Actions

Confirm Time	Level	Effective Hour	Priority	Schedule								NNL Relief			Market Relief				Flow		Cont. 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.			
					MW	Relief	MW	Relief	MW	Relief												
Sep 21 10:24	TLR 3B	CURRENT		NONE								NONE			ED-2	SWPP	0.0	0.0	327	632	317	N/A
		NEXT		NONE								NONE			ED-8	SWPP	3.0	3.0				
															FIRM-7	SWPP	0.0	0.0				
															Total		3.0	3.0				
Sep 21 11:26	TLR 3A	NEXT		NONE								NONE			ED-2	SWPP	0.0	0.0	316	610	306	N/A
															ED-8	SWPP	0.0	0.0				
															FIRM-7	SWPP	0.0	0.0				
															Total		0.0	0.0				
Sep 21 12:28	TLR 3A	NEXT		NONE								NONE			ED-2	SWPP	0.0	0.0	316	610	306	N/A
															ED-8	SWPP	0.0	0.0				
															FIRM-7	SWPP	0.0	0.0				
															Total		0.0	0.0				
Sep 21 13:28	TLR 3A	NEXT		NONE								NONE			ED-2	SWPP	0.0	0.0	316	610	306	N/A
															ED-8	SWPP	0.0	0.0				
															FIRM-7	SWPP	0.0	0.0				
															Total		0.0	0.0				
Sep 21 14:28	TLR 3A	NEXT		NONE								NONE			ED-2	SWPP	0.0	0.0	317	612	307	N/A
															ED-8	SWPP	0.0	0.0				
															FIRM-7	SWPP	0.0	0.0				
															Total		0.0	0.0				
Sep 21 15:28	TLR 3A	NEXT		NONE								NONE			ED-2	SWPP	0.0	0.0	311	600	301	N/A
															ED-8	SWPP	0.0	0.0				
															FIRM-7	SWPP	0.0	0.0				
															Total		0.0	0.0				
Sep 21 16:09	TLR 5B	CURRENT		NONE								NONE			ED-2	SWPP	0.0	0.0	312	608	308	N/A
		NEXT		NONE								NONE			ED-8	SWPP	0.0	0.0				
															FIRM-7	SWPP	21.0	21.0				
															Total		21.0	21.0				

Sep 21 17:26	TLR 5A	NEXT	NONE	NONE	ED-2 ED-6 FIRM-7 FIRM-CREDIT Total	SWPP SWPP SWPP SWPP	0.0 0.0 8.0 0.0 8.0	0.0 0.0 8.0 0.0 8.0	319	616	309	N/A
Sep 21 18:26	TLR 5A	NEXT	NONE	NONE	ED-2 ED-6 FIRM-7 FIRM-CREDIT Total	SWPP SWPP SWPP SWPP	0.0 0.0 18.0 0.0 18.0	0.0 0.0 18.0 0.0 18.0	312	603	303	N/A
Sep 21 19:28	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	311	600	301	N/A
Sep 21 20:28	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	322	623	313	N/A
Sep 21 21:26	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	320	618	310	N/A
Sep 21 22:26	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	316	609	305	N/A
Sep 21 23:34	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	295	571	287	N/A
Sep 22 00:19	TLR 0	CURRENT	NONE	NONE	NONE				274	524	260	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	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	3.0	3.0
	FIRM-7	47.0	47.0
Total for SWPP		50.0	50.0
Total		50.0	50.0

	A	B	C	D
1	Reliability Log for September, 21			2008
2	Time	Initials	Comments	
17	1124	GG	Issued TLR Level 3B on Temporary 8 - Harrington-Nichols 230kv flo Harrington-Nichols 230kv Flgt. 15323.	
19	1225	GG	Issued TLR Level 3A on Temporary 8 - Harrington-Nichols 230kv flo Harrington-Nichols 230kv Flgt. 15323.	
23	1328	GG	Issued TLR Level 3A on Temporary 8 - Harrington-Nichols 230kv flo Harrington-Nichols 230kv Flgt. 15323.	
26	1426	GG	Issued TLR Level 3A on Temporary 8 - Harrington-Nichols 230kv flo Harrington-Nichols 230kv Flgt. 15323.	
30	1527	GG	Issued TLR level 3A on Temporary 8 - Harrington-Nichols 230kv flo Harrington-Nichols 230kv Flgt. 15323.	
35	1627	GG	Issued TLR level 3A on Temporary 8 - Harrington-Nichols 230kv flo Harrington-Nichols 230kv Flgt. 15323.	
36	1708	GG	Issued TLR level 5B on Temporary 8 - Harrington-Nichols 230kv flo Harrington-Nichols 230kv Flgt. 15323. Feasibility	
42	1826	RST	Re-issued TLR level 5A on Temp 8-Harrington-Nichols 230kv flo Harrington-Nichols 230kv Flgt. 15323. Feasibility	
47	1926	"	Re-issued TLR level 5A on Temp 8-Harrington-Nichols 230kv flo Harrington-Nichols 230kv Flgt. 15323. Feasibility	
53	2028	"	Re-issued TLR level 3A on Temp 8-Harrington-Nichols 230kv flo Harrington-Nichols 230kv Flgt. 15323.	
57	2127	"	Re-issued TLR level 3A on Temp 8-Harrington-Nichols 230kv flo Harrington-Nichols 230kv Flgt. 15323.	
62	2226	"	Re-issued TLR level 3A on Temp 8-Harrington-Nichols 230kv flo Harrington-Nichols 230kv Flgt. 15323.	
68	2325	"	Re-issued TLR level 3A on Temp 8-Harrington-Nichols 230kv flo Harrington-Nichols 230kv Flgt. 15323.	
72				
73				
74				

15323 9-21-08

