

February 28, 2017

VIA ELECTRONIC FILING

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

**Re: NERC Full Notice of Penalty regarding Mississippi Power Company,
FERC Docket No. NP17-_-000**

Dear Ms. Bose:

The North American Electric Reliability Corporation (NERC) hereby provides this Notice of Penalty¹ regarding Mississippi Power Company (MPC), NERC Registry ID# NCR01273,² with information and details regarding the nature and resolution of the violation³ discussed in detail in the Settlement Agreement attached hereto (Attachment A), 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)).⁴

¹ *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 (2016). *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).

² MPC was included on the NERC Compliance Registry as a Distribution Provider, Generator Owner, and Transmission Owner (TO) on May 31, 2007.

³ 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.

⁴ See 18 C.F.R. § 39.7(c)(2) and 18 C.F.R. § 39.7(d).

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Atlanta, GA 30326
404-446-2560 | www.nerc.com**

NERC Notice of Penalty
Mississippi Power Company
February 28, 2017
Page 2

NERC is filing this Notice of Penalty with the Commission because SERC Reliability Corporation (SERC) and MPC have entered into a Settlement Agreement to resolve all outstanding issues arising from SERC's determination and findings of the violation of FAC-003-3 R2.

According to the Settlement Agreement, executed March 16, 2016, MPC admits the violation and has agreed to the assessed penalty of forty thousand dollars (\$40,000), in addition to other remedies and actions to mitigate the instant violation and facilitate future compliance under the terms and conditions of the Settlement Agreement.

Statement of Findings Underlying the Violation

This Notice of Penalty incorporates the findings and justifications set forth in the Settlement Agreement, by and between SERC and MPC. 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 (2016), NERC provides the following summary table identifying each violation of a Reliability Standard resolved by the Settlement Agreement. Further information on the subject violation is set forth in the Settlement Agreement and herein.

*SR = Self-Report / SC = Self-Certification / CA = Compliance Audit / SPC = Spot Check / CI = Compliance Investigation

NERC Violation ID	Standard	Req	VRF/VSL	Applicable Function(s)	Discovery Method* Date	Violation Start-End Date	Risk	Penalty Amount
SERC2015015011	FAC-003-3	R2	High/High	TO	SR 6/19/2015	6/4/2015	Moderate	\$40,000

SERC2015015011 FAC-003-3 R2- OVERVIEW

On June 19, 2015, MPC submitted a Self-Report stating that it was in noncompliance with FAC-003-3 R2. MPC identified a tree that had encroached the minimum vegetation clearance distance (MVCD) of a 230 kV transmission line, which caused a non-Sustained Outage of the line on June 4, 2015. MPC removed the tree the same day as the outage.

NERC Notice of Penalty
Mississippi Power Company
February 28, 2017
Page 3

After reenergizing the line, MPC dispatched a line crew to investigate. The line crew identified a tree in the right-of-way as the possible cause of the outage. The line crew determined that the highest point of the tree crown had evidence of flashover from the line. MPC observed the tree to have encroached the MVCD in real-time, constituting a violation of FAC-003-3.

The root cause of this violation was MPC personnel's failure to identify the tree as an encroachment risk during an annual inspection of the line by ground patrol in April 2015, two months prior to this incident. The transmission line was located in a fenced backyard in a residential area, which was also a no-fly zone, making a ground patrol the only means of inspecting the line. The tree was behind a fence and surrounded by junked vehicles, making identification of the encroachment difficult. MPC last mowed the accessible portions of the right of way beneath the line in 2013 and performed side trimming in 2012.

SERC determined that MPC did not manage vegetation to prevent encroachment into the MVCD of a line, which was not an element of an Interconnection Reliability Operating Limit. MPC observed the encroachment into the MVCD in real-time and absent a Sustained Outage.

SERC determined that this violation posed a moderate and not serious or substantial risk to the reliability of the bulk power system (BPS). Attachment AA includes the facts regarding the violation that SERC considered in its risk assessment.

MPC submitted its Mitigation Plan designated SERCMIT011845 to address the referenced violation on July 10, 2015. Attachment AA includes a description of the mitigation activities MPC took to address this violation. A copy of the Mitigation Plan is included as Attachment C.

SERC verified on November 20, 2015, that MPC had completed all mitigation activities on July 20, 2015. Attachment AA provides specific information on SERC's verification of MPC's completion of the activities.

MPC is an investor-owned, retail electric service company. Southern Company owns MPC's common stock, along with several other retail electric service companies. In addition to the mitigating activities MPC performed, Southern Company has agreed to complete the following additional actions to strengthen the Southern Company operating companies' vegetation management programs:

1. Southern Company identified key internal controls for vegetation management and incorporated them into its compliance monitoring and testing program.

2. Southern Company will complete a pilot program to assess the effectiveness of photogrammetric detection and ranging (PhoDAR) in a vegetation management application. Southern Company will share its pilot program results with the North American Transmission Forum Vegetation Management Practices Group by the end of Q2 2017.
3. Southern Company's reliability steering committee, an executive oversight committee, will review all of Southern Company's violations with NERC Reliability Standards and identify trends that may indicate broader compliance vulnerabilities across business units or operating companies.
4. Southern Company will use an existing internal vegetation management committee to identify and effect changes in its operating companies' vegetation management programs to ensure reliability, compliance, and continuous improvement.

Regional Entity's Basis for Penalty

According to the Settlement Agreement, SERC has assessed a penalty of forty thousand dollars (\$40,000) for the referenced violation. In reaching this determination, SERC considered the following factors:

1. the instant violation constitutes MPC's first occurrence of violation of the subject NERC Reliability Standard.
2. MPC had an internal compliance program at the time of the violation which SERC considered a mitigating factor, as discussed in Attachment AA;
3. MPC self-reported the violation;
4. MPC was cooperative throughout the compliance enforcement process. SERC considered MPC's cooperation to be a mitigating factor in the penalty determination;
5. MPC assumed responsibility for and admitted to the violation;
6. there was no evidence of any attempt to conceal a violation nor evidence of intent to do so;
7. the violation posed a moderate and not a serious or substantial risk to the reliability of the BPS, as discussed in Attachment AA;
8. the violation resulted in a loss of 16 MVA of load at a load bus for 0.809 seconds;
9. MPC will increase its inspection frequency for no-fly rights-of-way from annually to quarterly. MPC provided SERC with evidence it completed those inspections during the second and third quarters of 2016. Finally, MPC management will perform quarterly monitoring of the control activity, the results of which SCS Operations Compliance will retain and track to address any

identified deficiencies. SERC considered these activities to be above and beyond what MPC needed to mitigate the violation and therefore considered the activities to be a mitigating factor in the penalty determination, as discussed in Attachment AA;

10. SERC did not provide MPC any credit to the penalty amount for Southern Company's additional actions described above on pgs. 3-4; and
11. 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 forty thousand dollars (\$40,000) is appropriate and bears a reasonable relation to the seriousness and duration of the violation.

Statement Describing the Assessed Penalty, Sanction or Enforcement Action Imposed⁵

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,⁶ the NERC BOTCC reviewed the Settlement Agreement and supporting documentation on February 7, 2017 and approved 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 violation at issue.

For the foregoing reasons, the NERC BOTCC approved the Settlement Agreement and believes that the assessed penalty of forty thousand dollars (\$40,000) is appropriate for the violation 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.

⁵ See 18 C.F.R. § 39.7(d)(4).

⁶ *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).

NERC Notice of Penalty
Mississippi Power Company
February 28, 2017
Page 6

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 MPC executed March 16, 2016, included as Attachment A;
 - a. Disposition of Violation, included as Attachment AA to the Settlement Agreement;
- b) MPC's Self-Report for FAC-003-3 R2 dated June 19, 2015, included as Attachment B;
- c) MPC's Mitigation Plan designated as SERCMIT011845 submitted July 10, 2015, included as Attachment C; and
- d) MPC's Certification of Mitigation Plan Completion dated July 29, 2015, included as Attachment D.

NERC Notice of Penalty
Mississippi Power Company
February 28, 2017
Page 7

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

<p>Gary Taylor*</p> <p>President and Chief Executive Officer SERC Reliability Corporation 3701 Arco Corporate Drive, Suite 300 Charlotte, NC 28273 (704) 940-8205 (704) 357-7914 – facsimile gtaylor@serc1.org</p> <p>Holly A. Hawkins*</p> <p>General Counsel SERC Reliability Corporation 3701 Arco Corporate Drive, Suite 300 Charlotte, NC 28273 (704) 494-7775 (704) 357-7914 – facsimile hhawkins@serc1.org</p> <p>James M. McGrane*</p> <p>Managing Counsel – Enforcement SERC Reliability Corporation 3701 Arco Corporate Drive, Suite 300 Charlotte, NC 28273 (704) 494-7787 (704) 357-7914 – facsimile jmcgrane@serc1.org</p> <p>Rebecca A. Poulsen*</p> <p>Legal Counsel SERC Reliability Corporation 3701 Arco Corporate Drive, Suite 300 Charlotte, NC 28273 (704) 414-5230 (704) 357-7914 – facsimile rpoulsen@serc1.org</p>	<p>Sonia C. Mendonça*</p> <p>Vice President of Enforcement and Deputy General Counsel 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*</p> <p>Senior Counsel and Director of Enforcement Oversight 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>Leigh Anne Faugust*</p> <p>Counsel North American Electric Reliability Corporation 1325 G Street N.W. Suite 600 Washington, DC 20005 (202) 400-3023 (202) 644-8099 – facsimile leigh.faugust@nerc.net</p>
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NERC Notice of Penalty
Mississippi Power Company
February 28, 2017
Page 8

<p>Nicole A. Faulk*</p> <p>Vice President Customer Services Mississippi Power Company 2992 West Beach Boulevard Gulfport, Mississippi 39501-1907 (228) 865-5990 (228) 865-5490 - facsimile anfaulk@southernco.com</p> <p>Helen R. Nalley*</p> <p>Operations Compliance Director Southern Company Services 30 Ivan Allen Jr Blvd NW Atlanta, Georgia 30308 (404) 506-0805 (205) 257-7605 - facsimile hrnalley@southernco.com</p>	<p>*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.</p>
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NERC Notice of Penalty
Mississippi Power Company
February 28, 2017
Page 9

Conclusion

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

Respectfully submitted,

/s/ Edwin G. Kichline

Sonia C. Mendonça
Vice President of Enforcement and Deputy
General Counsel
Edwin G. Kichline
Senior Counsel and Director of
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cc: Mississippi Power Company
SERC Reliability Corporation

Attachments

Attachment A

Settlement Agreement by and between SERC and MPC executed March 16, 2016

a. Disposition of Violation, included as Attachment AA to the Settlement Agreement

SETTLEMENT AGREEMENT
OF
SERC RELIABILITY CORPORATION
AND
MISSISSIPPI POWER COMPANY

I. INTRODUCTION

1. SERC Reliability Corporation (SERC) and Mississippi Power Company (MPC) enter into this Settlement Agreement (Settlement Agreement) to resolve all outstanding issues arising from a preliminary and non-public assessment resulting in SERC's determination and findings, pursuant to the North American Electric Reliability Corporation (NERC) Rules of Procedure, of one confirmed violation.

Reliability Standard	Requirement	SERC Tracking No.	NERC Tracking No.
FAC-003-3	R2	SERC2015-402221	SERC2015015011

2. MPC **admits** the one violation and has agreed to the proposed penalty of **\$40,000** in addition to other remedies and actions to mitigate the instant violation and to ensure future compliance under the terms and conditions of the Settlement Agreement.

II. STIPULATION

3. The facts stipulated herein are stipulated solely for the purpose of resolving, between MPC and SERC, the matters discussed herein and do not constitute stipulations or admissions for any other purpose. MPC and SERC hereby stipulate and agree to the following:

Background

4. See Section I of the Disposition document (Attachment A) for a description of MPC.

Violation of NERC Reliability Standards

5. See Section II of the Disposition document (Attachment A) for the description of the violation.



III. PARTIES' SEPARATE REPRESENTATIONS

Statement of SERC and Summary of Findings

6. SERC determined that MPC was in violation of FAC-003-3 R2 because MPC failed to manage vegetation to prevent encroachment into the minimum vegetation clearance distance (MVCD) of a line, which was not an element of an Interconnection Reliability Operating Limit (IROL). MPC observed the encroachment into the MVCD in Real-time and absent a Sustained Outage. There was one violation included in the Disposition document, Attachment A.
7. SERC agrees that this Settlement Agreement is in the best interest of the parties and in the best interest of bulk power system reliability.

Statement of MPC

8. MPC **admits** the facts set forth and agreed to by the parties for purposes of this Settlement Agreement constitute a violation of the Standard and Requirement listed in the table above.
9. MPC 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. MPC agrees that this Settlement Agreement is in the best interest of the parties and in the best interest of BPS reliability.

IV. MITIGATING ACTIONS, REMEDIES AND SANCTIONS

10. SERC and MPC agree that MPC has completed the mitigating actions and SERC has verified the completion of the mitigating actions set forth in Section IV of the Disposition document identified as Attachment A. The Mitigating Actions, Remedies and Sanctions are discussed in detail in the Disposition document (Attachments A).
11. In addition to the mitigating actions listed in Attachment A, MPC has taken or agreed to take above and beyond actions, which SERC considered a mitigating factor when determining the penalty.

MPC shall increase the inspection frequency for no-fly zone ROWs from annually to quarterly, which will allow it to better monitor fast-growing species of vegetation on the ROWs and target corrective action to minimize the likelihood of encroachment. MPC estimates it will spend \$21,352 annually to implement this quarterly review.

MPC shall provide SERC with evidence of the quarterly inspections of no-fly zones within 30 days of completing the inspections for those completed during the second and third quarters in 2016.

[REDACTED]

The increased inspection frequency for no-fly zones will be included as an internal control activity in Southern Company Services (SCS) Operations Compliance's compliance monitoring and testing (CMAT) program. In this manner, MPC management will perform quarterly monitoring of the control activity and report the results to SCS Operations Compliance. SCS Operations Compliance will conduct independent annual testing of the control activity to ensure design and operating effectiveness. SCS Operations Compliance will retain and track the results of CMAT testing in an internal control management application, including any deficiencies found in the control activity and corrective action plans developed to address the deficiencies. SCS Operations Compliance will work with MPC to develop any corrective action plans. SCS Operations Compliance will report any deficiencies identified in the control activity to MPC management and SCS management.

12. SERC staff also considered the specific facts and circumstances of the violation and MPC's actions in response to the violation in determining a proposed penalty that meets the requirement in Section 215 of the Federal Power Act that "[a]ny penalty imposed under this section shall bear a reasonable relation to the seriousness of the violation and shall take into consideration the efforts of an entity to remedy the violation in a timely manner."¹ The factors considered by SERC staff in the determination of the appropriate penalty are set forth in Section V of the Disposition document.
13. Based on the above factors, as well as the mitigation actions and preventative measures taken, MPC shall pay \$40,000 to SERC as set forth in this Settlement Agreement. MPC shall remit the payment to SERC via check, or by wire transfer to an account to be identified by SERC within thirty days after the Agreement is either approved by the Federal Energy Regulatory Commission (Commission) or by operation of law. SERC shall notify NERC, and NERC shall notify the Commission, if the payment is not timely received. If MPC does not remit the payment by the required date, interest payable to SERC will begin to accrue pursuant to the Commission's regulations at 18 C.F.R. §35.19a(a)(2)(iii) from the date that payment is due, and shall be payable in addition to the payment.
14. Failure to make a timely penalty payment or to comply with any of the terms and conditions agreed to herein, or any other conditions of this Settlement Agreement shall be deemed to be either the same alleged violations that initiated this Settlement Agreement and/or additional violations and may subject MPC to new or additional enforcement, penalty or sanction actions in accordance with the NERC Rules of Procedure. MPC shall retain all rights to defend against such additional enforcement actions in accordance with NERC Rules of Procedure.

¹ 16 U.S.C. § 824o(e)(6).

[REDACTED]

V. ADDITIONAL TERMS

15. The signatories to the Settlement Agreement agree that they enter into the Settlement Agreement voluntarily and that, other than the recitations set forth herein, no tender, offer or promise of any kind by any member, employee, officer, director, agent or representative of SERC or MPC has been made to induce the signatories or any other party to enter into the Settlement Agreement. The signatories agree that the terms and conditions of this Settlement Agreement are consistent with the Commission's regulations and orders, and NERC's Rules of Procedure.
16. SERC shall report the terms of all settlements of compliance matters to NERC. NERC will review the settlement for the purpose of evaluating its consistency with other settlements entered into for similar violations or under other, similar circumstances. Based on this review, NERC will either approve the settlement or reject the settlement and notify SERC and MPC of changes to the settlement that would result in approval. If NERC rejects the settlement, NERC will provide specific written reasons for such rejection and SERC will attempt to negotiate a revised settlement agreement with MPC including any changes to the settlement specified by NERC. If a settlement cannot be reached, the enforcement process shall continue to conclusion. If NERC approves the settlement, NERC will (i) report the approved settlement to the Commission for the Commission's review and approval by order or operation of law and (ii) publicly post this Settlement Agreement.
17. This Settlement Agreement shall become effective upon the Commission's approval of the Settlement Agreement by order or operation of law as submitted to it or as modified in a manner acceptable to the parties.
18. MPC agrees that this Settlement Agreement, when approved by NERC and the Commission, shall represent a final settlement of all matters set forth herein and MPC waives its right to further hearings and appeal, unless and only to the extent that MPC contends that any NERC or Commission action on the Settlement Agreement contains one or more material modifications to the Settlement Agreement. SERC reserves all rights to initiate enforcement, penalty or sanction actions against MPC in accordance with the NERC Rules of Procedure in the event that MPC does not comply with the Mitigation Plans and compliance program agreed to in this Settlement Agreement. In the event MPC 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 MPC to the maximum extent allowed by the NERC Rules of Procedure, up to the maximum statutorily allowed penalty. Except as otherwise specified in this Settlement Agreement, MPC shall retain all rights to defend against such enforcement actions, also according to the NERC Rules of Procedure.
19. MPC consents to the use of SERC's determinations, findings, and conclusions set forth in this Settlement Agreement for the purpose of assessing the factors, including the factor of determining the company's history of violations, in accordance with the

[REDACTED]

NERC Sanction Guidelines and applicable Commission orders and policy statements. Such use may be in any enforcement action or compliance proceeding undertaken by NERC and/or any Regional Entity; provided, however, that MPC does not consent to the use of the specific acts set forth in this Settlement Agreement as the sole basis for any other action or proceeding brought by NERC and/or SERC, nor does MPC consent to the use of this Settlement Agreement by any other party in any other action or proceeding.

20. 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.
21. 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, provided, however, that such affirmation by each party's representative shall not apply to the other party's statements of position set forth in Section III of this Settlement Agreement.
22. The Settlement Agreement may be signed in counterparts.
23. This Settlement Agreement is executed in duplicate, each of which so executed shall be deemed to be an original.

***Remainder of page intentionally blank.
Signatures to be affixed to the following page.***

[REDACTED]

Agreed to and accepted:



R. Scott Henry
President and Chief Executive Officer
SERC RELIABILITY CORPORATION

3/16/2016
Date



Nicole A. Faulk
Vice President Customer Services
MISSISSIPPI POWER COMPANY

3/14/2016
Date

DISPOSITION OF VIOLATION¹**Dated March 16, 2016**NERC TRACKING NO.
SERC2015015011SERC TRACKING NO.
SERC2015-402221NOC#
NOC-2477REGISTERED ENTITY
Mississippi Power Company (MPC)NERC REGISTRY ID
NCR01273REGIONAL ENTITY
SERC Reliability Corporation (SERC)**I. REGISTRATION INFORMATION**ENTITY IS REGISTERED FOR THE FOLLOWING FUNCTIONS IN THE SERC
REGION (BOTTOM ROW INDICATES REGISTRATION DATE):

BA	DP	GO	GOP	PA	RC	RP	RSG	TO	TOP	TP	TSP
	X	X						X			
	5/31/07	5/31/07						5/31/07			

* VIOLATION(S) APPLIES TO SHADED FUNCTIONS

DESCRIPTION OF THE REGISTERED ENTITY

MPC is an investor-owned, retail electric service company whose common stock is owned by Atlanta-based Southern Company. MPC has a total generation capacity of 2,703 MW. MPC has a total of 1,940 miles of transmission line ranging from 115kV to 500kV and 14 interconnections with various entities on the Bulk Electric System (BES).

IS THERE A SETTLEMENT AGREEMENT YES ☒ NO ☐

WITH RESPECT TO THE VIOLATION(S), REGISTERED ENTITY

NEITHER ADMITS NOR DENIES IT (SETTLEMENT ONLY) YES ☐
 ADMITS TO IT YES ☒
 DOES NOT CONTEST IT (INCLUDING WITHIN 30 DAYS) YES ☐

¹ For purposes of this document and attachments hereto, each violation at issue is described as a "violation," regardless of its procedural posture and whether it was a possible, alleged or confirmed violation.

WITH RESPECT TO THE ASSESSED PENALTY OR SANCTION, REGISTERED ENTITY

ACCEPTS IT/ DOES NOT CONTEST IT

YES ☒

II. VIOLATION INFORMATION

RELIABILITY STANDARD	REQUIREMENT(S)	SUB-REQUIREMENT(S)	VRF(S)	VSL(S)
FAC-003-3	R2		High	High²

PURPOSE OF THE RELIABILITY STANDARD AND TEXT OF RELIABILITY STANDARD AND REQUIREMENT(S)/SUB-REQUIREMENT(S)

The purpose statement of FAC-003-3 provides:

To maintain a reliable electric transmission system by using a defense-in-depth strategy to manage vegetation located on transmission rights of way (ROW) and minimize encroachments from vegetation located adjacent to the ROW, thus preventing the risk of those vegetation-related outages that could lead to Cascading.

FAC-003-3 R2 provides, in pertinent part:

R2. Each applicable Transmission Owner and applicable Generator Owner shall manage vegetation to prevent encroachments into the minimum vegetation clearance distance (MVCD) of its applicable line(s) which are not either an element of an IROL, or an element of a Major WECC Transfer Path; operating within its Rating and all Rated Electrical Operating Conditions of the types shown below⁹ [*Violation Risk Factor: High*] [*Time Horizon: Real-time*]:

1. An encroachment into the MVCD, observed in Real-time, absent a Sustained Outage,¹⁰
2. An encroachment due to a fall-in from inside the ROW that caused a vegetation-related Sustained Outage,¹¹
3. An encroachment due to blowing together of applicable lines and vegetation located inside the ROW that caused a vegetation-related Sustained Outage,¹²
4. An encroachment due to vegetation growth into the line MVCD that caused a vegetation-related Sustained Outage¹³

...

Footnote 5: If a later confirmation of a Fault by the applicable Transmission Owner or applicable Generator Owner shows that a vegetation encroachment within the MVCD has occurred from vegetation within the ROW, this shall be considered the equivalent of a Real-time observation.

...

Footnote 10: See footnote 5.

² SERC assessed a Violation Severity Level (VSL) of “High” in accordance with the VSL Matrix in FAC-003-3 because MPC failed to manage vegetation to prevent encroachment into the MVCD of a line not identified as an element of an IROL or Major WECC transfer path and encroachment into the MVCD as identified in FAC-003-Table 2 was observed in real time absent a Sustained Outage.

...

VIOLATION DESCRIPTION

On June 19, 2015, MPC submitted a Self-Report stating that, as a Transmission Owner, it was in violation of FAC-003-3 R2. A tree had encroached the minimum vegetation clearance distance (MVCD) of a 230 kV transmission line, which caused the non-sustained outage of the line.

On June 4, 2015 at 11:29:31 a.m., protective relaying tripped MPC's Moss Point East-Plant Daniel 230 kV transmission line, resulting in the loss of 16 MVA of load at the Moss Point – Elder Ferry load bus. Automatic reclosers successfully reenergized the Moss Point East end of the line and the load bus 0.809 seconds later. Automatic reclosers reenergized the Plant Daniel end of the line 14.8 seconds later, thereby restoring the network.

On the same day, MPC dispatched a line crew to investigate, which identified a Chinese tallow tree in the Right-of-Way (ROW), located in the backyard of a residential neighborhood and inside of a chain link fence and surrounded by junk cars, as the possible cause of the outage. The line crew determined that the highest point of the tree crown had evidence of flash-over from the line. Therefore, pursuant to FAC-003-3 footnote 5, MPC observed the tree to have encroached the MVCD in Real-time.

MPC measured the tree and found it was 31 feet and 11 inches tall. The tree was located directly under the conductor, which was 33 feet above the ground. Pursuant to FAC-003-3 Table 2, the line's MVCD was 3.03 feet (4.04 feet under the proposed changes to the gap factor in the Gallet equation) and therefore the distance of one foot and one inch between the tree and the conductor breached the MVCD. Because of the successful recloser operation, MPC determined the outage was not a Sustained Outage that required reporting to SERC as part of the FAC-003-3 quarterly periodic data submittal. MPC removed the tree on June 4, 2015, the same day as the outage.

SERC determined that MPC was in violation of FAC-003-3 R2 because MPC failed to manage vegetation to prevent encroachment into the MVCD of a line, which was not an element of an Interconnection Reliability Operating Limit (IROL). MPC observed the encroachment into the MVCD in Real-time and absent a Sustained Outage.

RELIABILITY IMPACT STATEMENT- POTENTIAL AND ACTUAL

This violation posed a moderate risk and did not pose a serious or substantial risk to the reliability of the bulk power system. MPC's failure to properly manage vegetation along a transmission ROW resulted in vegetation encroaching a line's MVCD and the loss of 16 MVA of load at a load bus for 0.809 seconds. The risk of the violation was enhanced by the presence of a fast-growing tree species in the ROW and the MPC personnel's failure to identify the tree as an encroachment risk during an annual inspection of the line by ground patrol in April 2015, two months prior to this incident. The transmission line was located in a fenced residential area that was also a no-fly zone, making a ground patrol the only means of inspecting the line. However, the risk of the violation was reduced by MPC's vegetation management program, which requires annual inspections

for possible encroachments of the MVCD on all overhead transmission lines operated at 200 kV or higher. In addition, MPC took regular preventative measures to control vegetation growth within the ROWs of its transmission lines. MPC has had no Sustained Outages resulting from contact with vegetation in its ROWs. Finally, MPC performed annual system planning studies of its transmission system consistent with the Transmission Operations and Transmission Planning Standards. These studies considered multiple contingency scenarios, and MPC was prepared to mitigate any potential overload or instability on its system resulting from the loss of the line in question.

III. DISCOVERY INFORMATION

METHOD OF DISCOVERY

SELF-REPORT	<input checked="" type="checkbox"/>
SELF-CERTIFICATION	<input type="checkbox"/>
COMPLIANCE AUDIT	<input type="checkbox"/>
COMPLIANCE VIOLATION INVESTIGATION	<input type="checkbox"/>
SPOT CHECK	<input type="checkbox"/>
COMPLAINT	<input type="checkbox"/>
PERIODIC DATA SUBMITTAL	<input type="checkbox"/>
EXCEPTION REPORTING	<input type="checkbox"/>

DURATION DATE(S)

6/4/2015 (when MPC observed the encroachment) until 6/4/2015 (when MPC removed the tree)

DATE DISCOVERED BY OR REPORTED TO REGIONAL ENTITY 6/19/2015

IS THE VIOLATION STILL OCCURRING	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>
IF YES, EXPLAIN				
REMEDIAL ACTION DIRECTIVE ISSUED	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>
PRE TO POST JUNE 18, 2007 VIOLATION	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>

IV. MITIGATION INFORMATION

FOR FINAL ACCEPTED MITIGATION PLAN:

MITIGATION PLAN NO.	SERCMIT011845
DATE SUBMITTED TO REGIONAL ENTITY	7/10/2015
DATE ACCEPTED BY REGIONAL ENTITY	7/27/2015
DATE APPROVED BY NERC	12/16/2015
DATE PROVIDED TO FERC	12/17/2015

IDENTIFY AND EXPLAIN ALL PRIOR VERSIONS THAT WERE ACCEPTED OR REJECTED, IF APPLICABLE

MITIGATION PLAN COMPLETED YES ☒ NO ☐

EXPECTED COMPLETION DATE	7/31/2015
EXTENSIONS GRANTED	N/A
ACTUAL COMPLETION DATE	7/20/2015
DATE OF CERTIFICATION LETTER	7/29/2015
CERTIFIED COMPLETE BY REGISTERED ENTITY AS OF	7/20/2015
VERIFIED COMPLETE BY REGIONAL ENTITY ON	11/20/2015

ACTIONS TAKEN TO MITIGATE THE ISSUE AND PREVENT RECURRENCE

To mitigate this violation, MPC:

1. Removed the tree that encroached into the MVCD and caused the momentary outage on the Moss Point East-Plant Daniel 230kV transmission line;
2. Completed a ground patrol re-inspection of the Moss Point East-Plant Daniel 230kV ROW between Moss Point East and Moss Point Elder Ferry substations;
3. Removed additional vegetation as necessary on the re-inspected portion of the Moss Point East-Plant Daniel 230kV ROW
4. Inspected via ground patrol all ROWs in no-fly zones that contain transmission lines operated above 200kV;
5. Inspected via air or ground patrol all other ROWs that contain transmission lines operated above 200kV;
6. Developed a procedure documenting enhanced specifications for annual ROW inspections in areas that cannot be adequately inspected using aerial methods; and
7. Conducted a human performance learning event review and reported the results to MPC management.

In addition to the mitigation steps described above, MPC has completed the following additional actions to help prevent recurrence:

1. Created a mobile application for use by vegetation management contract personnel to document inspections and findings in no-fly zones;
2. Created a training video to augment ROW inspections; and
3. Purchased a range finder for use in ROW inspections.

LIST OF EVIDENCE REVIEWED BY REGIONAL ENTITY TO EVALUATE COMPLETION OF MITIGATION PLAN (FOR CASES IN WHICH MITIGATION IS NOT YET COMPLETED, LIST EVIDENCE REVIEWED FOR COMPLETED MILESTONES)

SERC reviewed the following evidence submitted by MPC to evaluate completion of its Mitigation Plan:

1. A ground patrol database entry ordering the cutting of a “popcorn” tree along the Moss Point-East – Plant Daniel line;
2. A ground patrol database entry ordering the re-inspection of the line;

3. A ground patrol database entry ordering the removal of brush and trimming of a live oak along the ROW;
4. Two reports ordering the aerial or ground patrol inspection of the applicable transmission lines on all other ROWs that contain transmission lines operated above 200 kV;
5. A procedure addressing enhanced specification for annual ROW inspections in areas that cannot be adequately inspected using aerial methods;
6. An email showing the transmission lines manager distributed the updated procedure to personnel responsible for ROW vegetation management;
7. An email showing the transmission lines manager distributed the updated procedure to personnel responsible for aerial ROW inspections;
8. A lessons learned report on the momentary outage; and
9. An email showing the transmission lines manager communicated the lessons learned report to the transmission general manager.

V. PENALTY INFORMATION

TOTAL ASSESSED PENALTY OR SANCTION OF FORTY THOUSAND DOLLARS (\$40,000) FOR ONE VIOLATION OF RELIABILITY STANDARDS.

In addition to paying the monetary penalty, MPC agreed to take above and beyond actions, which SERC considered a mitigating factor when determining the penalty.

MPC shall increase the inspection frequency for no-fly zone ROWs from annually to quarterly, which will allow it to better monitor fast-growing species of vegetation on the ROWs and target corrective action to minimize the likelihood of encroachment. MPC estimates it will spend \$21,352 annually to implement this quarterly review.

MPC shall provide SERC with evidence of the quarterly inspections of no-fly zones within 30 days of completing the inspections for those completed during the second and third quarters in 2016.

The increased inspection frequency for no-fly zones will be included as an internal control activity in Southern Company Services (SCS) Operations Compliance's compliance monitoring and testing (CMAT) program. In this manner, MPC management will perform quarterly monitoring of the control activity and report the results to SCS Operations Compliance. SCS Operations Compliance will conduct independent annual testing of the control activity to ensure design and operating effectiveness. SCS Operations Compliance will retain and track the results of CMAT testing in an internal control management application, including any deficiencies found in the control activity and corrective action plans developed to address the deficiencies. SCS Operations Compliance will work with MPC to develop any corrective action plans. SCS Operations Compliance will report any deficiencies identified in the control activity to MPC management and SCS management.

(1) REGISTERED ENTITY'S COMPLIANCE HISTORY

PREVIOUSLY FILED VIOLATIONS OF ANY OF THE INSTANT
RELIABILITY STANDARD(S) OR REQUIREMENT(S) THEREUNDER IN
THE SERC REGION

YES ☒ NO ☐

LIST VIOLATIONS AND STATUS

SERC considered MPC and its affiliates' compliance history in determining the penalty. SERC determined that MPC had no relevant instances of noncompliance. MPC's affiliates, Alabama Power Company (APC) and Georgia Power Company (GPC) had relevant prior noncompliance with FAC-003-1 R2 that includes: NERC Violation IDs SERC200700088, SERC200800150, and SERC2011008763.³ SERC determined that APC and GPC's compliance history should not serve as a basis for aggravating the penalty because SERC verified that APC and GPC completed all mitigating activities for the prior violations more than three years before the start of the instant MPC violation.

ADDITIONAL COMMENTS

Not applicable.

PREVIOUSLY FILED VIOLATIONS OF OTHER RELIABILITY
STANDARD(S) OR REQUIREMENTS THEREUNDER IN THE SERC
REGION

YES ☒ NO ☐

LIST VIOLATIONS AND STATUS

MPC had previously filed violations of other NERC Reliability Standards and Requirements in the SERC Region.

A Settlement Agreement covering a violation of PRC-005-1 R2 was filed with FERC under NP10-33-000 on December 30, 2009.⁴ On March 15, 2010, FERC issued an order stating that it would not engage in further review of the Notice of Penalty.

A Settlement Agreement covering a violation of PRC-023-1 R1 was filed with FERC under NP12-27-000 on May 30, 2012.⁵ On June 29, 2012, FERC issued an order stating that it would not engage in further review of the Notice of Penalty.

³ FERC Docket numbers NP09-37-000 (APC, September 25, 2009), NP09-40-000 (GPC, September 25, 2009) and NP12-44-000 (GPC, August 31, 2012), respectively.

⁴ NERC Violation ID SERC200800236.

⁵ NERC Violation ID SERC2011007159.

A Settlement Agreement covering a violation of PRC-005-1b R2 was filed with FERC under NP14-14-000 on December 30, 2013.⁶ On January 29, 2014, FERC issued an order stating that it would not engage in further review of the Notice of Penalty.

SERC determined that MPC's prior compliance history should not serve as a basis for aggravating the penalty because the prior violations are unrelated to the FAC-003-3 R2 violation at issue in this enforcement action.

In addition to the APC and GPC FAC-003 R2 violations discussed above, MPC's affiliates have other previously filed violations of other NERC Reliability Standards and Requirements in the SERC region.⁷ SERC determined that MPC's affiliates' prior compliance history should not serve as a basis for aggravating the penalty because the prior violations are unrelated to the FAC-003-3 R2 violation at issue in this enforcement action.

ADDITIONAL COMMENTS

Not applicable.

(2) THE DEGREE AND QUALITY OF COOPERATION BY THE REGISTERED ENTITY (IF THE RESPONSE TO FULL COOPERATION IS "NO," THE ABBREVIATED NOP FORM MAY NOT BE USED.)

FULL COOPERATION YES ☒ NO ☐
IF NO, EXPLAIN

(3) THE PRESENCE AND QUALITY OF THE REGISTERED ENTITY'S COMPLIANCE PROGRAM

IS THERE A DOCUMENTED COMPLIANCE PROGRAM
YES ☒ NO ☐
EXPLAIN

⁶ NERC Violation ID SERC2013012373.

⁷ FERC Docket numbers for previously filed violations, excluding the one APC and two GPC FAC-003 R2 violations discussed above:

- a) Alabama Power Company: NP10-34-000 (December 30, 2009), NP11-169-000 (April 29, 2011), NP12-27-000 (May 30, 2012), and NP13-33-000 (April 30, 2013).
- b) Georgia Power Company: NP11-20-000 (November 5, 2010), NP12-27-000 (May 30, 2012), and NP14-35-000 (March 31, 2014).
- c) Gulf Power Company: NP10-32-000 (December 30, 2009) and RC13-1-000 (October 31, 2012).
- d) Southern Company Services, Inc. – Gen.: NP12-27-000 (May 30, 2012) and NP13-27-000 (February 28, 2013).
- e) Southern Company Services, Inc. – Trans: NP15-7-000 (October 30, 2014) and FFT publicly posted (August 31, 2015).
- f) Southern Power Company: NP10-35-000 (December 30, 2009) and NP12-27-000 (May 31, 2012).

MPC is a retail operating company under its parent holding company, Southern Company. MPC follows Southern Company's compliance framework manual, which has been in place since January 8, 2001. Details of the internal compliance program (ICP) are available internally through the intra-company website. Compliance-related information is regularly communicated through various means including email, newsletters, web-based, and/or classroom training sessions. The ICP is approved by the Southern Company ethics and compliance council, which consists of the compliance officers from each Southern Company operating company and major affiliates and the Southern Company compliance officer.

EXPLAIN SENIOR MANAGEMENT'S ROLE AND INVOLVEMENT WITH RESPECT TO THE REGISTERED ENTITY'S COMPLIANCE PROGRAM, INCLUDING WHETHER SENIOR MANAGEMENT TAKES ACTIONS THAT SUPPORT THE COMPLIANCE PROGRAM, SUCH AS TRAINING, COMPLIANCE AS A FACTOR IN EMPLOYEE EVALUATIONS, OR OTHERWISE.

MPC has a compliance officer, who reports directly to the chief executive officer of MPC as well as to the chairman of the compliance and controls committee of the MPC board of directors. Southern Company's ICP is fully supported by company officers and senior management. Southern Company's ICP is regularly reviewed by senior management and is subject to internal audit. The individual performance of employees is evaluated on a regular basis. These evaluations include an assessment of how the employee complied with laws, regulations and company policies.

(4) ANY ATTEMPT BY THE REGISTERED ENTITY TO CONCEAL THE VIOLATION(S) OR INFORMATION NEEDED TO REVIEW, EVALUATE OR INVESTIGATE THE VIOLATION.

YES ☐ NO ☒
IF YES, EXPLAIN

(5) ANY EVIDENCE THE VIOLATION(S) WERE INTENTIONAL (IF THE RESPONSE IS "YES," THE ABBREVIATED NOP FORM MAY NOT BE USED.)

YES ☐ NO ☒
IF YES, EXPLAIN

(6) ANY OTHER MITIGATING FACTORS FOR CONSIDERATION

YES ☐ NO ☒
IF YES, EXPLAIN

(7) ANY OTHER AGGRAVATING FACTORS FOR CONSIDERATION

YES ☐ NO ☒
IF YES, EXPLAIN

(8) ANY OTHER EXTENUATING CIRCUMSTANCES

YES ☐ NO ☒
IF YES, EXPLAIN

OTHER RELEVANT INFORMATION:

NOTICE OF ALLEGED VIOLATION AND PROPOSED PENALTY OR
SANCTION ISSUED

DATE: OR N/A ☒

SETTLEMENT DISCUSSIONS COMMENCED

DATE: February 9, 2016 OR N/A ☐

NOTICE OF CONFIRMED VIOLATION ISSUED

DATE: OR N/A ☒

SUPPLEMENTAL RECORD INFORMATION

DATE(S) OR N/A ☒

REGISTERED ENTITY RESPONSE CONTESTED

FINDINGS ☐ PENALTY ☐ BOTH ☐ NO CONTEST ☒

HEARING REQUESTED

YES ☐ NO ☒

DATE

OUTCOME

APPEAL REQUESTED

EXHIBITS:

SOURCE DOCUMENT

MPC Self-Report dated June 19, 2015

MITIGATION PLAN

MPC Mitigation Plan submitted on July 10, 2015

CERTIFICATION BY REGISTERED ENTITY

MPC Certification of Completed Mitigation Plan dated July 29, 2015


VERIFICATION BY REGIONAL ENTITY

This Disposition document serves as SERC's Verification of Mitigation Plan Completion.

Attachment B

**MPC's Self-Report for FAC-003-3 R2 dated
June 19, 2015**

 This item was submitted by Mark Pratt (mapratt@southernco.com) on 6/19/2015

 Please note that the circumstances under which an Entity would submit a Scope Expansion form are different from what would require a new Self-Report. Please review the material in [this link](#) to see clarifying information and examples of these differences before continuing with this form.

FORM INFORMATION

Registered Entity: Mississippi Power Company

NERC Registry ID: NCR01273

JRO ID:

CFR ID:

Entity Contact Information: Mark Pratt

REPORTING INFORMATION

Applicable Standard: FAC-003-3

Applicable Requirement: R2.

Applicable Sub Requirement(s):

Applicable Functions: TO

Has a Possible violation of this standard and requirement previously been reported or discovered: No

Has this Possible Violation previously been reported to other Regions: No

Date Possible Violation was discovered: 6/4/2015

Beginning Date of Possible Violation: 6/4/2015

End or Expected End Date of Possible Violation: 6/4/2015

Is the violation still occurring? No

Provide detailed description and cause of Possible Violation:

[Refer to the Background Information provided in the "Additional Comments" section of this self-report.]

On June 4, 2015 following a momentary operation on the Moss Point East-Plant Daniel 230kV transmission line, line crews identified a tree on the ROW with indication of burns. The tree in question was a Chinese Tallow located in the backyard of a residential neighborhood, inside of a chain link fence and surrounded by junk cars. The Chinese Tallow is characterized by the United States Department of Agriculture (USDA) as a fast-growing, invasive plant species that is common in the Gulf States and is reported to reach heights of up to 50 feet. A reference guide used by Forestry Specialists in MPC, "Manual of Woody Landscape Plants" by Michael Dirr indicates a growth rate for the Chinese Tallow of 2 to 3 feet or more in a year. The tree in question measured 31'-11" tall. Post-incident analysis of LiDar data collected in April 2013 shows the tree was approximately 20 feet tall at the time of LiDar data collection. Thus the tree has grown in excess of 10 feet during that period – a rate of growth that is at the high end, if not greater than, the growth rate anticipated for this species.

Investigation revealed that the most recent (April 2015) inspection of the ROW was performed from the street located at the front of the house approximately 150 feet from the ROW. Inspection from this vantage was chosen by the Forestry Specialist due to the difficulty accessing the ROW and historical resistance by residential homeowners in the area. From the street, it appeared to the Forestry Specialist that there was approximately 10 feet of clearance between the lowest transmission conductor and the top of the nearest tree (Note: the MVCD for this line is 4.04 feet). However, post-event analysis concluded that the Forestry Specialist misidentified the lowest phase of the bundled conductor associated with the 230kV line as belonging to a distribution circuit that shares this ROW (perhaps due to the absence of spacers between the 230kV bundled conductors), thus failing to accurately estimate the actual clearance distance between the 230kV conductor and the Chinese Tallow.

A review of operating data indicates the Moss Point East-Plant Daniel 230kV transmission line was operating within its Facility Rating and all Rated Electrical Operating Conditions at the time of the fault.

The root cause of the encroachment into the MVCD on the Wade-to-Plant Daniel-Moss Point East ROW is a combination of an inadequate inspection of that portion of the ROW (due to misidentification of the 230kV conductors and ROW access difficulty) coincident with the presence of a fast-growing and invasive plant species.

Are Mitigating Activities in progress or completed? Yes

If Yes, Provide description of Mitigating Activities:

The following Mitigating Actions have been completed:

1. Re-inspect the Moss Point East-Plant Daniel 230kV ROW between Moss Point East and Moss Point Elder Ferry substations (ground patrol).

Additional Mitigating Activities are being developed, and details on these activities will be provided in the Mitigation Plan.

Provide details to prevent recurrence:

Mitigating Activities to prevent reoccurrence are being developed, and details on these activities will be provided in the Mitigation Plan.

Date Mitigating Activities (including activities to prevent recurrence) are expected to be completed or were completed:

7/31/2015

Potential Impact to the Bulk Power System: Minimal

Actual Impact to the Bulk Power System: Minimal

Provide detailed description of Potential Risk to Bulk Power System:

[Refer to the Background Information provided in the "Additional Comments" section of this self-report.]

The possible violation for failing to manage vegetation to prevent encroachments into the MVCD of the Moss Point East-Plant Daniel 230kV transmission line had minimal potential impact on the BES based on the following facts and circumstances:

1. Effective operational planning minimizes the magnitude of impact to the BES for single contingencies:
The Transmission System is planned for N-1 contingencies, so the potential loss of any transmission line is factored into normal operational planning models and contingencies. Therefore System Operators were prepared to take actions to effectively mitigate the adverse impacts to the BES due to the loss of the Moss Point East-Plant Daniel 230kV transmission line, even though no sustained outage occurred.
2. Effective vegetation management practices minimize the likelihood of grow-ins:
ROWs designated as "No Fly Zones" in MPC territory comprise only 2% (16 miles) of all transmission circuits > 200kV, and the MPC vegetation management program factors in ground patrols for these ROWs. Only a small percentage of "No Fly Zone" ROWs are associated with additional inspection difficulties related to access. Therefore, the likelihood of similar grow-ins occurring is very small.

Provide detailed description of Actual Risk to Bulk Power System:

The possible violation for failing to manage vegetation to prevent encroachments into the MVCD of the Moss Point East-Plant Daniel 230kV transmission line had minimal actual impact on the BES based on the following facts and circumstances:

1. The Transmission protection schemes operated as designed – breakers at both ends of the 230kV transmission line tripped and reclosed on a single automatic momentary operation
2. There was no outage or interruption to any BES load when the momentary operation occurred
3. At the time of the event, the system was in a state with no single contingency, and no thermal or voltage violations (N-1 operational planning)

Additional Comments:

Background Information

Since 2007, MPC has followed a vegetation management schedule that includes an annual inspection of all 230kV and 500kV ROWs, bush hogging of all 230kV and 500kV ROWs on a six year cycle, and side-trimming of all vegetation on the edge of ROWs on an eight year cycle. Because the FAA prohibits aircraft from flying below a 1000 foot altitude in residential areas, these are deemed as "No Fly Zones." All of the ROW segments in "No Fly Zones" must be patrolled by ground, and some of the clearing and trimming of vegetation in these areas requires working by hand.

The section of ROW affected by the vegetation contact is in a "No Fly Zone." This portion of the ROW is 80 feet wide and uses single-pole construction. Two circuits are contained within this section of the ROW: the Moss Point East-Plant Daniel 230kV transmission line (bundled conductor circuit) and a three-phase distribution circuit along the west edge of the ROW. Due to the short span lengths in this line segment, there are no spacers installed between the conductors on the Moss Point East-Plant Daniel 230kV transmission line. Also, the Moss Point East-Plant Daniel 230kV line is not an element of an Interconnection Reliability Operating Limit (IROL).

Recent inspections/work involving the Moss Point East-Plant Daniel 230kV transmission line include the following:

1. 2012: Side-trimming crew worked the ROW with no report of threatening vegetation
2. April 2013: LiDar (Laser Imaging, Detection and Ranging) inspection completed on ROW as part of Mississippi Power's response to the FAC-009 NERC Alert: "Consideration of Actual Field Conditions in Determination of Facility Ratings". While the focus of the LiDar inspection was not vegetation, post analysis of this section of the ROW does not indicate any vegetation encroachments into the MVCD.
3. October 2013: Bush-hogging crew worked the ROW with no report of threatening vegetation
4. April 6, 2015: Forestry Specialist performed an annual inspection of the Moss Point East- Plant Daniel 230kV transmission line by ground patrol without identifying any threatening vegetation

NOTE: While submittal of a mitigation plan is not required until after a determination of a violation is confirmed, early submittal of a mitigation plan to address and remedy an identified deficiency is encouraged. Submittal of a mitigation plan shall not be deemed an admission of a violation. (See NERC Rules of Procedure, Appendix 4C, Section 6.4.)

Attachment C

**MPC's Mitigation Plan designated as
SERCMIT011845 submitted July 10, 2015**

VIEW MITIGATION PLAN: FAC-003-3 (REGION REVIEWING MITIGATION PLAN)

 A [previous version](#) of the this Mitigation Plan exists

 This item was signed by Helen Nalley (hralley@southernco.com) on 7/10/2015

 This item was marked ready for signature by Mark Pratt (mapratt@southernco.com) on 7/10/2015

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: Mississippi Power Company

Company Address: 2992 W. Beach Blvd.

Gulfport, Mississippi 39501-1907

Compliance Registry ID: NCR01273

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

Name: Mark Pratt

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: FAC-003-3

Requirement	Regional ID	NERC Violation ID	Date Issue Reported
R2.	SERC2015-402221	SERC2015015011	6/19/2015

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

[Refer to the Background Information provided in Section C.3 of this Mitigation Plan]

On June 4, 2015 following a momentary operation on the Moss Point East-Plant Daniel 230kV transmission line, line crews identified a tree on the ROW with indication of burns. The tree in question was a Chinese Tallow located in the backyard of a residential neighborhood, inside of a chain link fence and surrounded by junk cars. The Chinese Tallow is characterized by the United States Department of Agriculture (USDA) as a fast-growing, invasive plant species that is common in the Gulf States and is reported to reach heights of up to 50 feet. A reference guide used by Forestry Specialists in MPC, "Manual of Woody Landscape Plants" by Michael Dirr indicates a growth rate for the Chinese Tallow of 2 to 3 feet or more in a year. The tree in question measured 31'-11" tall. Post-incident analysis of LiDar data collected in April 2013 shows the tree was approximately 20 feet tall at the time of LiDar data collection. Thus the tree has grown in excess of 10 feet during that period – a rate of growth that is at the high end, if not greater than, the growth rate anticipated for this species.

Investigation revealed that the most recent (April 2015) inspection of the ROW was performed from the street located at the front of the house approximately 150 feet from the ROW. Inspection from this vantage was chosen by the Forestry Specialist due to the difficulty accessing the ROW and historical resistance by residential homeowners in the area. From the street, it appeared to the Forestry Specialist that there was approximately 10 feet of clearance between the lowest transmission conductor and the top of the nearest tree (Note: the MVCD for this line is 4.04 feet). However, post-event analysis concluded that the Forestry Specialist misidentified the lowest phase of the bundled conductor associated with the 230kV line as belonging to a distribution circuit that shares this ROW (perhaps due to the absence of spacers between the 230kV bundled conductors), thus failing to accurately estimate the actual clearance distance between the 230kV conductor and the Chinese Tallow.

A review of operating data indicates the Moss Point East-Plant Daniel 230kV transmission line was operating within its Facility Rating and all Rated Electrical Operating Conditions at the time of the fault.

The root cause of the encroachment into the MVCD on the Wade-to-Plant Daniel-Moss Point East ROW is a combination of an inadequate inspection of that portion of the ROW (due to misidentification of the 230kV conductors and ROW access difficulty) coincident with the presence of a fast-growing and invasive plant species.

[Attachments \(\)](#)

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

Background Information:

Since 2007, MPC has followed a vegetation management schedule that includes an annual inspection of all 230kV and 500kV ROWs, bush hogging of all 230kV and 500kV ROWs on a six year cycle, and side-trimming of all vegetation on the edge of ROWs on an eight year cycle. Because the FAA prohibits aircraft from flying below a 1000 foot altitude in residential areas, these are deemed as "No Fly Zones." All of the ROW segments in "No Fly Zones" must be patrolled by ground, and some of the clearing and trimming of vegetation in these areas requires working by hand.

The section of ROW affected by the vegetation contact is in a "No Fly Zone." This portion of the ROW is 80 feet wide and uses single-pole construction. Two circuits are contained within this section of the ROW: the Moss Point East-Plant Daniel 230kV transmission line (bundled conductor circuit) and a three-phase distribution circuit along the west edge of the ROW. Due to the short span lengths in this line segment, there are no spacers installed between the conductors on the Moss Point East-Plant Daniel 230kV transmission line. Also, the Moss Point East-Plant Daniel 230kV line is not an element of an Interconnection Reliability Operating Limit (IROL).

Recent inspections/work involving the Moss Point East-Plant Daniel 230kV transmission line include the following:

1. 2012: Side-trimming crew worked the ROW with no report of threatening vegetation
2. April 2013: LiDar (Laser Imaging, Detection and Ranging) inspection completed on ROW as part of Mississippi Power's response to the FAC-009 NERC Alert: "Consideration of Actual Field Conditions in Determination of Facility Ratings". While the focus of the LiDar inspection was not vegetation, post analysis of this section of the ROW does not indicate any vegetation encroachments into the MVCD.
3. October 2013: Bush-hogging crew worked the ROW with no report of threatening vegetation
4. April 6, 2015: Forestry Specialist performed an annual inspection of the Moss Point East- Plant Daniel 230kV transmission line by ground patrol without identifying any threatening vegetation

[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:

Mississippi Power will perform the following actions as part of this Mitigation Plan to correct the possible violations identified in Section C:

1. Remove the tree that encroached into the MVCD and caused the momentary line outage
2. Complete a re-inspection of the Moss Point East-Plant Daniel 230kV ROW between Moss Point East and Moss Point Elder Ferry substations (ground patrol)
3. Remove any additional vegetation, as necessary on the re-inspected portion of the Moss Point East-Plant Daniel 230kV ROW
4. Inspect all ROWs in "No Fly Zones" that contain transmission lines > 200kV (ground patrol)
5. Inspect all other ROWs that contain transmission lines > 200kV (air or ground patrol)
6. Enhance specifications for annual ROW inspections in areas that cannot be adequately inspected using aerial methods
7. Conduct Human Performance learning event review and report results to Mississippi Power Company management

[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:

7/31/2015

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

No Milestones Defined

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):

(i) MPC asserts that the reliability of the Bulk Power System does not remain at higher risk and will not be negatively impacted prior to full completion of the action items in this Mitigation Plan. The basis for this assertion is as follows:

1. Mississippi Power Company's operational planning practices include planning for contingencies, so System Operators are always prepared to take actions to effectively mitigate the adverse impacts to the BES resulting from the loss of a transmission line.
2. The factors contributing to this grow-in and transmission line outage limit MPC's vulnerability for similar issues to ROWs designated as "No Fly Zones" (NFZs) with additional ground access restrictions. The NFZs comprise only 2% (16 miles) of all transmission circuits > 200kV in Mississippi Power, and only a small percentage of NFZ ROWs are associated with additional inspection difficulties related to access.

(ii) Therefore, Mississippi Power does not plan or propose to implement any additional interim mitigating actions.

[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):

Successful completion of this Mitigation Plan will minimize the probability that MPC incurs further violations of FAC-003-3 by enhancing specifications for annual ROW inspections, thus ensuring that ground access restrictions to ROWs do not compromise the ability to perform a thorough and accurate inspection of these ROWs for threatening vegetation.

[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 Helen Nalley of Mississippi Power Company
 - I am qualified to sign this Mitigation Plan on behalf of Mississippi Power Company
 - I understand Mississippi Power Company'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
- Mississippi Power Company 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)

Attachment D

MPC's Certification of Mitigation Plan Completion dated July 29, 2015

VIEW MITIGATION PLAN CLOSURE: FAC-003-3 (MITIGATION PLAN CLOSURE COMPLETED)

 This item was signed by Nicole Faulk (ANFAULK@southernco.com) on 7/29/2015



 This item was marked ready for signature by Mark Pratt (mapratt@southernco.com) on 7/29/2015

**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:

Mississippi Power Company

Name of Standard of mitigation violation(s):

FAC-003-3

Requirement	Tracking Number	NERC Violation ID
R2.	SERC2015-402221	SERC2015015011

Date of completion of the Mitigation Plan:

7/20/2015

No Milestones Defined

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

Mississippi Power performed the following actions to correct the possible violations identified in Section C of the revised Mitigation Plan submitted to SERC on 7/10/2015:

1. Removed the tree that encroached into the MVCD and caused the momentary outage on the Moss Point East-Plant Daniel 230kV transmission line
2. Completed a re-inspection of the Moss Point East-Plant Daniel 230kV ROW between Moss Point East and Moss Point Elder Ferry substations (ground patrol)
3. Removed additional vegetation, as necessary on the re-inspected portion of the Moss Point East-Plant Daniel 230kV ROW
4. Inspected all ROWs in "No Fly Zones" that contain transmission lines > 200kV (ground patrol)
5. Inspected all other ROWs that contain transmission lines > 200kV (air or ground patrol)
6. Developed a procedure documenting enhanced specifications for annual ROW inspections in areas that cannot be adequately inspected using aerial methods
7. Conducted Human Performance learning event review and reported the results to Mississippi Power Company management

Description of the information provided to SERC for their evaluation *

The following information is being provided to SERC as evidence of completion of the mitigating actions identified in Part D of the revised Mitigation Plan submitted to SERC on 7/10/2015:

- Reports from the TVMS (Transmission Vegetation Management System) used to manage and track work completion on ROW maintenance indicating completion of mitigating actions 1 - 5 [Note: One report is provided for each mitigating action and each report is labeled to indicate the applicable mitigating action.]
- MPC Procedure 21-2501, Transmission Line NERC Vegetation Inspections, Rev. 0, dated 7/15/2015, pp. 1-6 addressing enhanced specifications for annual ROW inspections in areas that cannot be adequately inspected using aerial methods
- Email from MPC Transmission Lines Manager to MPC personnel responsible for ROW vegetation management, dated 7/20/2015, transmitting MPC Procedure 21-2501
- Email from MPC Transmission Lines Manager to contract personnel responsible for aerial ROW inspections, dated 7/20/2015, transmitting MPC Procedure 21-2501
- MPC Event Learning Report, dated June 4, 2015
- Email from MPC Transmission Lines Manager to the MPC Transmission General Manager (Steve Craig), dated 7/17/2015, transmitting MPC Event Learning Report [Note: Email includes read receipt information]

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.