

March 31, 2014

Ms. Kimberly D. Bose  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, DC 20426

**Re: NERC Full Notice of Penalty regarding Entergy,  
FERC Docket No. NP14-\_-000**

Dear Ms. Bose:

The North American Electric Reliability Corporation (NERC) hereby provides this Notice of Penalty<sup>1</sup> regarding Entergy, NERC Registry ID# NCR01234,<sup>2</sup> in accordance with the Federal Energy Regulatory Commission's (Commission or FERC) rules, regulations and orders, as well as NERC's Rules of Procedure including Appendix 4C (NERC Compliance Monitoring and Enforcement Program (CMEP)).<sup>3</sup>

Entergy is an integrated energy company engaged primarily in electric power production and retail distribution operations.<sup>4</sup> Entergy Corporation is the parent company headquartered in New Orleans, Louisiana. The overall Entergy corporate structure includes utility operating companies that generate, transmit, distribute, and sell electric power.

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<sup>1</sup> *Rules Concerning Certification of the Electric Reliability Organization; and Procedures for the Establishment, Approval, and Enforcement of Electric Reliability Standards* (Order No. 672), III FERC Stats. & Regs. ¶ 31,204 (2006); *Notice of New Docket Prefix "NP" for Notices of Penalty Filed by the North American Electric Reliability Corporation*, Docket No. RM05-30-000 (February 7, 2008). See also 18 C.F.R. Part 39 (2013). *Mandatory Reliability Standards for the Bulk-Power System*, FERC Stats. & Regs. ¶ 31,242 (2007) (Order No. 693), *reh'g denied*, 120 FERC ¶ 61,053 (2007) (Order No. 693-A). See 18 C.F.R § 39.7(c)(2).

<sup>2</sup> SERC Reliability Corporation (SERC) confirmed that Entergy was included on the NERC Compliance Registry as a Balancing Authority (BA), Distribution Provider, Generator Operator, Generator Owner, Load-Serving Entity, Planning Authority, Purchasing-Selling Entity, Resource Planner, Transmission Operator (TOP), Transmission Owner, Transmission Planner (TP), and Transmission Service Provider on May 31, 2007 and as an Interchange Authority on March 20, 2008. As a BA and TOP, Entergy is subject to TOP-002-2a Requirement (R)4. As a TOP, Entergy is subject TOP-002-2a R11, TOP-004-2 R1, and TOP-008-1 R2.

<sup>3</sup> See 18 C.F.R § 39.7(c)(2).

<sup>4</sup> The Entergy Operating Companies consist of Entergy Arkansas, Inc.; Entergy Gulf States Louisiana, LLC; Entergy Louisiana, LLC; Entergy Mississippi, Inc.; Entergy New Orleans, Inc.; and Entergy Texas, Inc.

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Entergy, as a GOP, operates 85 generators with a net generation capacity of approximately 30,000 MW.

Entergy, as a TO and TOP, owns and operates 15,691 miles of transmission lines consisting of the following: 2,040 miles of 500 kV, 97 miles of 345 kV, 2,321 miles of 230 kV, 1,517 miles of 161 kV, 2,252 miles of 138 kV, 5,877 miles of 115 kV and 1,587 miles of 69 kV.

This Notice of Penalty is being filed with the Commission because SERC Reliability Corporation (SERC) and Entergy have entered into a Settlement Agreement to resolve all outstanding issues arising from SERC's determination and findings of the violations<sup>5</sup> of TOP-002-2a Requirement (R)4 and R11, TOP-004-2 R1, and TOP-008-1 R2. According to the Settlement Agreement, Entergy neither admits nor denies the violations, but has agreed to the assessed penalty of thirty thousand dollars (\$30,000), in addition to other remedies and actions to mitigate the instant violations and facilitate future compliance under the terms and conditions of the Settlement Agreement. Accordingly, the violations identified as NERC Violation Tracking Identification Numbers SERC2012010563, SERC2012010564, SERC2012010565, and SERC2012010567 are being filed in accordance with the NERC Rules of Procedure and the CMEP.

### **Statement of Findings Underlying the Violations**

This Notice of Penalty incorporates the findings and justifications set forth in the Settlement Agreement executed on December 16, 2013, by and between SERC and Entergy, which is included as Attachment a. The details of the findings and basis for the penalty are set forth in the Settlement Agreement and herein. This Notice of Penalty filing contains the basis for approval of the Settlement Agreement by the NERC Board of Trustees Compliance Committee (NERC BOTCC). In accordance with Section 39.7 of the Commission's regulations, 18 C.F.R. § 39.7 (2013), NERC provides the following summary table identifying each violation of a Reliability Standard resolved by the Settlement Agreement, as discussed in greater detail below.

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<sup>5</sup> For purposes of this document, each violation at issue is described as a "violation," regardless of its procedural posture and whether it was a possible, alleged or confirmed violation.

Region	Registered Entity	NOC ID	NERC Violation ID	Reliability Std.	Req. (R)	VRF	Total Penalty
SERC Reliability Corporation	Entergy	NOC-2270	SERC2012010563	TOP-002-2a	R4	Medium	\$30,000
			SERC2012010564	TOP-002-2a	R11	Medium	
			SERC2012010565	TOP-004-2	R1	High	
			SERC2012010567	TOP-008-1	R2	High	

#### December 27, 2010 Event Overview

On June 14, 2011, SERC initiated a Compliance Investigation of Entergy with respect to a December 27, 2010 load shed event (the Event) in the Acadiana Load Pocket (ALP). On Monday, December 27, 2010, the Southwest Power Pool Reliability Coordinator (RC) directed 277 MW of total load shed in a region of southern Louisiana known as the ALP. The ALP is located between the Atchafalaya Basin and Jennings, Louisiana. Along with Entergy, the entities represented in the ALP are Cleco Power LLC, Louisiana Energy & Power Authority, Lafayette Utilities System (LUS), Louisiana Generating LLC, South Louisiana Electric Cooperative Association, and Southwest Louisiana Electric Membership Corporation.

There were several contributing causes to the Event:

1. On December 27, 2010 at 1:59 a.m., the RC informed Entergy that the current load on the system was higher than the load forecasted in the next-day study. This was due to extreme low temperatures in the South Louisiana area not anticipated when developing the forecast prior to the holiday weekend.
2. At 4:11 a.m., the RC informed Entergy that LUS was starting its two quick-start generating units which can supply up to 100 MW of generation in the load pocket. These generators were in the ALP plan as available for December 27, 2010 but failed to start due to frozen valves. The RC did not inform Entergy of this failure to start until 5:49 a.m.
3. At 5:41 a.m., Entergy opened the Wilbert-Livonia 138 kV transmission line for a scheduled outage, which had been approved by the RC on December 20, 2010.
4. At 5:50 a.m., the RC asked to have the Wilbert-Livonia line put back into service due to a post-contingent loading on another line.

5. At 6:08 a.m., the Entergy 138 kV transmission line Richard-Scott tripped because of a failed splice. The redistribution of flows created an overload on the 138 kV North Crowley-Scott transmission line.
6. At 6:13 a.m., the Wilbert-Livonia line returned to service reducing the overload on the North Crowley-Scott line to 103% of its thermal rating.
7. At 6:19 a.m., Entergy closed the normally open breaker 8820 at the Scott Bulk substation, which relieved the overload on the 138 kV North Crowley-Scott line, but created an overload on the 138 kV Richard-Colonial Academy transmission line.
8. At this point, the RC issued load shed directives in the total amount of 202 MW to the entities with load in the ALP. Entergy's portion of that load-shed directive was 37 MW.
9. The Richard-Colonial Academy line loading reduced to below 100% at 6:54 a.m.
10. Additional generation came online in the Acadiana area; however, two of LUS's generators tripped off-line at 7:48 a.m. This led to the second round of load shed in the total amount of 75 MW.
11. At 8:24 a.m., one of the LUS generators returned to service.
12. At 8:30 a.m., Entergy curtailed its portion of Acadiana generation, 400 MW, providing additional limited relief of overloading.
13. At 8:37 a.m., the other LUS generator returned to service, and an additional City of Lafayette generator came online.
14. At 8:45 a.m., load in the ALP peaked, and the RC gave instructions to reinstate 234 MW of load.
15. At 9:16 a.m., all remaining load shed was released.
16. At 4:58 p.m., the 138 kV Richard-Scott transmission line returned to service.

#### TOP-002-2a

The purpose statement of Reliability Standard TOP-002-2a provides: "Current operations plans and procedures are essential to being prepared for reliable operations, including response for unplanned events."

#### SERC2012010563

TOP-002-2a R4 provides: "Each Balancing Authority and Transmission Operator shall coordinate (where confidentiality agreements allow) its current-day, next-day, and seasonal planning and operations with

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neighboring Balancing Authorities and Transmission Operators and with its Reliability Coordinator, so that normal Interconnection operation will proceed in an orderly and consistent manner.”

TOP-002-2a R4 has a “Medium” Violation Risk Factor (VRF) and a “Moderate” Violation Severity Level (VSL). The subject violation applies to Entergy’s BA and TOP functions.

SERC determined that Entergy failed to coordinate its current-day planning and operations with neighboring BAs and TOPs and with its RC so that normal interconnection operation would proceed in an orderly and consistent manner.

On December 20, 2010, Entergy's RC approved a line-outage plan submitted by the Entergy TOP. The 138 kV Livonia-Wilbert line outage was to begin on December 27, 2010 at 5:30 a.m., and to end on December 30, 2010 at 5:00 p.m. On December 27, 2010 at 1:59 a.m., the RC informed Entergy that the current load on the system was higher than the load forecasted in the next-day study. At 5:40 a.m., Entergy instructed its local operator to remove the Livonia-Wilbert line from service for its planned maintenance outage, which the RC had approved on December 20, 2010. At 5:49 a.m., the RC directed Entergy to return the Livonia-Wilbert line to service because of a concern for possible post-contingent loading on the North Crowley-Scott line coincident with the loss of the Richard-Scott line. The Wilbert-Livonia line returned to service at 5:52 a.m.

Although the RC approved the planned line outage a week earlier, the RC communicated to Entergy that loading was unexpectedly higher and had issued a Transmission Loading Relief (TLR) to address a contingency related to the load pocket. Despite the changes in system conditions, Entergy removed the line from service without coordinating current-day operation with the RC.

SERC determined the duration of the violation to be during the Event on December 27, 2010.

SERC determined that this violation posed a moderate risk to the reliability of the bulk power system (BPS), but did not pose a serious or substantial risk. Specifically, failure to reconfirm the planned outage with the RC during an event could have negatively affected the transmission system’s reliability by creating an overload condition on other lines. The failure could have further delayed the implementation of mitigating actions associated with a post contingency.

The RC had approved the planned outage to begin on December 27, 2010, and would have considered the outage in the RC’s Real-Time Contingency Analysis for that day. In addition, Entergy does provide its RC with ongoing access to the Entergy model to plan for reliable operation.

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SERC2012010564

TOP-002-2a R11 provides:

The Transmission Operator shall perform seasonal, next-day, and current-day Bulk Electric System studies to determine SOLs. Neighboring Transmission Operators shall utilize identical SOLs for common facilities. The Transmission Operator shall update these Bulk Electric System studies as necessary to reflect current system conditions; and shall make the results of Bulk Electric System studies available to the Transmission Operators, Balancing Authorities (subject to confidentiality requirements), and to its Reliability Coordinator.

TOP-002-2a R11 has a “Medium” VRF and a “Severe” VSL. The subject violation applies to Entergy’s TOP function.

SERC determined that Entergy failed to update the next-day Bulk Electric System studies as necessary to reflect current system conditions and to make the results available to the TOP, Balancing Authorities (subject to confidentiality requirements), and its RC. Entergy completed the next-day analyses for December 23, 2010 through December 26, 2010, on December 22, 2010 at 1:25 p.m., and the corresponding contingency results for December 24, 2010 through December 27, 2010, on December 22, 2010 at 2:44 p.m.

On December 27, 2010 at 1:59 a.m., the RC informed Entergy that the current load was above the load forecasted in the next-day study. Colder temperatures than those forecasted had started to develop on December 26, 2010 at 11:00 a.m. Between December 26, 2010 and December 27, 2010, the actual temperatures were as much as 15 degrees colder than the previously forecasted temperatures. Despite the trend showing significant differences between the forecast and actual temperature, Entergy did not update its next-day analysis using the anticipated conditions.

SERC determined the duration of the violation to be December 26, 2010, the day before the Event when Entergy failed to perform an updated next-day study to reflect current system conditions.

SERC determined that this violation posed a moderate risk to the reliability of the BPS, but did not pose a serious or substantial risk. Specifically, without up-to-date next-day analyses, an entity may implement incorrect contingency plans if faced with an event. This may cause a delay in responding to the event. Next-day studies that reflect inaccurate loads could result in a failure to commit sufficient generation and possibly result in more severe load shedding.

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Entergy's contingency plans were correct. Entergy validated the December 22, 2010 next-day studies by evaluating the results of the current-day analyses, and each evaluation indicated that the expected contingency mitigation result had not changed.

#### TOP-004-2

The purpose statement of Reliability Standard TOP-004-2 provides: "To ensure that the transmission system is operated so that instability, uncontrolled separation, or cascading outages will not occur as a result of the most severe single Contingency and specified multiple Contingencies."

#### SERC2012010565

TOP-004-2 R1 provides: "Each Transmission Operator shall operate within the Interconnection Reliability Operating Limits (IROLs) and System Operating Limits (SOLs)."

TOP-004-2 R1 has a "High" VRF and a "Severe" VSL. The subject violation applies to Entergy's TOP function.

SERC determined that Entergy failed to operate within existing SOLs. On the morning of December 27, 2010 at 6:08 a.m., the Richard-Scott 138 kV line tripped due to a splice failure on that line. This trip caused the North Crowley-Scott line to become overloaded, exceeding the SOLs by 8% for 10 minutes. Entergy's closing the 8820 Breaker at the Scott Bulk substation and returning to service the Wilbert-Livonia 138 kV line relieved the overload condition.

Shortly after the SOL on North Crowley-Scott was relieved, the Richard-Colonial Academy line became overloaded, exceeding the SOLs by 11% at peak, but 9% on average for 35 minutes. Entergy's manually shedding approximately 50 MW of load relieved this overload condition.

SERC determined the duration of the violation to be during the Event on December 27, 2010.

SERC determined that this violation posed a moderate risk to the reliability of the BPS, but did not pose a serious or substantial risk. Specifically, operating above SOLs can lead to operators having to realign transmission system configuration through switching, re-dispatching generation, and/or shedding load.

The SOLs that Entergy exceeded during the Event were thermal limits and not voltage or stability limits. Entergy had a procedure in place to monitor and control real and reactive power flows on the Entergy transmission system. The procedure provides operating guidelines for identified overload situations. Entergy also had an SOL and IROL procedure, which describes how the SOL program in the Energy



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Management System (EMS) works and how operators should react to SOLs and IROLs. Finally, no IROLs were exceeded during this Event.

#### TOP-008-1

The purpose statement of Reliability Standard TOP-008-1 provides: “To ensure Transmission Operators take actions to mitigate SOL and IROL violations.”

#### SERC2012010567

TOP-008-1 R2 provides:

Each Transmission Operator shall operate to prevent the likelihood that a disturbance, action, or inaction will result in an IROL or SOL violation in its area or another area of the Interconnection. In instances where there is a difference in derived operating limits, the Transmission Operator shall always operate the Bulk Electric System to the most limiting parameter.

TOP-008-1 R2 has a “High” VRF and a “Severe” VSL. The subject violation applies to Entergy’s TOP function.

SERC determined that Entergy failed to operate to prevent the likelihood that an action would result in a SOL violation in its area or another area of the Interconnection.

At 4:11 a.m., the RC informed Entergy that LUS was starting up generation units to help control the loading on the Richard-Scott line. However, these units were not able to start due to frozen valves, and the RC did not notify Entergy of this failure until 5:49 a.m.

While waiting for the RC to issue the load-shed plan and after a brief real-time analysis, which consisted of reviewing the EMS one-lines and discussing the issue with its local operating personnel, Entergy ordered the local operator to close the normally open 8820 breaker to relieve the overload condition on the North Crowley-Scott line. According to a recorded communication, local operating personnel suggested the closing of the breaker and the transmission operator concurred. The breaker closed at 6:19 a.m., and the line reverted to within its operating limit. However, immediately following the closing of the 8820 breaker, the Richard-Colonial 138 kV line overloaded by 11% over its thermal rating. At 6:24 a.m., the RC completed the load-shed plan, which it issued to Entergy to implement. Following the implementation of the load-shed plan, the transmission system reverted to its normal mode of operation. The SOL was exceeded by a maximum of 11% for an average of 35 minutes.

SERC determined the duration of the violation to be during the Event on December 27, 2010.



SERC determined that this violation posed a moderate risk to the reliability of the BPS, but did not pose a serious or substantial risk. Specifically, failing to operate the system to prevent an IROL or SOL violation can lead to additional SOL violations. This requires operators to realign transmission system configuration through switching, re-dispatching generation, and/or shedding load.

As discussed above, Entergy did have procedures in place to monitor and resolve IROLs and SOLs. In addition, no IROLs were exceeded during this Event.

#### Regional Entity's Basis for Penalty

According to the Settlement Agreement, SERC has assessed a penalty of thirty thousand dollars (\$30,000) for the referenced violations. In reaching this determination, SERC considered the following factors:

1. Entergy has prior violations of the subject NERC Reliability Standards, which SERC did not consider to be aggravating factors;<sup>6</sup>
2. Entergy was cooperative throughout the compliance enforcement process;
3. Entergy had an internal compliance program (ICP) at the time of the violation which SERC considered a mitigating factor;<sup>7</sup>
4. there was no evidence of any attempt to conceal a violation nor evidence of intent to do so;

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<sup>6</sup> On March 28, 2013, FERC issued an Order (142 FERC ¶ 61,241) with a \$975,000 civil penalty, mitigation and compliance enhancement measures, and a requirement for semi-annual compliance reports to FERC Enforcement for a period of up to two years. The Order resulted from an investigation of Entergy, conducted by FERC Enforcement in coordination with the Commission's Office of Electric Reliability, which discovered 27 violations of 15 Reliability Standards, including violations of TOP-002-2b R4 and R11, TOP-004-2 R1, and TOP-008-1 R4. In reaching its penalty determination, FERC Enforcement found these 27 violations to be serious deficiencies undermining reliable operation of Entergy's portion of the BPS. In accordance with NERC's Sanction Guidelines, SERC did not consider Entergy's TOP violations in the FERC Settlement to be an aggravating factor in penalty determination. This is because Entergy had not completed mitigation activities for the FERC violations at the time of the Event.

<sup>7</sup> Entergy has a documented ICP, which consists of multiple system policies for all areas of compliance including NERC Reliability Standards. Entergy reviews the ICP on an as-needed basis. The ICP requires that all senior management be responsible for ensuring that their employees cooperate, are aware of, and understand the ICP. The Corporate Compliance Committee (CCC) oversees the ongoing development and maintenance of Entergy's policies and procedures concerning legal compliance issues and business ethics, and oversees activities undertaken to promote adherence with such policies and procedures. The CCC meets quarterly and is responsible for the development and the promotion of Entergy's compliance and business ethics policies and procedures. Entergy's corporate compliance officer, the vice-president, ethics and compliance, is a member of the CCC, reports directly to the senior vice-president and general counsel, and has independent access to Entergy's board of directors audit committee.

5. the violations posed a moderate and not serious or substantial risk to the reliability of the BPS, as discussed above;
6. the violations occurred while the system was stressed, which was an aggravating factor, though the violations did not contribute to the loss of load; and
7. there were no other mitigating or aggravating factors or extenuating circumstances that would affect the assessed penalty.

After consideration of the above factors, SERC determined that, in this instance, the penalty amount of thirty thousand dollars (\$30,000) is appropriate and bears a reasonable relation to the seriousness and duration of the violations.

#### **Status of Mitigation Plans<sup>8</sup>**

##### SERC2012010563 and SERC2012010564

Entergy's Mitigation Plan to address its violations of TOP-002-2a R4 and R11 was submitted to SERC on November 7, 2013 stating it had been completed on July 31, 2013. The Mitigation Plan was accepted by SERC on November 11, 2013 and approved by NERC on December 6, 2013. The Mitigation Plan for these violations is designated as SERCMIT010118 and was submitted as non-public information to FERC on December 6, 2013 in accordance with FERC orders.

Entergy's Mitigation Plan stated Entergy had taken the following actions to mitigate these violations:

1. implemented a procedure that requires daily outage verification, defined start and stop time for outages, and real-time approval prior to outage start;
2. shared lessons learned from the Event with applicable personnel;
3. implemented an operator qualification process as part of the PER-005 efforts to ensure that operators have been tested and qualified to work specific desks;
4. held three-part communication, human performance, and directive training for applicable personnel;
5. updated the SOL and IROL applicable procedure; and
6. implemented a checklist, which includes the completion of a new day analysis for operators to review and complete at the end of each shift.

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<sup>8</sup> See 18 C.F.R § 39.7(d)(7).

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Entergy certified on November 27, 2013 that the above Mitigation Plan requirements were completed on July 31, 2013. As evidence of completion of its Mitigation Plan, Entergy submitted the following:

1. Documentation confirming the implementation of the new procedure;
2. Acadiana load shed lessons learned training materials;
3. Documentation confirming the implementation of the operator qualifications process;
4. three-part communication, human performance, and directive training materials;
5. the updated SOL and IROL Procedure; and
6. the operators' checklist with documentation of the completion of new day analysis as a part of the checklist.

On December 17, 2013, after SERC's review of Entergy's submitted evidence, SERC verified that Entergy's Mitigation Plan was completed on July 31, 2013.

#### SERC2012010565

Entergy's Mitigation Plan to address its violation of TOP-004-2 R1 was submitted to SERC on November 7, 2013 stating it had been completed on April 8, 2013. The Mitigation Plan was accepted by SERC on November 9, 2013 and approved by NERC on December 6, 2013. The Mitigation Plan for this violation is designated as SERCMIT010119 and was submitted as non-public information to FERC on December 6, 2013 in accordance with FERC orders.

Entergy's Mitigation Plan stated Entergy had taken the following actions to mitigate this violation:

1. implemented a procedure that requires daily outage verification, defined start and stop time for outages, and real-time approval prior to outage start;
2. shared lessons learned from the Event with applicable personnel;
3. implemented an operator qualification process as part of the PER-005 efforts to ensure that operators have been tested and qualified to work specific desks;
4. held three-part communication, human performance, and directive training for applicable personnel; and
5. updated the SOL and IROL applicable procedure.

Entergy certified on November 27, 2013 that the above Mitigation Plan requirements were completed on April 8, 2013. As evidence of completion of its Mitigation Plan, Entergy submitted the following:

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1. Procedure RTO-IOP-052, MISO Outage Operations Procedure;
2. Acadiana load shed lessons learned training materials;
3. Documentation confirming the implementation of the operator qualifications process;
4. three-part communication, human performance, and directive training materials; and
5. the updated SOL and IROL Procedure.

On December 3, 2013, after SERC's review of Entergy's submitted evidence, SERC verified that Entergy's Mitigation Plan was completed on April 8, 2013.

SERC2012010567

Entergy's Mitigation Plan to address its violation of TOP-008-1 R2 was submitted to SERC on November 7, 2013 stating it had been completed on April 8, 2013. The Mitigation Plan was accepted by SERC on November 9, 2013 and approved by NERC on December 6, 2013. The Mitigation Plan for this violation is designated as SERCMIT010120 and was submitted as non-public information to FERC on December 6, 2013 in accordance with FERC orders.

Entergy's Mitigation Plan stated Entergy had taken the following actions to mitigate this violation:

1. implemented a procedure that requires daily outage verification, defined start and stop time for outages, and real-time approval prior to outage start;
2. shared lessons learned from the Event with applicable personnel;
3. implemented an operator qualification process as part of the PER-005 efforts to ensure that operators have been tested and qualified to work specific desks; and
4. held three part communication, human performance, and directive training for applicable personnel.

Entergy certified on November 27, 2013 that the above Mitigation Plan requirements were completed on April 8, 2013. As evidence of completion of its Mitigation Plan, Entergy submitted the following:

1. Procedure RTO-IOP-052, MISO Outage Operations Procedure;
2. Acadiana load shed lessons learned training materials;
3. Documentation confirming the implementation of the operator qualifications process;
4. three-part communication, human performance, and directive training materials; and
5. the updated SOL and IROL Procedure.

On February 6, 2014, after SERC's review of Entergy's submitted evidence, SERC verified that Entergy's Mitigation Plan was completed on April 8, 2013.

### **Statement Describing the Assessed Penalty, Sanction or Enforcement Action Imposed<sup>9</sup>**

#### **Basis for Determination**

Taking into consideration the Commission's direction in Order No. 693, the NERC Sanction Guidelines and the Commission's July 3, 2008, October 26, 2009 and August 27, 2010 Guidance Orders,<sup>10</sup> the NERC BOTCC reviewed the Settlement Agreement and supporting documentation on March 18, 2014. The NERC BOTCC approved the Settlement Agreement, including SERC's assessment of a thirty thousand dollar (\$30,000) financial penalty against Entergy and other actions to facilitate future compliance required under the terms and conditions of the Settlement Agreement. In approving the Settlement Agreement, the NERC BOTCC reviewed the applicable requirements of the Commission-approved Reliability Standards and the underlying facts and circumstances of the violations at issue.

In reaching this determination, the NERC BOTCC considered the following factors:

1. Entergy has prior violations of the subject NERC Reliability Standards, which SERC did not consider to be aggravating factors, as discussed above;
2. SERC reported that Entergy was cooperative throughout the compliance enforcement process;
3. Entergy had an ICP at the time of the violation which SERC considered a mitigating factor, as discussed above;
4. there was no evidence of any attempt to conceal a violation nor evidence of intent to do so;
5. SERC determined that the violations did not pose a serious or substantial risk to the reliability of the BPS, as discussed above;
6. the violations occurred while the system was stressed, which was an aggravating factor, though the violations did not contribute to the loss of load; and

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<sup>9</sup> See 18 C.F.R. § 39.7(d)(4).

<sup>10</sup> *North American Electric Reliability Corporation*, "Guidance Order on Reliability Notices of Penalty," 124 FERC ¶ 61,015 (2008); *North American Electric Reliability Corporation*, "Further Guidance Order on Reliability Notices of Penalty," 129 FERC ¶ 61,069 (2009); *North American Electric Reliability Corporation*, "Notice of No Further Review and Guidance Order," 132 FERC ¶ 61,182 (2010).

7. SERC reported that there were no other mitigating or aggravating factors or extenuating circumstances that would affect the assessed penalty.

For the foregoing reasons, the NERC BOTCC approved the Settlement Agreement and believes that the assessed penalty of thirty thousand dollars (\$30,000) is appropriate for the violations and circumstances at issue, and is consistent with NERC's goal to promote and ensure reliability of the BPS.

Pursuant to 18 C.F.R. § 39.7(e), the penalty will be effective upon expiration of the 30-day period following the filing of this Notice of Penalty with FERC, or, if FERC decides to review the penalty, upon final determination by FERC.

#### **Attachments to be Included as Part of this Notice of Penalty**

The attachments to be included as part of this Notice of Penalty are the following documents:

- a) Settlement Agreement by and between SERC and Entergy executed December 16, 2014, included as Attachment a;<sup>11</sup>
  1. Spreadsheet expedited disposition document, included as Attachment A to the Settlement Agreement;
- b) Record documents for the violations of TOP-002-2a R4 and R11, included as Attachment b:
  1. SERC's Source Document for TOP-002-2a R4 dated June 21, 2012;
  2. SERC's Source Document for TOP-002-2a R11 dated June 21, 2012;
  3. Entergy's Mitigation Plan designated as SERCMIT010118 submitted November 7, 2013;
  4. Entergy's Certification of Mitigation Plan Completion dated November 27, 2013;
- c) Record documents for the violations of TOP-004-2 R1, included as Attachment c:
  1. SERC's Source Document dated June 21, 2012;
  2. Entergy's Mitigation Plan designated as SERCMIT010119 submitted November 7, 2013;
  3. Entergy's Certification of Mitigation Plan Completion dated November 27, 2013;
- d) Record documents for the violations of TOP-008-1 R2, included as Attachment d:
  1. SERC's Source Document dated June 21, 2012;

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<sup>11</sup> The Settlement Agreement and attached spreadsheet serve as SERC's Verifications of Mitigation Plan Completion.

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2. Entergy's Mitigation Plan designated as SERCMIT010120 submitted November 7, 2013; and
3. Entergy's Certification of Mitigation Plan Completion dated November 27, 2013.



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**Notices and Communications:** Notices and communications with respect to this filing may be addressed to the following:

<p>Gerald W. Cauley          President and Chief Executive Officer          North American Electric Reliability Corporation          3353 Peachtree Road NE          Suite 600, North Tower          Atlanta, GA 30326          (404) 446-2560</p> <p>Charles A. Berardesco*          Senior Vice President and General Counsel          North American Electric Reliability Corporation          1325 G Street N.W., Suite 600          Washington, DC 20005          (202) 400-3000          (202) 644-8099 – facsimile          charles.berardesco@nerc.net</p> <p>Marisa A. Sifontes*          General Counsel          Maggie A. Sallah          Senior Counsel*          SERC Reliability Corporation          2815 Coliseum Centre Drive, Suite 500          Charlotte, NC 28217          (704) 494-7775          (704) 357-7914 – facsimile          msifontes@serc1.org          msallah@serc1.org</p>	<p>Sonia C. Mendonça*          Associate General Counsel and Director of          Enforcement          North American Electric Reliability Corporation          1325 G Street N.W., Suite 600          Washington, DC 20005          (202) 400-3000          (202) 644-8099 – facsimile          sonia.mendonca@nerc.net</p> <p>Edwin G. Kichline*          Senior Counsel and Associate Director,          Enforcement Processing          North American Electric Reliability Corporation          1325 G Street N.W., Suite 600          Washington, DC 20005          (202) 400-3000          (202) 644-8099 – facsimile          edwin.kichline@nerc.net</p> <p>John R. Twitchell*          VP and Chief Program Officer          SERC Reliability Corporation          2815 Coliseum Centre Drive, Suite 500          Charlotte, NC 28217          (704) 940-8205          (704) 357-7914 – facsimile          jtwitchell@serc1.org</p>
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NERC Notice of Penalty  
 Entergy  
 March 31, 2014  
 Page 17

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\*Persons to be included on the Commission's service list are indicated with an asterisk. NERC requests waiver of the Commission's rules and regulations to permit the inclusion of more than two people on the service list.

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Entergy  
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**Conclusion**

NERC respectfully requests that the Commission accept this Notice of Penalty as compliant with its rules, regulations, and orders.

Respectfully submitted,

/s/ Sonia Mendonça

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Associate General Counsel and Director of  
Enforcement  
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cc: Entergy  
SERC Reliability Corporation

Attachments

## **Attachment a**

### **Settlement Agreement by and between SERC and Entergy executed December 16, 2014**

#### **a-1. Spreadsheet expedited disposition document as Attachment A to the Settlement Agreement**

## **Settlement Agreement**

Entergy Services, Inc. on behalf of Entergy Operating Companies<sup>1</sup> (Entergy) and SERC Reliability Corporation (SERC) agree to the following:

1. Entergy neither admits nor denies the four violations of NERC Reliability Standards as detailed in the Attachment A. Entergy has agreed to the penalty of thirty thousand dollars (\$30,000) in addition to the actions undertaken to mitigate the violation.
2. This Settlement Agreement and the related documents are subject to approval or modification by the North American Electric Reliability Corporation (NERC) and the Federal Energy Regulatory Commission (FERC or Commission). After Commission approval of the instant Notice of Penalty, SERC will submit an invoice to Entergy addressing the payment terms.
3. Entergy has agreed to enter into this Settlement Agreement with SERC to avoid extended litigation with respect to the matters described or referred to herein, to avoid uncertainty, and to effectuate a complete and final resolution of the issues set forth herein. Entergy agrees that this Settlement Agreement is in the best interest of the parties and in the best interest of the reliability of the bulk-power system.
4. The violations listed in Attachment A will be considered violations by NERC, the Regional Entity, and FERC for all purposes and may be used as an aggravating factor in accordance with the NERC Sanction Guidelines for determining appropriate monetary penalties or sanctions for future violations.
5. Attachment A contains a description of the mitigating activities, which SERC has verified as complete.
6. The expedited disposition agreed to herein represents a full and final disposition of the violations listed in Attachment A, subject to approval or modification by NERC and FERC. Entergy waives its right to further hearings and appeal unless and only to the extent that Entergy contends that any NERC or Commission action on this Settlement Agreement contains one or more material modifications.
7. In the event that Entergy fails to comply with any of the stipulations, remedies, sanctions or additional terms, as set forth in this Settlement Agreement, SERC will initiate enforcement, penalty, or sanction actions against Entergy to the maximum extent allowed by the NERC Rules of Procedure, up to the maximum statutorily allowed penalty. Except

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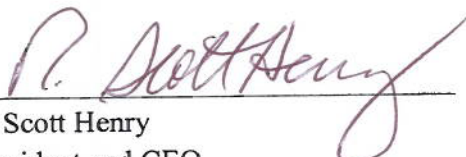
<sup>1</sup> Entergy Operating Companies consist of Entergy Arkansas, Inc.; Entergy Gulf States Louisiana, LLC; Entergy Louisiana, LLC; Entergy Mississippi, Inc.; Entergy New Orleans, Inc.; and Entergy Texas, Inc.

[REDACTED]

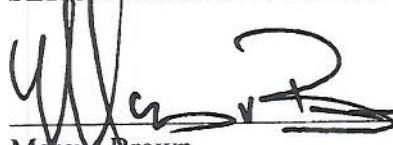
as otherwise specified in this Settlement Agreement, Entergy shall retain all rights to defend against such enforcement actions, also according to the NERC Rules of Procedure.

8. Each of the undersigned warrants that he or she is an authorized representative of the entity designated, is authorized to bind such entity, and accepts the Settlement Agreement on the entity's behalf.
9. The undersigned representative of each party affirms that he or she has read the Settlement Agreement, that all of the matters set forth in the Settlement Agreement are true and correct to the best of his or her knowledge, information and belief, and that he or she understands that the Settlement Agreement is entered into by such party in express reliance on those representations.

Accepted:

  
\_\_\_\_\_  
R. Scott Henry  
President and CEO  
**SERC RELIABILITY CORPORATION**

12/16/2013  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Marcus Brown  
Executive Vice President, General Counsel  
**ENTERGY SERVICES, INC.**

12/13/13  
\_\_\_\_\_  
Date



**ATTACHMENT A**



Region	Registered Entity	NCR_ID	NERC Violation ID #	Notice of Confirmed Violation or Settlement Agreement	Description of the Violation	Reliability Standard	Req.	Violation Risk Factor	Violation Severity Level	Risk Assessment	Violation Start Date	Violation End Date	Total Penalty or Sanction (\$)	Method of Discovery	Description of Mitigation Activity	Mitigation Completion Date	Date Regional Entity Verified Completion of Mitigation	"Admin," "Agrees/Stipulates," "Neither Admits nor Denies," or "Does Not Contest"	Other Factors Affecting the Penalty Determination, including Compliance History, Internal Compliance Program and Compliance Culture
SERC Reliability Corporation (SERC)	Entergy	NCR01234	SERC2012010563	Settlement Agreement	<p>On June 14, 2011, a Compliance Investigation (CI) was initiated by SERC with respect to a December 27, 2010 load shed event in the Acadiana Load Pocket. On June 21, 2012, the CI team reported that Entergy, as a Transmission Operator (TOP) and Balancing Authority (BA), was in violation of TOP-002-2a R4 because it failed to coordinate with the neighboring BA and TOP, and with its Reliability Coordinator (RC) when removing a transmission line for a scheduled outage.</p> <p>On December 20, 2010, Entergy's RC approved a line-outage plan submitted by the Entergy TOP. The 138 kV Livonia-Wilbert line outage was to begin on December 27, 2010 at 5:30 a.m., and to end on December 30, 2010 at 5:00 p.m.</p> <p>On December 27, 2010 at 1:59 a.m., the RC informed Entergy that the current load on the system was higher than the load forecasted in the next day study. At 3:35 a.m., the RC notified Entergy that it had issued a Level 1 Transmission Loading Relief (TLR) for the Richard-Scott 138 kV line to address the post-contingent loading that would occur upon the loss of Cleco Power's well-Past Due Monitor 230 kV line.</p> <p>At 4:11 a.m., the RC informed Entergy that the City of Lafayette Utility was starting up the Harris units to help control the loading on the Richard-Scott line. However, these units were not able to start due to frozen valves, and the RC did not notify Entergy of this failure until 5:49 a.m.</p> <p>At 5:40 a.m., Entergy instructed its local operator to remove the Livonia-Wilbert line from service for its planned maintenance outage, which the RC had approved on December 20, 2010. At 5:49 a.m., the RC directed Entergy to return the Livonia-Wilbert line to service because of a concern for possible post-contingent loading on the North Crowley-Scott line coincident with the loss of the Richard-Scott line. The Wilbert-Livonia line was returned to service at 5:52 a.m.</p> <p>Although the line outage was planned and approved by the RC a week earlier, the RC had communicated to Entergy that loading was unexpectedly higher than when the outage was approved and had issued a TLR to address a contingency related to the load pocket. Despite the changes in system conditions, Entergy removed the line from service without coordinating current-day operation with the RC.</p>	TOP-002-2a	R4	Medium	Moderate	This violation posed a moderate risk and did not pose a serious or substantial risk to the reliability of the bulk power system. Failure to reconfirm the planned outage with the RC during an event such as this could have negatively impacted the Transmission System's reliability by creating an overload condition on other lines. It could have further delayed the implementation of mitigation plans associated with a post contingency. However, the planned outage had been approved by Entergy's RC and would have been considered in the RC's Real-Time Contingency Analysis. Additionally, Entergy provides its RC with ongoing access to its model that can be used to plan for reliable operation.	12/27/2010 (Single occurrence)	12/27/2010 (Single occurrence)	\$30,000 (for SERC2012010563, SERC2012010565, SERC2012010567, and SERC2012010564)	Compliance Investigation	To mitigate this violation, Entergy: 1) implemented a procedure that requires daily outage verification, defined start and stop time for outages, and real time approval prior to outage start; 2) shared lessons learned from the event with applicable personnel; 3) implemented an operator qualification process as part of the PER-005 efforts to ensure that operators have been tested and qualified to work specific desks; 4) held three part communication, human performance and directive training for applicable personnel; 5) updated the applicable SOL and IROL applicable procedure; and 6) implemented a checklist, which includes the completion of a New Day Analysis, for operators to review and complete at the end of each shift.	7/31/2013	12/3/2013	Neither Admits nor Denies	SERC reviewed Entergy's internal compliance program (ICP) and considered it to be a mitigating factor in the penalty determination. Entergy has a documented ICP, which consists of multiple system policies for all areas of compliance including NERC Reliability Standards. The ICP is reviewed on an as-needed basis. The last review took place in the fourth quarter of 2011. The ICP requires that all senior management be responsible for ensuring that their subordinates cooperate, are aware of, and understand the ICP. The Corporate Compliance Committee (CCC) oversees the ongoing development and maintenance of Entergy's policies and procedures concerning legal compliance issues and business ethics and oversees activities undertaken to promote adherence with such policies and procedures. The CCC meets quarterly and is responsible for the development and the promotion of Entergy's compliance and business ethics policies and procedures. Entergy's corporate compliance officer, the vice-president, ethics & compliance, is a member of the CCC, reports directly to the senior vice-president & general counsel, and has independent access to Entergy's board of directors audit committee.
SERC Reliability Corporation (SERC)	Entergy	NCR01234	SERC2012010564	Settlement Agreement	<p>On June 14, 2011, a Compliance Investigation (CI) was initiated by SERC with respect to a December 27, 2010 load shed event in the Acadiana Load Pocket. On June 21, 2012, the CI team reported that Entergy, as a Transmission Operator (TOP), was in violation of TOP-002-2a R11 because it failed to perform the next-day Bulk Electric System studies to determine System Operating Limits (SOLs) and did not update these studies to reflect current system conditions.</p> <p>The next-day analyses for December 23, 2010 through December 26, 2010, were completed by Entergy on December 22, 2010 at 1:25 p.m., and the corresponding contingency results for December 24, 2010 through December 27, 2010, were completed at 2:44 p.m.</p> <p>Colder temperatures than those forecasted had started to develop on December 26, 2010 at 11:00 a.m. Between December 26, 2010 and December 27, 2010, the actual temperatures were as much as 15 degrees colder than the previously forecasted temperatures. In light of the trend showing significant differences between the forecast and actual temperature, Entergy did not update its next-day analysis using the anticipated conditions.</p> <p>On December 27, 2010 at 1:59 a.m., the Reliability Coordinator (RC) informed Entergy that the current load was above the load forecasted in the next-day study. The two Lafayette Unit generating units were called upon due to the higher than expected load. However, due to the low temperatures, the units failed to start. This in conjunction with the unplanned outage of the Richard-Scott 138 kV line due to a splice failure created a condition requiring the RC to request 202 MW of load to be shed, 37 MW of which was allocated to Entergy. In addition, the RC had to instruct Entergy to return a line that had been approved for outage back to service.</p> <p>At 8:24 a.m., with additional generating units coming online and all of the required loads shed, the issues were resolved and the RC gradually restored the load.</p>	TOP-002-2a	R11	Medium	Severe	This violation posed a moderate risk and did not pose a serious or substantial risk to the reliability of the bulk power system. Without up-to-date next day analyses, an entity may implement incorrect contingency plans if faced with an event. This may cause a delay in responding to the event. Next-day studies that reflect inaccurate loads could result in a failure to commit sufficient generation and possibly result in more severe load shedding.	12/26/2010 (Single Occurrence)	12/26/2010 (Single Occurrence)	\$30,000 (for SERC2012010563, SERC2012010565, SERC2012010567, and SERC2012010564)	Compliance Investigation	To mitigate this violation, Entergy: 1) implemented a procedure that requires daily outage verification, defined start and stop time for outages, and real time approval prior to outage start; 2) shared lessons learned from the event with applicable personnel; 3) implemented an operator qualification process as part of the PER-005 efforts to ensure that operators have been tested and qualified to work specific desks; 4) held three part communication, human performance and directive training for applicable personnel; 5) updated the applicable SOL and IROL procedure; and 6) implemented a checklist, which includes the completion of a New Day Analysis, for operators to review and complete at the end of each shift.	7/31/2013	12/3/2013	Neither Admits nor Denies	SERC reviewed Entergy's internal compliance program (ICP) and considered it to be a mitigating factor in the penalty determination. Entergy has a documented ICP, which consists of multiple system policies for all areas of compliance including NERC Reliability Standards. The ICP is reviewed on an as-needed basis. The last review took place in the fourth quarter of 2011. The ICP requires that all senior management be responsible for ensuring that their subordinates cooperate, are aware of, and understand the ICP. The Corporate Compliance Committee (CCC) oversees the ongoing development and maintenance of Entergy's policies and procedures concerning legal compliance issues and business ethics and oversees activities undertaken to promote adherence with such policies and procedures. The CCC meets quarterly and is responsible for the development and the promotion of Entergy's compliance and business ethics policies and procedures. Entergy's corporate compliance officer, the vice-president, ethics & compliance, is a member of the CCC, reports directly to the senior vice-president & general counsel, and has independent access to Entergy's board of directors audit committee.
SERC Reliability Corporation (SERC)	Entergy	NCR01234	SERC2012010565	Settlement Agreement	<p>On June 14, 2011, a Compliance Investigation (CI) was initiated by SERC with respect to a December 27, 2010, load shed event in the Acadiana Load Pocket. The investigation activities concluded on March 20, 2012, and the CI report was issued by SERC on April 23, 2012. The report identified several Possible Violations of the Reliability Standards.</p> <p>On June 21, 2012, the CI team reported that Entergy, as a Transmission Operator (TOP), was in violation of TOP-004-2 R1 because it failed to operate within existing System Operating Limits (SOLs).</p> <p>On the morning of December 27, 2010 at 06:08 a.m., the Richard-Scott 138 kV line tripped due to a splice failure on that line. This trip caused the North Crowley-Scott line to become overloaded, exceeding the SOLs by 8% for 10 minutes. The overload condition was relieved by Entergy closing the 8820 Breaker at the Scott Bulk substation and returning to service the Wilbert-Livonia 138 kV line.</p> <p>Shortly after the SOL on North Crowley-Scott was waterlivered, the Richard-Colonial Academy line became overloaded, exceeding the SOLs by 11% peak, but 9% on average for 35 minutes. This overload condition was relieved by Entergy manually shedding approximately 50 MW of load.</p> <p>The SOLs that Entergy exceeded during the event were thermal limits and not voltage or stability limits. During the event, no Interconnect Reliability Operating Limits (IROLs) were exceeded.</p>	TOP-004-2	R1	High	Severe	This violation posed a moderate risk and did not pose a serious or substantial risk to the reliability of the bulk power system (BPS). Operating above SOL can lead to operators having to realign transmission system configuration through switching, re-dispatching generation, and/or shedding load, all of which could impact the reliability of the BPS. However, the exceeded SOLs during this event were thermal, and did not involve voltage or stability limits. Entergy had a procedure in place to monitor and control real and reactive power flows on the Entergy Transmission System. The procedure provides operating guidelines for identified overload situations. Entergy also had an SOL and IROL procedure, which describes how the SOL program in the Energy Management System works and how operators should react to SOLs and IROLs. During the event, there were no IROLs.	12/27/2010 (Single occurrence)	12/27/2010 (Single occurrence)	\$30,000 (for SERC2012010563, SERC2012010565, SERC2012010567, and SERC2012010564)	Compliance Investigation	To mitigate this violation, Entergy: 1) implemented a procedure that requires daily outage verification, defined start and stop time for outages, and real time approval prior to outage start; 2) shared lessons learned from the event with applicable personnel; 3) implemented an operator qualification process as part of the PER-005 efforts to ensure that operators have been tested and qualified to work specific desks; 4) held three part communication, human performance and directive training for applicable personnel; and 5) updated the SOL and IROL applicable procedure.	4/8/2013	12/3/2013	Neither Admits nor Denies	SERC reviewed Entergy's internal compliance program (ICP) and considered it to be a mitigating factor in the penalty determination. Entergy has a documented ICP, which consists of multiple system policies for all areas of compliance including NERC Reliability Standards. The ICP is reviewed on an as-needed basis. The last review took place in the fourth quarter of 2011. The ICP requires that all senior management be responsible for ensuring that their subordinates cooperate, are aware of, and understand the ICP. The Corporate Compliance Committee (CCC) oversees the ongoing development and maintenance of Entergy's policies and procedures concerning legal compliance issues and business ethics and oversees activities undertaken to promote adherence with such policies and procedures. The CCC meets quarterly and is responsible for the development and the promotion of Entergy's compliance and business ethics policies and procedures. Entergy's corporate compliance officer, the vice-president, ethics & compliance, is a member of the CCC, reports directly to the senior vice-president & general counsel, and has independent access to Entergy's board of directors audit committee.
SERC Reliability Corporation (SERC)	Entergy	NCR01234	SERC2012010567	Settlement Agreement	<p>On June 14, 2011, a Compliance Investigation (CI) was initiated by SERC with respect to a December 27, 2010, load shed event in the Acadiana Load Pocket. On June 21, 2012, the CI team reported that Entergy, as a Transmission Operator (TOP), was in violation of TOP-008-1 R2 because it did not operate to prevent the likelihood that a disturbance, action, or inaction would result in an Interconnect Reliability Operating Limits (IROL) or System Operating Limits (SOL) violation in its area or another area of the Interconnection when it closed the 8820 breaker without the understanding of its impact to its own or others' systems.</p> <p>On December 27, 2010, there was an event that resulted in Entergy having to shed 37 MW of load. The event started with an increase in system load due to the actual temperature becoming colder than forecasted. At 1:59 a.m., the Reliability Coordinator (RC) informed Entergy that the current load on the system was higher than the load forecasted in the next day study.</p> <p>At 4:11 a.m., the RC informed Entergy that the City of Lafayette Utility was starting up the Harris units to help control the loading on the Richard-Scott line. However, these units were not able to start due to frozen valves, and the RC did not notify Entergy of this failure until 5:49 a.m.</p> <p>At 5:40 a.m., Entergy instructed its local operator to remove the Livonia-Wilbert line from service for its planned maintenance outage, which the RC had approved on December 20, 2010. However, the line was later ordered back in service by the RC to resolve a different SOL issue.</p> <p>At 6:08 a.m., the Richard-Scott 138 kV line tripped due to a splice failure on that line. This caused the North Crowley-Scott 138 kV line to become overloaded to 109% of its normal rating by 6:09 a.m. With the return of the Livonia-Wilbert 138 kV line back in service at 6:13 a.m., the overload on the North Crowley-Scott line was reduced to 103%.</p> <p>While waiting for the RC to issue the load-shed plan and after a brief real time analysis, which consisted of reviewing the Energy Management System (EMS) on line and discussing the issue with its local operating personnel, Entergy ordered the local operator to close the normally open 8820 breaker to relieve the overload condition on the North Crowley-Scott line. According to a recorded communication, local operating personnel suggested the closing of the breaker and the TOP concurred. The breaker was closed at 6:19 a.m. and the line reverted back to within its operating limit. However, immediately following the closing of the 8820 breaker, the Richard-Colonial 138 kV line became overloaded by 11% over its thermal rating. At 6:24 a.m., the RC completed the load-shed plan, which it issued to Entergy to implement. Following the implementation of the load-shed plan, the transmission system reverted back to its normal mode of operation. The SOL was exceeded by 11% for 36 minutes.</p>	TOP-008-1	R2	High	Severe	This violation posed a moderate risk and did not pose a serious or substantial risk to the reliability of the bulk power system (BPS). Failing to operate the system to prevent an IROL or SOL violation can lead to additional SOL violations. This requires operators to realign transmission system configuration through switching, re-dispatching generation, and/or shedding load, all of which could impact the reliability of the BPS. However, there were no IROLs involved during this event. Additionally, Entergy has procedures in place to monitor and resolve IROLs and SOLs.	12/27/2010 (Single occurrence)	12/27/2010 (Single occurrence)	\$30,000 (for SERC2012010563, SERC2012010565, SERC2012010567, and SERC2012010564)	Compliance Investigation	To mitigate this violation, Entergy: 1) implemented a procedure that requires daily outage verification, defined start and stop time for outages, and real time approval prior to outage start; 2) shared lessons learned from the event with applicable personnel; 3) implemented an operator qualification process as part of the PER-005 efforts to ensure that operators have been tested and qualified to work specific desks; and 4) held three part communication, human performance and directive training for applicable personnel.	4/8/2013		Neither Admits nor Denies	SERC reviewed Entergy's internal compliance program (ICP) and considered it to be a mitigating factor in the penalty determination. Entergy has a documented ICP, which consists of multiple system policies for all areas of compliance including NERC Reliability Standards. The ICP is reviewed on an as-needed basis. The last review took place in the fourth quarter of 2011. The ICP requires that all senior management be responsible for ensuring that their subordinates cooperate, are aware of, and understand the ICP. The Corporate Compliance Committee (CCC) oversees the ongoing development and maintenance of Entergy's policies and procedures concerning legal compliance issues and business ethics and oversees activities undertaken to promote adherence with such policies and procedures. The CCC meets quarterly and is responsible for the development and the promotion of Entergy's compliance and business ethics policies and procedures. Entergy's corporate compliance officer, the vice-president, ethics & compliance, is a member of the CCC, reports directly to the senior vice-president & general counsel, and has independent access to Entergy's board of directors audit committee.

## **Attachment b**

### **Record documents for the violations of TOP-002-2a R4 and R11**

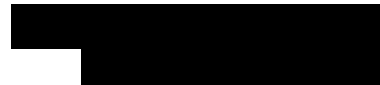
**b-1. SERC's Source Document for TOP-002-2a R4 dated June 21, 2012**

**b-2. SERC's Source Document for TOP-002-2a R11 dated June 21, 2012**

**b.3. Entergy's Mitigation Plan designated as SERCMIT010118 submitted November 7, 2013**

**b.4. Entergy's Certification of Mitigation Plan Completion dated November 27, 2013**

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## Post On-site Audit/Off-site Audit/Spot Check/Investigation Screening Worksheet

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Prepared By: Mark Ladrow

Submittal Date: 6/21/12

Compliance Monitoring Method (On-site Audit, Off-site Audit, Spot-Check, or Investigation): CI

---

Registered Entity: Entergy

NERC Registry ID: NCR01234

Registered Entity Contact Information:

Name: Mark McCulla

Email: mmccul1@entergy.com

Standard: TOP-002-2a

Requirement: R4

Sub Requirement(s):

Function(s) Applicable to Possible Violation:

<input checked="" type="checkbox"/> # \$ ##	<input checked="" type="checkbox"/> # 2 3 #	<input type="checkbox"/> # 2 ##	<input type="checkbox"/> # 2 ##	<input type="checkbox"/> # 2 3 #	<input type="checkbox"/> # 6 ( #
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Date violation occurred: 12/27/10

Date violation discovered (End Date of On-site Audit, Off-site Audit, Spot Check, or Investigation): 4/23/12

Is the violation still occurring? ☐ # ~ 1 ### ☒ # 1 #

Detailed explanation and cause of violation: TOP-002-2 R4 requires coordination of current-day operations such that normal Interconnection operation will proceed in an orderly manner. When Entergy, as the TOP, removed the Wilbert-Livonia transmission line for the scheduled outage, the SOC had already been made aware of the forecast regarding higher than expected loads and concerns with line loading by the RC. Entergy did not coordinate such that Interconnection operation would proceed when it moved forward with the planned outage without further coordination with the RC, necessitating the RC to request re-energizing the line immediately. Although Entergy had scheduled the outage and it had been previously



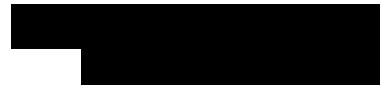
approved, once operating personnel became aware of the RC's concern regarding meeting the load requirements in the morning hours, reason would dictate Entergy should have cancelled any planned transmission outages until system balance was assured and temperatures moderated.

**Reliability Impact (Minimal, Moderate, or Severe): Minimal**

**Reliability Impact Description:** Entergy had previously requested and received permission from its RC for this line outage. All previous studies had been completed with the knowledge and intent that the line was going to be removed from service so the impact of removing on operations had been studied. Entergy should have considered the current conditions when determining the prudence of removing the line from service and whether that was consistent with operating to promote orderly operations.

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Please complete the form as completely as possible and email to [serccomply@serc1.org](mailto:serccomply@serc1.org).



## Post On-site Audit/Off-site Audit/Spot Check/Investigation Screening Worksheet

Prepared By: Mark Ladrow

Submittal Date: 6/21/12

Compliance Monitoring Method (On-site Audit, Off-site Audit, Spot-Check, or Investigation): CI

Registered Entity: Entergy

NERC Registry ID: NCR01234

Registered Entity Contact Information:

Name: Mark McCulla

Email: mmccul1@entergy.com

Standard: TOP-002-2a

Requirement: R11

Sub Requirement(s):

Function(s) Applicable to Possible Violation:

<input type="checkbox"/> # \$ ##	<input checked="" type="checkbox"/> # / 2 3 #	<input type="checkbox"/> # / 2 ##	<input type="checkbox"/> # * 2 ##	<input type="checkbox"/> # * 2 3 #	<input type="checkbox"/> # / 6 ( #
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<input type="checkbox"/> # \$ 6 * #	<input type="checkbox"/> # \$ & ##	<input type="checkbox"/> # \$ # #	#		
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Date violation occurred: 12/27/10

Date violation discovered (End Date of On-site Audit, Off-site Audit, Spot Check, or Investigation): 4/23/12

Is the violation still occurring? ☐ # ~ 1 ### ☒ # 1 #

Detailed explanation and cause of violation: The time leading up to the Event included the Christmas Eve and Christmas holidays on Friday and Saturday, respectively. Entergy has stated that it is its practice to provide next-day studies only on work-days and not on holidays or weekends. The extended holiday and weekend schedule resulted in the day-ahead study being performed long before "next-day". Entergy's response to SERC's second RFI indicated that "[t]he December 27, 2010 next-day study completion date and time was December 22, 2010 at 13:25[h]", five days before the load-shedding event on December 27, 2010. Although the actual Event had many contributing factors, including an unplanned line outage, unit start



failures, and unit trips, the CI Team concluded that it is not possible to comply with the standard's language requiring "[t]he Transmission Operator shall update these Bulk Electric System studies as necessary to reflect current system conditions" when a period of five days is allowed to pass without confirming the current system conditions. In this case, the conditions seem to have included a significant departure from the forecasted temperatures in the ALP resulting in increased loading and likely contributed to some of the supply-side problems experienced.

**Reliability Impact (Minimal, Moderate, or Severe): Moderate**

**Reliability Impact Description:** Although the load-shedding required on December 27, 2010 may not have been avoidable even if Entergy had updated its studies, the potential for failure to meet load could be a plausible outcome of failing to perform studies based on current information. Studies that reflect loads lower than what current conditions indicate or not reflecting current generating capability could result in a failure to commit sufficient generation and possibly result in load shedding or more severe problems in real-time.

---

Please complete the form as completely as possible and email to [serccomply@serc1.org](mailto:serccomply@serc1.org).

**VIEW MITIGATION PLAN: TOP-002-2A (REGION REVIEWING MITIGATION PLAN)**

This item was signed by Mark McCulla (mmccul1@entergy.com) on 11/7/2013

This item was marked ready for signature by Mark O'Donnell (modonne@entergy.com) on 11/7/2013

**SECTION A: COMPLIANCE NOTICES & MITIGATION PLAN REQUIREMENTS**

A.1 Notices and requirements applicable to Mitigation Plans and this Submittal Form are set forth in "[Attachment A - Compliance Notices & Mitigation Plan Requirements](#)" to this form.

[Yes] A.2 I have reviewed Attachment A and understand that this Mitigation Plan Submittal Form will not be accepted unless this box is checked.

**SECTION B: REGISTERED ENTITY INFORMATION**
**B.1 Identify your organization**

Company Name:

Company Address:

Compliance Registry ID:

**B.2 Identify the individual in your organization who will be the Entity Contact regarding this Mitigation Plan.**

Name:

**SECTION C: IDENTIFICATION OF ALLEGED OR CONFIRMED VIOLATION(S) ASSOCIATED WITH THIS MITIGATION PLAN**
**C.1 This Mitigation Plan is associated with the following Alleged or Confirmed violation(s) of Reliability Standard listed below.**

Standard:

Requirement	Regional ID	NERC Violation ID	Date Issue Reported
R4.	SERC2012-401449	SERC2012010563	6/21/2012
R11.	SERC2012-401450	SERC2012010564	6/21/2012

**C.2 Identify the cause of the Alleged or Confirmed violation(s) identified above:**

Entergy's independent evaluation identified a combination of causal factors, including: the load forecast provided by the ICT was low; insufficient generation was committed in advance within the Acadiana Load Pocket of the RC's territory; the inability of ALP generation resources to start on short notice; a fault and outage on the Richard-Scott line due to a failed splice; and closing the normally open 8820 breaker to relieve overloaded conditions which led to overloading another line.

[Attachments \(\)](#)

**C.3 Provide any additional relevant information regarding the Alleged or Confirmed violations associated with this MitigationPlan:**

None.

[Attachments \(\)](#)

**SECTION D: DETAILS OF PROPOSED MITIGATION PLAN**
**D.1 Identify and describe the action plan, including specific tasks and actions that your organization is proposing to undertake, or which it undertook if this Mitigation Plan has been completed, to correct the Alleged or Confirmed violations identified above in Part C.1 of this form:**

Actions completed include:

- Entergy has implemented the MISO Outage Operations Procedure (RTO-IOP-052). This procedure requires daily outage verification, defined start and stop time for outages, and real time approval prior to outage start (completed April 8, 2013).
- Acadiana load shed lessons learned were shared with involved SOC personnel (completed January 5, 2011).
- SOC implemented an operator qualification process as part of the PER-005 efforts to ensure that operators have been tested and qualified to work specific desks (completed



- April 1, 2013).
4. Three part communication, human performance and directive training performed for SOC operators and TOC dispatchers. (Completed March 24, 2011).
5. Procedure SOC-P-019, SOL and IROL Procedure was updated (completed December 1, 2012).
6. RTA checklist process was implemented to provide the operators a checklist to review at the end of each shift to ensure that they have completed all required tasks and documentation. Documentation of the completion of the New Day Analysis is a part of this checklist (completed July 31, 2013).

#### [Attachments \(\)](#)

D.2 Provide the date by which full implementation of the Mitigation Plan will be, or has been, completed with respect to the Alleged or Confirmed violations identified above. State whether the Mitigation Plan has been fully implemented:

7/31/2013

D.3 Enter Milestone Activities, with due dates, that your organization is proposing, or has completed, for this Mitigation Plan:

#### [Acadiana Load shed lessons learned review](#)

Milestone Completed (Due: 1/5/2011 and Completed 1/5/2011)

Acadiana load shed lessons learned were shared with involved SOC personnel.

#### [Three part communication, human performance and directive training](#)

Milestone Completed (Due: 3/24/2011 and Completed 3/24/2011)

Three part communication, human performance and directive training performed for SOC operators and TOC dispatchers.

#### [Procedure SOC-P-019 update](#)

Milestone Completed (Due: 12/1/2012 and Completed 12/1/2012)

Procedure SOC-P-019, SOL and IROL Procedure was updated.

#### [Operator qualification process](#)

Milestone Completed (Due: 4/1/2013 and Completed 4/1/2013)

SOC implemented an operator qualification process as part of the PER-005 efforts to ensure that operators have been tested and qualified to work specific desks

#### [MISO Outage Operations Procedure](#)

Milestone Completed (Due: 4/8/2013 and Completed 4/8/2013)

Entergy has implemented the MISO Outage Operations Procedure (RTO-IOP-052). This procedure requires daily outage verification, defined start and stop time for outages, and real time approval prior to outage start

#### [RTA checklist process](#)

Milestone Completed (Due: 7/31/2013 and Completed 7/31/2013)

RTA checklist process was implemented to provide the operators a checklist to review at the end of each shift to ensure that they have completed all required tasks and documentation. Documentation of the completion of the New Day Analysis is a part of this checklist

### SECTION E: INTERIM AND FUTURE RELIABILITY RISK

E.1 Abatement of Interim BPS Reliability Risk: While your organization is implementing this Mitigation Plan the reliability of the Bulk Power Supply (BPS) may remain at higher risk or be otherwise negatively impacted until the plan is successfully completed. To the extent they are, or may be, known or anticipated: (i) identify any such risks or impacts; and (ii) discuss any actions that your organization is planning to take to mitigate this increased risk to the reliability of the BPS. (Additional detailed information may be provided as an attachment):

No interim risks have been identified, thus no interim actions are recommended.

#### [Attachments \(\)](#)

E.2 Prevention of Future BPS Reliability Risk: Describe how successful completion of this Mitigation Plan will prevent or minimize the probability that your organization incurs further risk of Alleged violations of the same or similar reliability standards requirements in the future. (Additional detailed information may be provided as an attachment):

The MISO procedure enhances coordination of outages with the RC. Internal procedural updates and checklists provide additional documentation of coordination. Additionally, training has been conducted to share lessons learned from this event and improve operator awareness.

#### [Attachments \(\)](#)

### SECTION F: AUTHORIZATION

An authorized individual must sign and date this Mitigation Plan Submittal Form. By doing so, this individual, on behalf of your organization:

- a) Submits this Mitigation Plan for acceptance by SERC and approval by NERC, and
- b) If applicable, certifies that this Mitigation Plan was completed on or before the date provided as the 'Date of Completion of the Mitigation Plan' on this form, and

• c) Acknowledges:

- I am Mark McCulla of Entergy
- I am qualified to sign this Mitigation Plan on behalf of Entergy
- I understand Entergy's obligations to comply with Mitigation Plan requirements and ERO remedial action directives as well as ERO documents, including, but not limited to, the NERC Rules of Procedure, including Appendix 4 (Compliance Monitoring and Enforcement Program of the North American Electric Reliability Corporation (NERC CMEP))
- I have read and am familiar with the contents of this Mitigation Plan
- Entergy agrees to comply with, this Mitigation Plan, including the timetable completion date, as accepted by SERC and approved by NERC

#### SECTION G: REGIONAL ENTITY CONTACT



SERC Single Point of Contact (SPOC)

This item was signed by Mark McCulla (mmccul1@entergy.com) on 11/27/2013

This item was marked ready for signature by Mark O'Donnell (modonne@entergy.com) on 11/27/2013

## MEMBER MITIGATION PLAN CLOSURE

All Mitigation Plan Completion Certification submittals shall include data or information sufficient for SERC to verify completion of the Mitigation Plan. SERC may request such additional data or information and conduct follow-up assessments, on-site or other Spot Checking, or Compliance Audits as it deems necessary to verify that all required actions in the Mitigation Plan have been completed and the Registered Entity is in compliance with the subject Reliability Standard. (CMEP Section 6.6) Data or information submitted may become part of a public record upon final disposition of the possible violation, therefore any confidential information contained therein should be marked as such in accordance with the provisions of Section 1500 of the NERC Rules of Procedure.

Name of Registered Entity submitting certification:

Entergy

Name of Standard of mitigation violation(s):

TOP-002-2a

Requirement	Tracking Number	NERC Violation ID
R4.	SERC2012-401449	SERC2012010563
R11.	SERC2012-401450	SERC2012010564

Date of completion of the Mitigation Plan:

7/31/2013

[Acadiana Load shed lessons learned review](#)

Milestone Completed (Due: 1/5/2011 and Completed 1/5/2011)

[Attachments \(1\)](#)

Acadiana load shed lessons learned were shared with involved SOC personnel.

[Three part communication, human performance and directive training](#)

Milestone Completed (Due: 3/24/2011 and Completed 3/24/2011)

[Attachments \(17\)](#)

Three part communication, human performance and directive training performed for SOC operators and TOC dispatchers.

[Procedure SOC-P-019 update](#)

Milestone Completed (Due: 12/1/2012 and Completed 12/1/2012)

[Attachments \(1\)](#)

Procedure SOC-P-019, SOL and IROL Procedure was updated.

[Operator qualification process](#)

Milestone Completed (Due: 4/1/2013 and Completed 4/1/2013)

[Attachments \(1\)](#)

SOC implemented an operator qualification process as part of the PER-005 efforts to ensure that operators have been tested and qualified to work specific desks

[MISO Outage Operations Procedure](#)

Milestone Completed (Due: 4/8/2013 and Completed 4/8/2013)

[Attachments \(1\)](#)

Entergy has implemented the MISO Outage Operations Procedure (RTO-IOP-052). This procedure requires daily outage verification, defined start and stop time for outages, and real time approval prior to outage start

[RTA checklist process](#)

Milestone Completed (Due: 7/31/2013 and Completed 7/31/2013)

[Attachments \(1\)](#)

RTA checklist process was implemented to provide the operators a checklist to review at the end of each shift to ensure that they have completed all required tasks and documentation. Documentation of the completion of the New Day Analysis is a part of this checklist

Summary of all actions described in Part D of the relevant mitigation plan:

Actions completed include:

1. Entergy has implemented the MISO Outage Operations Procedure (RTO-IOP-052). This procedure requires daily outage verification, defined start and stop time for outages, and real time approval prior to outage start (completed April 8, 2013).
2. Acadiana load shed lessons learned were shared with involved SOC personnel (completed January 5, 2011).
3. SOC implemented an operator qualification process as part of the PER-005 efforts to ensure that operators have been tested and qualified to work specific desks (completed April 1, 2013).

4. Three part communication, human performance and directive training performed for SOC operators and TOC dispatchers. (Completed March 24, 2011).
5. Procedure SOC-P-019, SOL and IROL Procedure was updated (completed December 1, 2012).
6. RTA checklist process was implemented to provide the operators a checklist to review at the end of each shift to ensure that they have completed all required tasks and documentation. Documentation of the completion of the New Day Analysis is a part of this checklist (completed July 31, 2013).

**Description of the information provided to SERC for their evaluation \***

Supporting documentation as noted above is providedd in support of mitigation plan closure.

I certify that the Mitigation Plan for the above-named violation has been completed on the date shown above. In doing so, I certify that all required Mitigation Plan actions described in Part D of the relevant Mitigation Plan have been completed, compliance has been restored, the above-named entity is currently compliant with all of the requirements of the referenced standard, and that all information submitted is complete, true and correct to the best of my knowledge.

## **Attachment c**

### **Record documents for the violation of TOP-004-2 R1**

**c-1. SERC's Source Document dated June 21, 2012**

**c-2. Entergy's Mitigation Plan designated as SERCMIT010119 submitted November 7, 2013**

**c-3. Entergy's Certification of Mitigation Plan Completion dated November 27, 2013**



## Post On-site Audit/Off-site Audit/Spot Check/Investigation Screening Worksheet

Prepared By: Mark Ladrow

Submittal Date: 6/21/12

Compliance Monitoring Method (On-site Audit, Off-site Audit, Spot-Check, or Investigation): CI

Registered Entity: Entergy

NERC Registry ID: NCR01234

Registered Entity Contact Information:

Name: Mark McCulla

Email: mmccul1@entergy.com

Standard: TOP-004-2

Requirement: R1

Sub Requirement(s):

Function(s) Applicable to Possible Violation:

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Date violation occurred: 12/27/10

Date violation discovered (End Date of On-site Audit, Off-site Audit, Spot Check, or Investigation): 4/23/12

Is the violation still occurring? ☐ # ~ 1 ### ☒ # 1 #

Detailed explanation and cause of violation: On page 18 of Entergy's response to SERC's RFI #2 question number 17, Entergy stated "[f]or reliability study purposes, the North Crowley-Scott and Richard-Colonial Academy lines were defined as SOLs for the date/time of the event" and added further "North Crowley-Scott and Richard-Colonial Academy were also defined in existing IDC flowgates on the date of the event". In the SPP, flowgates are synonymous with SOLs. If Entergy had appropriately monitored and observed these flowgates/SOLs in its day-ahead studies, these real-time overloads, of normal and emergency limits, should not have occurred. Entergy's response to SERC's RFI #2 question number 18, Entergy indicated that North Crowley-



Scott 138 kV line exceeded its real-time operating limit for ten minutes; and Richard-Colonial Academy 138 kV line exceeded its real-time operating limit for 36 minutes on December 27, 2010. Entergy, by its own admission, did not operate its system within existing System Operating Limits (normal or emergency) in real-time.

**Reliability Impact (Minimal, Moderate, or Severe): Moderate**

**Reliability Impact Description:** Failure to recognize and adhere to SOLs could be quite risky to interconnected operations; an element loaded above its limit is being stressed and is more likely to fail. Once a single over-loaded element fails, its share of load is then redistributed over remaining facilities- possibly over-loading those and rapidly spiraling to severe consequences.

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Please complete the form as completely as possible and email to [serccomply@serc1.org](mailto:serccomply@serc1.org).



**VIEW MITIGATION PLAN: TOP-004-2 (REGION REVIEWING MITIGATION PLAN)**

This item was signed by Mark McCulla (mmccul1@entergy.com) on 11/7/2013

This item was marked ready for signature by Mark O'Donnell (modonne@entergy.com) on 11/7/2013

**SECTION A: COMPLIANCE NOTICES & MITIGATION PLAN REQUIREMENTS**

A.1 Notices and requirements applicable to Mitigation Plans and this Submittal Form are set forth in "[Attachment A - Compliance Notices & Mitigation Plan Requirements](#)" to this form.

[Yes] A.2 I have reviewed Attachment A and understand that this Mitigation Plan Submittal Form will not be accepted unless this box is checked.

**SECTION B: REGISTERED ENTITY INFORMATION**
**B.1 Identify your organization**

Company Name: Entergy

Company Address: 639 Loyola Avenue

New Orleans, Louisiana 70113

Compliance Registry ID: NCR01234

**B.2 Identify the individual in your organization who will be the Entity Contact regarding this Mitigation Plan.**

Name: Mark O'Donnell

**SECTION C: IDENTIFICATION OF ALLEGED OR CONFIRMED VIOLATION(S) ASSOCIATED WITH THIS MITIGATION PLAN**
**C.1 This Mitigation Plan is associated with the following Alleged or Confirmed violation(s) of Reliability Standard listed below.**

Standard: TOP-004-2

Requirement	Regional ID	NERC Violation ID	Date Issue Reported
R1.	SERC2012-401451	SERC2012010565	6/21/2012

**C.2 Identify the cause of the Alleged or Confirmed violation(s) identified above:**

Entergy's independent evaluation identified a combination of causal factors, including: the load forecast provided by the ICT was low; insufficient generation was committed in advance within the Acadiana Load Pocket of the RC's territory; the inability of ALP generation resources to start on short notice; a fault and outage on the Richard-Scott line due to a failed splice; and closing the normally open 8820 breaker to relieve overloaded conditions which led to overloading another line.

[Attachments \(\)](#)

**C.3 Provide any additional relevant information regarding the Alleged or Confirmed violations associated with this MitigationPlan:**

None.

[Attachments \(\)](#)

**SECTION D: DETAILS OF PROPOSED MITIGATION PLAN**
**D.1 Identify and describe the action plan, including specific tasks and actions that your organization is proposing to undertake, or which it undertook if this Mitigation Plan has been completed, to correct the Alleged or Confirmed violations identified above in Part C.1 of this form:**

Actions completed include:

- Entergy has implemented the MISO Outage Operations Procedure (RTO-IOP-052). This procedure requires daily outage verification, defined start and stop time for outages, and real time approval prior to outage start (completed April 8, 2013).
- Acadiana lessons learned were shared with involved SOC personnel (completed January 5, 2011).
- SOC implemented an operator qualification process as part of the PER-005 efforts to ensure that operators have been tested and qualified to work specific desks (completed April 1, 2013).
- Three part communication, human performance and directive training performed for SOC operators and TOC dispatchers, (Completed March 24, 2011).

5. Procedure SOC-P-019, SOL and IROL Procedure was updated (December 1, 2012).

[Attachments \(\)](#)

D.2 Provide the date by which full implementation of the Mitigation Plan will be, or has been, completed with respect to the Alleged or Confirmed violations identified above. State whether the Mitigation Plan has been fully implemented:

4/8/2013

D.3 Enter Milestone Activities, with due dates, that your organization is proposing, or has completed, for this Mitigation Plan:

[Acadiana loadshed lessons learned review](#)

Milestone Completed (Due: 1/5/2011 and Completed 1/5/2011)

Acadiana load shed lessons learned were shared with involved SOC personnel.

[Three part communication, human performance and directive training](#)

Milestone Completed (Due: 3/24/2011 and Completed 3/24/2011)

Three part communication, human performance and directive training performed for SOC operators and TOC dispatchers.

[Procedure SOC-P-019 update](#)

Milestone Completed (Due: 12/1/2012 and Completed 12/1/2012)

Procedure SOC-P-019, SOL and IROL Procedure was updated .

[Operator qualification process](#)

Milestone Completed (Due: 4/1/2013 and Completed 4/1/2013)

SOC implemented an operator qualification process as part of the PER-005 efforts to ensure that operators have been tested and qualified to work specific desks.

[MISO Outage Operations Procedure](#)

Milestone Completed (Due: 4/8/2013 and Completed 4/8/2013)

Entergy has implemented the MISO Outage Operations Procedure (RTO-IOP-052). This procedure requires daily outage verification, defined start and stop time for outages, and real time approval prior to outage start .

SECTION E: INTERIM AND FUTURE RELIABILITY RISK

E.1 Abatement of Interim BPS Reliability Risk: While your organization is implementing this Mitigation Plan the reliability of the Bulk Power Supply (BPS) may remain at higher risk or be otherwise negatively impacted until the plan is successfully completed. To the extent they are, or may be, known or anticipated: (i) identify any such risks or impacts; and (ii) discuss any actions that your organization is planning to take to mitigate this increased risk to the reliability of the BPS. (Additional detailed information may be provided as an attachment):

No interim risks have been identified, thus no interim actions are recommended.

[Attachments \(\)](#)

E.2 Prevention of Future BPS Reliability Risk: Describe how successful completion of this Mitigation Plan will prevent or minimize the probability that your organization incurs further risk of Alleged violations of the same or similar reliability standards requirements in the future. (Additional detailed information may be provided as an attachment):

The MISO procedure enhances coordination of outages with the RC. Internal procedural updates and checklists provide additional documentation of coordination. Additionally, training has been conducted to share lessons learned from this event and improve operator awareness.

[Attachments \(\)](#)

SECTION F: AUTHORIZATION

An authorized individual must sign and date this Mitigation Plan Submittal Form. By doing so, this individual, on behalf of your organization:

- a) Submits this Mitigation Plan for acceptance by SERC and approval by NERC, and
- b) If applicable, certifies that this Mitigation Plan was completed on or before the date provided as the 'Date of Completion of the Mitigation Plan' on this form, and
- c) Acknowledges:
  - I am Mark McCulla of Entergy
  - I am qualified to sign this Mitigation Plan on behalf of Entergy
  - I understand Entergy's obligations to comply with Mitigation Plan requirements and ERO remedial action directives as well as ERO documents, including, but not limited to, the NERC Rules of Procedure, including Appendix 4 (Compliance Monitoring and Enforcement Program of the North American Electric Reliability Corporation (NERC CMEP))
  - I have read and am familiar with the contents of this Mitigation Plan

- Entergy agrees to comply with, this Mitigation Plan, including the timetable completion date, as accepted by SERC and approved by NERC

SECTION G: REGIONAL ENTITY CONTACT



SERC Single Point of Contact (SPOC)

## VIEW MITIGATION PLAN CLOSURE: TOP-004-2 (MITIGATION PLAN CLOSURE COMPLETED)

This item was signed by Mark McCulla (mmccul1@entergy.com) on 11/27/2013

This item was marked ready for signature by Mark O'Donnell (modonne@entergy.com) on 11/27/2013

## MEMBER MITIGATION PLAN CLOSURE

All Mitigation Plan Completion Certification submittals shall include data or information sufficient for SERC to verify completion of the Mitigation Plan. SERC may request such additional data or information and conduct follow-up assessments, on-site or other Spot Checking, or Compliance Audits as it deems necessary to verify that all required actions in the Mitigation Plan have been completed and the Registered Entity is in compliance with the subject Reliability Standard. (CMEP Section 6.6) Data or information submitted may become part of a public record upon final disposition of the possible violation, therefore any confidential information contained therein should be marked as such in accordance with the provisions of Section 1500 of the NERC Rules of Procedure.

Name of Registered Entity submitting certification:

Entergy

Name of Standard of mitigation violation(s):

TOP-004-2

Requirement	Tracking Number	NERC Violation ID
R1.	SERC2012-401451	SERC2012010565

Date of completion of the Mitigation Plan:

4/8/2013

Acadiana loadshed lessons learned review

Milestone Completed (Due: 1/5/2011 and Completed 1/5/2011)

Attachments (1)

Acadiana load shed lessons learned were shared with involved SOC personnel.

Three part communication, human performance and directive training

Milestone Completed (Due: 3/24/2011 and Completed 3/24/2011)

Attachments (17)

Three part communication, human performance and directive training performed for SOC operators and TOC dispatchers.

Procedure SOC-P-019 update

Milestone Completed (Due: 12/1/2012 and Completed 12/1/2012)

Attachments (1)

Procedure SOC-P-019, SOL and IROL Procedure was updated .

Operator qualification process

Milestone Completed (Due: 4/1/2013 and Completed 4/1/2013)

Attachments (1)

SOC implemented an operator qualification process as part of the PER-005 efforts to ensure that operators have been tested and qualified to work specific desks.

MISO Outage Operations Procedure

Milestone Completed (Due: 4/8/2013 and Completed 4/8/2013)

Attachments (1)

Entergy has implemented the MISO Outage Operations Procedure (RTO-IOP-052). This procedure requires daily outage verification, defined start and stop time for outages, and real time approval prior to outage start .

Summary of all actions described in Part D of the relevant mitigation plan:

Actions completed include:

1. Entergy has implemented the MISO Outage Operations Procedure (RTO-IOP-052). This procedure requires daily outage verification, defined start and stop time for outages, and real time approval prior to outage start (completed April 8, 2013).
2. Acadiana lessons learned were shared with involved SOC personnel (completed January 5, 2011).
3. SOC implemented an operator qualification process as part of the PER-005 efforts to ensure that operators have been tested and qualified to work specific desks (completed April 1, 2013).
4. Three part communication, human performance and directive training performed for SOC operators and TOC dispatchers, (Completed March 24, 2011).
5. Procedure SOC-P-019, SOL and IROL Procedure was updated (December 1, 2012).

Description of the information provided to SERC for their evaluation \*

Information as noted above is provided in support of mitigation plan closure.

I certify that the Mitigation Plan for the above-named violation has been completed on the date shown above. In doing so, I certify that all required Mitigation Plan actions described in Part D of the relevant Mitigation Plan have been completed, compliance has been restored, the above-named entity is currently compliant with all of the requirements of the referenced standard, and that all information submitted is complete, true and correct to the best of my knowledge.

## **Attachment d**

### **Record documents for the violation of TOP-008-1 R2**

- d-1. SERC's Source Document dated June 21, 2012**
  - d-2. Entergy's Mitigation Plan designated as SERCMIT010120 submitted November 7, 2013**
  - d-3. Entergy's Certification of Mitigation Plan Completion dated November 27, 2013**
-



## Post On-site Audit/Off-site Audit/Spot Check/Investigation Screening Worksheet

Prepared By: Mark Ladrow

Submittal Date: 6/21/12

Compliance Monitoring Method (On-site Audit, Off-site Audit, Spot-Check, or Investigation): CI

Registered Entity: Entergy

NERC Registry ID: NCR01234

Registered Entity Contact Information:

Name: Mark McCulla

Email: mmccul1@entergy.com

Standard: TOP-008-1

Requirement: R2

Sub Requirement(s):

Function(s) Applicable to Possible Violation:

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Date violation occurred: 12/27/10

Date violation discovered (End Date of On-site Audit, Off-site Audit, Spot Check, or Investigation): 4/23/12

Is the violation still occurring? ☐ # ~ 1 ### ☒ # 1 #

Detailed explanation and cause of violation: Entergy operators took the action to close normally open Scott breaker 8820 without understanding the impact this action would have on Entergy's or any other entity's system. The operators (SOC and TOC) discussed the potential impacts of closing the breaker for less than 30 seconds and executed the close command for the breaker within one minute of the first mention of the breaker. Since Entergy's normal operation of this breaker was open and topology in the Acadiana Load Pocket is changing rapidly with several upgrade projects recently completed and/or under construction, the closing of normally open Scott breaker 8820 could have had an effect much different than was anticipated based on





historical operator knowledge. The standard of "...operat[ing] to prevent the likelihood that a disturbance, action, or inaction will result in an IROL or SOL violation in its area or another area of the Interconnection" necessarily precludes taking actions based on very limited knowledge, guesses, or "shooting from the hip". In executing this action, Entergy solved one SOL violation and thereby created another SOL violation in violation of TOP-008 R2.

**Reliability Impact (Minimal, Moderate, or Severe): Severe**


**Reliability Impact Description:** Entergy's action simply moved the location of an SOL violation from one line to another; luckily the second line overload was about the same (%) as the original overload. If the second overload was significantly greater than the first the line could have tripped and created a cascade.

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Please complete the form as completely as possible and email to [serccomply@serc1.org](mailto:serccomply@serc1.org).



**VIEW MITIGATION PLAN: TOP-008-1 (REGION REVIEWING MITIGATION PLAN)**

 This item was signed by Mark McCulla (mmccul1@entergy.com) on 11/7/2013

 This item was marked ready for signature by Mark O'Donnell (modonne@entergy.com) on 11/7/2013

**SECTION A: COMPLIANCE NOTICES & MITIGATION PLAN REQUIREMENTS**

A.1 Notices and requirements applicable to Mitigation Plans and this Submittal Form are set forth in "[Attachment A - Compliance Notices & Mitigation Plan Requirements](#)" to this form.

[Yes] A.2 I have reviewed Attachment A and understand that this Mitigation Plan Submittal Form will not be accepted unless this box is checked.

**SECTION B: REGISTERED ENTITY INFORMATION**
**B.1 Identify your organization**

Company Name: Entergy

Company Address: 639 Loyola Avenue

New Orleans, Louisiana 70113

Compliance Registry ID: NCR01234

**B.2 Identify the individual in your organization who will be the Entity Contact regarding this Mitigation Plan.**

Name: Mark O'Donnell

**SECTION C: IDENTIFICATION OF ALLEGED OR CONFIRMED VIOLATION(S) ASSOCIATED WITH THIS MITIGATION PLAN**
**C.1 This Mitigation Plan is associated with the following Alleged or Confirmed violation(s) of Reliability Standard listed below.**

Standard: TOP-008-1

Requirement	Regional ID	NERC Violation ID	Date Issue Reported
R2.	SERC2012-401453	SERC2012010567	6/21/2012

**C.2 Identify the cause of the Alleged or Confirmed violation(s) identified above:**

Entergy's independent evaluation identified a combination of causal factors, including: the load forecast provided by the ICT was low; insufficient generation was committed in advance within the Acadiana Load Pocket (ALP) of the RC's territory; the inability of ALP generation resources to start on short notice; a fault and outage on the Richard-Scott line due to a failed splice; and closing the normally open 8820 breaker to relieve overloaded conditions which led to overloading another line.

[Attachments \(\)](#)

**C.3 Provide any additional relevant information regarding the Alleged or Confirmed violations associated with this MitigationPlan:**

None.

[Attachments \(\)](#)

**SECTION D: DETAILS OF PROPOSED MITIGATION PLAN**
**D.1 Identify and describe the action plan, including specific tasks and actions that your organization is proposing to undertake, or which it undertook if this Mitigation Plan has been completed, to correct the Alleged or Confirmed violations identified above in Part C.1 of this form:**

Actions completed include:

- Entergy has implemented the MISO Outage Operations Procedure (RTO-IOP-052). This procedure requires daily outage verification, defined start and stop time for outages, and real time approval prior to outage start (completed April 8, 2013).
- Acadiana load shed lessons learned were shared with involved SOC personnel (completed January 5, 2011).
- SOC implemented an operator qualification process as part of the PER-005 efforts to ensure that operators have been tested and qualified to work specific desks (completed April 1, 2013).
- Three part communication, human performance and directive training performed for SOC operators and TOC dispatchers.(completed March 24, 2011).

[Attachments \(\)](#)

D.2 Provide the date by which full implementation of the Mitigation Plan will be, or has been, completed with respect to the Alleged or Confirmed violations identified above. State whether the Mitigation Plan has been fully implemented:

4/8/2013

D.3 Enter Milestone Activities, with due dates, that your organization is proposing, or has completed, for this Mitigation Plan:

[Acadiana load shed lessons learned review](#)

Milestone Completed (Due: 1/5/2011 and Completed 1/5/2011)

Acadiana lessons learned were shared with involved SOC personnel.

[Three part communication, human performance and directive training](#)

Milestone Completed (Due: 3/24/2011 and Completed 3/24/2011)

Three part communication, human performance and directive training performed for SOC operators and TOC dispatchers.

[Operator qualification process](#)

Milestone Completed (Due: 4/1/2013 and Completed 4/1/2013)

SOC implemented an operator qualification process as part of the PER-005 efforts to ensure that operators have been tested and qualified to work specific desks.

[MISO Outage Operations Procedure](#)

Milestone Completed (Due: 4/8/2013 and Completed 4/8/2013)

Entergy has implemented the MISO Outage Operations Procedure (RTO-IOP-052). This procedure requires daily outage verification, defined start and stop time for outages, and real time approval prior to outage start .

SECTION E: INTERIM AND FUTURE RELIABILITY RISK

E.1 Abatement of Interim BPS Reliability Risk: While your organization is implementing this Mitigation Plan the reliability of the Bulk Power Supply (BPS) may remain at higher risk or be otherwise negatively impacted until the plan is successfully completed. To the extent they are, or may be, known or anticipated: (i) identify any such risks or impacts; and (ii) discuss any actions that your organization is planning to take to mitigate this increased risk to the reliability of the BPS. (Additional detailed information may be provided as an attachment):

No interim risks have been identified, thus no interim actions are recommended.

[Attachments \(\)](#)

E.2 Prevention of Future BPS Reliability Risk: Describe how successful completion of this Mitigation Plan will prevent or minimize the probability that your organization incurs further risk of Alleged violations of the same or similar reliability standards requirements in the future. (Additional detailed information may be provided as an attachment):

The MISO procedure enhances coordination of outages with the RC. Internal procedural updates and checklists provide additional documentation of coordination. Additionally, training has been conducted to share lessons learned from this event and improve operator awareness.

[Attachments \(\)](#)

SECTION F: AUTHORIZATION

An authorized individual must sign and date this Mitigation Plan Submittal Form. By doing so, this individual, on behalf of your organization:

- a) Submits this Mitigation Plan for acceptance by SERC and approval by NERC, and
- b) If applicable, certifies that this Mitigation Plan was completed on or before the date provided as the 'Date of Completion of the Mitigation Plan' on this form, and
- c) Acknowledges:
  - I am Mark McCulla of Entergy
  - I am qualified to sign this Mitigation Plan on behalf of Entergy
  - I understand Entergy's obligations to comply with Mitigation Plan requirements and ERO remedial action directives as well as ERO documents, including, but not limited to, the NERC Rules of Procedure, including Appendix 4 (Compliance Monitoring and Enforcement Program of the North American Electric Reliability Corporation (NERC CMEP))
  - I have read and am familiar with the contents of this Mitigation Plan
  - Entergy agrees to comply with, this Mitigation Plan, including the timetable completion date, as accepted by SERC and approved by NERC

SECTION G: REGIONAL ENTITY CONTACT



This item was signed by Mark McCulla (mmccul1@entergy.com) on 11/27/2013

This item was marked ready for signature by Mark O'Donnell (modonne@entergy.com) on 11/27/2013

## MEMBER MITIGATION PLAN CLOSURE

All Mitigation Plan Completion Certification submittals shall include data or information sufficient for SERC to verify completion of the Mitigation Plan. SERC may request such additional data or information and conduct follow-up assessments, on-site or other Spot Checking, or Compliance Audits as it deems necessary to verify that all required actions in the Mitigation Plan have been completed and the Registered Entity is in compliance with the subject Reliability Standard. (CMEP Section 6.6) Data or information submitted may become part of a public record upon final disposition of the possible violation, therefore any confidential information contained therein should be marked as such in accordance with the provisions of Section 1500 of the NERC Rules of Procedure.

Name of Registered Entity submitting certification:

Entergy

Name of Standard of mitigation violation(s):

TOP-008-1

Requirement	Tracking Number	NERC Violation ID
R2.	SERC2012-401453	SERC2012010567

Date of completion of the Mitigation Plan:

4/8/2013

[Acadiana load shed lessons learned review](#)

Milestone Completed (Due: 1/5/2011 and Completed 1/5/2011)

[Attachments \(1\)](#)

Acadiana lessons learned were shared with involved SOC personnel.

[Three part communication, human performance and directive training](#)

Milestone Completed (Due: 3/24/2011 and Completed 3/24/2011)

[Attachments \(17\)](#)

Three part communication, human performance and directive training performed for SOC operators and TOC dispatchers.

[Operator qualification process](#)

Milestone Completed (Due: 4/1/2013 and Completed 4/1/2013)

[Attachments \(1\)](#)

SOC implemented an operator qualification process as part of the PER-005 efforts to ensure that operators have been tested and qualified to work specific desks.

[MISO Outage Operations Procedure](#)

Milestone Completed (Due: 4/8/2013 and Completed 4/8/2013)

[Attachments \(1\)](#)

Entergy has implemented the MISO Outage Operations Procedure (RTO-IOP-052). This procedure requires daily outage verification, defined start and stop time for outages, and real time approval prior to outage start .

Summary of all actions described in Part D of the relevant mitigation plan:

Actions completed include:

1. Entergy has implemented the MISO Outage Operations Procedure (RTO-IOP-052). This procedure requires daily outage verification, defined start and stop time for outages, and real time approval prior to outage start (completed April 8, 2013).
2. Acadiana load shed lessons learned were shared with involved SOC personnel (completed January 5, 2011).
3. SOC implemented an operator qualification process as part of the PER-005 efforts to ensure that operators have been tested and qualified to work specific desks (completed April 1, 2013).
4. Three part communication, human performance and directive training performed for SOC operators and TOC dispatchers.(completed March 24, 2011).

Description of the information provided to SERC for their evaluation \*

Information as noted above is provided in support of mitigation plan closure.

I certify that the Mitigation Plan for the above-named violation has been completed on the date shown above. In doing so, I certify that all required Mitigation Plan actions described in Part D of the relevant Mitigation Plan have been completed, compliance has been restored, the above-named entity is currently compliant with all of the requirements of the referenced standard, and that all information submitted is complete, true and correct to the best of my knowledge.

