

September 25, 2009

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

Re: NERC Notice of Penalty regarding Alabama Power Company, FERC Docket No. NP09-_-000

Dear Ms. Bose:

The North American Electric Reliability Corporation (NERC) hereby provides this Notice of Penalty¹ regarding the Alabama Power Company (Alabama Power), NERC Registry ID NCR01166,² in accordance with the Federal Energy Regulatory Commission's (Commission or FERC) rules, regulations and orders, as well as NERC Rules of Procedure including Appendix 4C (NERC Compliance Monitoring and Enforcement Program (CMEP)).³

This Notice of Penalty is being filed with the Commission because, based on information from SERC Reliability Corporation (SERC), SERC and Alabama Power have entered into a Settlement Agreement in which Alabama Power has agreed to the proposed financial penalty of fifty thousand dollars (\$50,000) to be assessed to Alabama Power, in addition to other actions to promote prospective compliance required under the terms and conditions of the Settlement Agreement, and to resolve all outstanding issues arising from a preliminary and non-public assessment resulting in SERC's determination and findings of the enforceable alleged violation of FAC-003-1 Requirement (R) 2 at issue in this Notice of Penalty. Accordingly, the alleged violation identified as NERC Violation Tracking Identification Number SERC200700088 is being filed in accordance with the NERC Rules of Procedure and the CMEP.

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 (2008). 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).

² SERC Reliability Corporation confirmed that Alabama Power Company was included on the NERC Compliance Registry on May 31, 2007 for Transmission Owner, Load Serving Entity, Generator Owner and Distribution Provider and as a Transmission Owner, was subject to the requirements of NERC Reliability Standard FAC-003-1. ³ See 18 C.F.R § 39.7(c)(2).



Statement of Findings Underlying the Alleged Violations

This Notice of Penalty incorporates the findings and justifications set forth in the Settlement Agreement executed as of October 30, 2008, by and between SERC Reliability Corporation and Alabama Power, which is included as Attachment b. The details and findings and basis for the penalty are set forth in the Settlement Agreement 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 (2007), NERC provides the following summary table identifying the alleged violation of a Reliability Standard resolved by the Settlement Agreement, as discussed in greater detail below.

	Registered		NERC	Reliability	Req.		Total Penalty
Region	Entity	NOC ID	Violation ID	Std.	(R)	VRF	(\$)
SERC	Alabama Power Company	NOC-123	SERC200700088	FAC-003-1	2	High	50,000

The purpose of Reliability Standard FAC-003-1 is to improve the reliability of the electric transmission systems by preventing outages from vegetation located on transmission rights-of-way (ROW) and minimizing outages from vegetation located adjacent to ROW, maintaining clearances between transmission lines and vegetation on and along the transmission ROW, and reporting vegetation related outages of the transmission systems to the respective Regional Entities and NERC.

FAC-003-1 R2 requires an entity such as the Alabama Power to create and implement an annual plan for vegetation management work (Transmission Vegetation Management Plan or TVMP) to ensure the reliability of the system. The plan shall describe the methods used, such as manual clearing, mechanical clearing, herbicide treatment, or other actions. The plan should be flexible enough to adjust to changing conditions, taking into consideration anticipated growth of vegetation and all other environmental factors that may have an impact on the reliability of the transmission systems. Adjustments to the plan shall be documented as they occur. The plan should take into consideration the time required to obtain permissions or permits from landowners or regulatory authorities. The entity shall have systems and procedures for documenting and tracking the planned vegetation management work and ensuring that the vegetation management work was completed according to work specifications. FAC-003-1 R2 has a "High" Violation Risk Factor (VRF).

According to the Settlement Agreement, on July 22, 2007, at approximately 10:30 a.m., the Miller-Boyles 230 kV transmission line experienced a nineteen (19) second operation. Alabama Power dispatched personnel to investigate on July 23, 2007. During its review of the event, Alabama Power personnel identified the remains of kudzu⁴ on the middle pole guy wire at structure #167. The kudzu appeared withered and dead and did not pose any threat to continued

⁴ Kudzu is a fast-growing weed that has a non-woody stem and is common in the southeastern United States. Kudzu vines may grow up to 60 feet in a single season and as much as 1 foot during a single day in early summer.

operation of the line. Nonetheless, Alabama Power cut the kudzu plant at the base of the guy wire to prevent the possibility of growth and applied herbicide to the area to eradicate the weed and prevent any future growth. Thereafter, on August 21, 2007, Alabama Power personnel returned to structure #167 to confirm the absence of kudzu in the area. Out of caution, a second herbicide treatment was applied to the ROW to eradicate any kudzu roots or plant that might have remained following the first herbicide treatment on July 23, 2007.

According to the Settlement Agreement, as part of a review of the same July operation event in November 2007, questions arose as to the lateral distance between the guy wire on which the dead kudzu had been identified and the conductor and whether a possible violation occurred of the Clearance 2 distance defined in standard FAC-003-1 R1.2.2. Alabama Power dispatched a survey crew to determine the distance between the conductor, which is attached to the back pole of the structure, and the guy wire, which was attached to the middle pole of the structure. On November 15, 2007, the survey was completed and reported a distance between the conductor and the guy wire of 5.0 feet. The Clearance 2 distance as defined in Alabama Power's TVMP is 5.25 feet. Accordingly, on November 16, 2007, Alabama Power filed a self-report with SERC noting a possible violation of FAC-003-1 R1.2.2.

According to the Settlement Agreement, after confirming Alabama Power's NERC Registration Status, SERC Compliance Enforcement Staff began its detailed compliance assessment. On November 27, 2007, following its receipt and review of Alabama Power's self-report, SERC Staff issued a Compliance Assessment Notice advising Alabama Power of the initiation of a formal assessment to determine its compliance with FAC-003-1. During the course of its assessment, SERC Compliance Enforcement Staff requested, among other things, the following information from Alabama Power: (a) inspection data for the Miller-Boyles 230 kV transmission line; (b) data related to the maintenance history of the Miller-Boyles transmission line; and (c) an electronic copy of its TVMP. SERC Staff reviewed the TVMP and determined that it addressed all forms of vegetation as required by the standard including specific mention of "vines." On December 13, 2007, SERC Compliance Enforcement Staff asked Alabama Power to submit a revised Mitigation Plan further explaining: (1) how the offending vegetation was mitigated; and (2) how similar structures on Alabama Power's transmission system were being reviewed to identify similar vegetation growth. On December 17, 2007, SERC Compliance Enforcement Staff requested that Alabama Power provide documentation of its mitigation activities for the Miller-Boyles transmission line. On February 21, 2008, Alabama Power provided an Addendum to its February 8, 2008 Mitigation Plan containing responses to a short questionnaire sent from SERC Compliance Enforcement Staff to Alabama Power on February 13, 2008 related to its Mitigation Plan.

As a result of its compliance assessment, SERC Compliance Enforcement Staff concluded that the facts and evidence supported a finding that Alabama Power violated FAC-003-1 R2, not R.1.2.2, because evidence showed that vegetation in the form of kudzu was allowed to grow within the established clearance. While SERC Compliance Enforcement Staff determined that Alabama Power has an applicable TVMP, it also identified evidence of a failure in the implementation of the program, which resulted in an encroachment into Clearance 2 space. As a Transmission Owner, Alabama Power was required by FAC-003-1 to specify and maintain Clearance 2 distances between any 200 kV and above transmission lines and any vegetation

surrounding those lines. Alabama Power's TVMP specified a Clearance 2 distance of 5.25 feet for the 230 kV Miller-Boyles transmission. The nineteen second operation on the Miller-Boyles transmission line on July 22, 2007 is evidence of Alabama Power's failure to maintain its specified Clearance 2 distance with respect to the kudzu in conjunction with the unique design of the guy wire. Thus, SERC Compliance Enforcement Staff determined that Alabama Power's TVMP was not carried out in a manner to prevent this contact or flashover with vegetation and thus allegedly violated FAC-003-1 R2.

According to the Settlement Agreement, SERC found that an encroachment of vegetation into Alabama Power's specified Clearance 2 distance of 5.25 feet between the energized, ungrounded conductor and the vegetation within the ROW on its Miller-Boyles 230 kV transmission line near structure #167 occurred on or before July 22, 2007. Alabama Power's failure to maintain its specified clearance was the proximate cause leading to the nineteen second operation on the Miller-Boyles line on July 22, 2007. SERC Compliance Enforcement Staff estimated the duration of the alleged violation to be a single day based on the following factors: (i) because the kudzu that was the probable cause of the flashover had been significantly damaged from the burning caused from the flashover and was burned back to a distance well in excess of 5.25 feet from the conductor, the actual distance between the conductor and the vegetation at the time of the flashover was impossible to determine with reasonable certainty; (ii) the 19-second operation on the Miller-Boyles 230 kV line occurred on July 22, 2007, during the growing season for kudzu when the vine can grow up to 1 foot per day; (iii) the kudzu vine most likely propagated along the guy wire, which was measured to be within 5.0 feet of the conductor, and since Alabama Power's Clearance 2 is 5.25 feet and the Minimum Air Insulation Distances for 230 kV lines from the relevant IEEE standard is 5.14 feet, the encroachment into Clearance 2 was most likely less than one foot, thus less than one day's growth; (iv) the encroachment of the vine into Clearance 2 space that gave rise to the alleged violation ended at the moment the flashover occurred, as the vine was burned back to a distance well outside Clearance 2, and the vine was destroyed by the heat of the flashover such that further growth had ceased; (v) Alabama Power cut the vine back to the ground and applied herbicide to the base of the vine on the day after the flashover, July 23,2007, to further prevent growth into Clearance 2 and patrolled the remainder of its transmission system operated at 200 kV and above and found no other instances of vegetation encroachment into Clearance 2. Therefore, SERC Compliance Enforcement Staff concluded that the duration of the alleged violation began approximately one day before, and ended on, the day of the flashover, July 22, 2007, for a total duration of approximately one day.

According to the Settlement Agreement, SERC Compliance Enforcement Staff considered a number of factors in determining the penalty required for this violation, including: (1) Alabama Power had an internal compliance program that was developed based on Commission guidance and orders; (2) Alabama Power has participated in voluntary compliance programs prior to the effective date of the mandatory and enforceable Reliability Standards; (3) the comprehensive program includes dedicated compliance personnel who are responsible for compliance; (4) Alabama Power self-reported the possible violation; (5) Alabama Power cooperated in every respect with SERC Compliance Enforcement Staff throughout the proceedings and provided timely responses to all of SERC Compliance Enforcement Staff's questions about the details of the violation; (6) there is no prior violation history of this standard or a similar or closely-related

requirement; (7) there is no indication on an attempt by Alabama Power to conceal any information; and (8) there is no indication that the violation was intentional.

According to the Settlement Agreement, SERC Compliance Enforcement Staff concluded that the actual or foreseeable impact of the alleged violation was deemed not to pose a serious or substantial risk to the reliable operation of the bulk power system because the encroachment of vegetation to within Alabama Power's established clearance: (1) was isolated to a single location on Alabama Power's system and a specified section on line with a unique design configuration that contributed to the ability of the kudzu to exceed the Clearance 2 limit; (2) involved exceptionally fast-growing vegetation unlikely to be able to conduct current from a flashover required to cause a sustained outage; and (3) the flashover and nineteen second operation that SERC Compliance Enforcement Staff believes resulted from the isolated encroachment caused no loss of generation or load as, by design, the load the affected line was carrying was redistributed over two other lines that run parallel to it and those lines did not reach any operational limits during that time.

Thus, according to SERC, its Compliance Enforcement Staff determined that, in this instance, the single, aggregate penalty amount of fifty thousand dollars (\$50,000) bears a reasonable relation to the seriousness and duration of the alleged violation and takes into consideration Alabama Power's prompt, voluntary efforts to remedy the alleged violation and complete actions to prevent recurrence of the alleged violation.

Status of Mitigation Plan

Alabama Power's Mitigation Plan dated November 16, 2007 to address the referenced alleged violation was initially submitted to SERC on November 27, 2007 and revised on February 8, 2008, retaining the initial submittal date. On February 21, 2007, at the request of SERC Compliance Enforcement Staff, Alabama Power provided a Supplement to the Mitigation Plan, responding to questions posed by SERC Compliance Enforcement Staff. The revised Mitigation Plan with the supplemental information was accepted by SERC on March 20, 2008 and was approved by NERC on March 26, 2008. The Mitigation Plan for the alleged violation of FAC-003-1 R2 is designated as MIT-07-0464 and was submitted as non-public information to FERC on March 26, 2008 in accordance with FERC orders.

In Section D of the Mitigation Plan, Alabama Power identified and described the action plan, including specific tasks and actions that it undertook to correct the alleged violation. On July 23, 2007, an Alabama Power Vegetation crew and Line Clearing Specialist arrived at site of the flashover and observed a withered and dead kudzu vine on the middle pole guy wire in the vicinity of the conductor. The vine was no longer a threat to the operation of the line but the Alabama Power crew cut the remaining kudzu at the base of the guy wire to prevent further encroachment. Herbicide was applied to the root area of the kudzu to eradicate the weed and the mitigation actions were completed on July 23, 2007.

Section E of the Mitigation Plan, and the Settlement Agreement, set forth additional actions undertaken by Alabama Power to prevent recurrence of a similar violation: (1) on August 21, 2007, a second herbicide treatment was applied to the ROW at the site of the flashover to

eradicate any kudzu roots or plant that might have remained; (2) on December 13, 2007, Alabama Power relocated the anchor on the middle pole guy at structure # 167 to provide at least seven feet of clearance between energized phase and the guy; (3) on May 28, 2008, Alabama Power surveyed all other similar guying configurations on the Miller-Boyles transmission line and relocated the anchor and/or re-framed the entire structure on similar guying configurations to provide at least seven feet of clearance between the energized phase and the guy and thus ensure that the guy is outside of the Clearance 2 distance; and (4) on May 28, 2008, Alabama Power analyzed the design specification records for all of its 230 kV transmission lines to ensure that no other transmission lines were built using the same design test specifications as the Miller-Boyles transmission line.⁵ The actions to prevent recurrence were completed on May 28, 2008.

On March 4, 2008, Alabama Power certified that the Mitigation Plan was completed on July 23, 2007. As discussed above, the alleged violation itself was mitigated as of July 23, 2007 with the removal of the offending vegetation. Other elements of the Mitigation Plan, set forth Section E of the Mitigation Plan and in this Settlement Agreement, were actions to prevent recurrence and improve prospective compliance.

On June 27, 2008, SERC Compliance Enforcement Staff reviewed the evidence discussed below, in a manner similar to a compliance audit, submitted by Alabama Power in support of its certification of completion of the Mitigation Plan and verified that all required actions in the Mitigation Plan have been completed and Alabama Power was in compliance with the Reliability Standard requirement. Alabama Power submitted the following evidence: (1) a photograph of a probable flashover location, dated November 6, 2007, showing a single kudzu vine attached to a down-guy of a pole structure in which the vine appeared to be dead; (2) the contractor's weekly work reports for vegetation control for the week ending July 28, 2007. The reports showed the workers were dispatched to the area where the flashover occurred and treated the vines in the area; (3) Alabama Power Work Order Pl Number 2969105, which showed the completed work order was written to "Reconfigure guying on Str. 167 to increase guy to the conductor clearance;" (4) Alabama Power Project Item Actual Charges Summary for P1 2969105, which is a report that recorded specific changes against the work order to reconfigure guying at structure 167; (5) Alabama Power Work Order P1 Number 2185926, which is a completed work order that was written to reconfigure guying on eight structures of the Miller-Boyles transmission line; and (6) Alabama Power Project Item Actual Charges for P1 summary 2185926, which is a report that recorded specific charges against the work order to reconfigure guying of eight structures of the Miller-Boyles transmission line.

 $^{^{5}}$ Upon Alabama Power's review of design records for the rest of its transmission system, Alabama Power determined there were no other lines with construction similar to the Miller-Boyles line. It was determined that the specific design used for this transmission line was unusual and unique. The Miller-Boyles line had been rebuilt in the 1980's as a cost-saving experiment to upgrade a 161 kV line to a 230 kV line. The structure on the Miller-Boyles line where the flashover occurred is a corner structure of three concrete poles set in soil and guyed with steel guy wires that are isolated from earth ground. The guys are anchored in the landowner's back yard. When the line was reconstructed and upgraded from 115 kV to 230 kV, the engineers used the pre-existing anchors for the guys rather than damage the private property while constructing new anchor points. The resulting design of structure #167 is slightly different than other angle structures on the system.

According to the Settlement Agreement, Alabama Power's total cost to implement the above mentioned actions was \$110,278.71. SERC Compliance Enforcement Staff determined these measures would assist Alabama Power in improving prospective compliance with the requirements of FAC-003-1 and will ultimately enhance the reliability of the bulk power system within an appropriate time frame.

Statement Describing the Proposed Penalty, Sanction or Enforcement Action Imposed

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 Guidance Order,⁶ the NERC BOTCC reviewed the Settlement Agreement and supporting documentation on December 9, 2008. The NERC BOTCC approved the Settlement Agreement, including SERC's imposition of a fifty thousand dollar (\$50,000) penalty against Alabama Power, in addition to other actions to promote prospective 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 alleged violations at issue.

In reaching this determination, NERC BOTCC considered the following factors as described in the Settlement Agreement: (1) Alabama Power had an internal compliance program; (2) Alabama Power has participated in voluntary compliance programs prior to the effective date of the mandatory and enforceable Reliability Standards; (3) the comprehensive program includes dedicated compliance personnel who are responsible for compliance; (4) Alabama Power self-reported the possible violation; (5) Alabama Power cooperated in every respect with SERC Compliance Enforcement Staff throughout the proceedings and provided timely responses to all of SERC Compliance Enforcement Staff's questions about the details of the alleged violation; (6) there is no prior violation history of this standard or a similar or closely-related requirement; (7) there is no indication of an attempt by Alabama Power to conceal any information; and (8) there is no indication that the violation was intentional.

Therefore, NERC approves the Settlement Agreement and believes that the proposed fifty thousand dollars (\$50,000) penalty is appropriate and consistent with NERC's goal to ensure reliability of the bulk power system.

Pursuant to Order No. 693, 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.

⁶ *Guidance on Filing Reliability Notices of Penalty*, 124 FERC ¶ 61,015 (2008).



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 and material:

- a) Alabama Power's Self-report dated November 16, 2007, included as Attachment a;
- b) Settlement Agreement by and between Alabama Power and SERC, included as Attachment b;
- c) Alabama Power's Revised Mitigation Plan designated as MIT-07-0464 submitted February 8, 2008, included in the Settlement Agreement as Appendix A-1;
- d) Alabama Power's Certification of Completion of the Mitigation Plan dated March 4, 2008, included in the Settlement Agreement as Appendix A-2; and
- e) SERC's Verification of Completion of the Mitigation Plan dated June 27, 2008, included in the Settlement Agreement as Appendix A-3.

A Form of Notice Suitable for Publication⁷

A copy of a notice suitable for publication is included in Attachment c.

Notices and Communications

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

Rick Sergel President and Chief Executive Officer David N. Cook* Vice President and General Counsel North American Electric Reliability Corporation 116-390 Village Boulevard Princeton, NJ 08540-5721 (609) 452-8060 (609) 452-9550 – facsimile david.cook@nerc.net

Bobby Kerley* Vice President, Transmission Alabama Power Company 600 North 18th Street Bin 10N-0790 Birmingham, AL 35203 205-257-4066 205-257-2176 – facsimile bjkerley@southernco.com

Ron Parsons* General Manager, Transmission Interconnection & Operations Alabama Power Company 600 North 18th Street Bin 10N-0790 Birmingham, AL 35203 205-257-3333 205-257-3510 – facsimile rgparson@southernco.com

Randy Gann* Contract Services Manager, Power Delivery Contract Services Alabama Power Company 600 North 18th Street Bin 2S-0704 Birmingham, AL 35203 205-257-4026 205-257-6830 – facsimile rfgann@southernco.com

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. Rebecca J. Michael Assistant General Counsel Holly A. Hawkins* Attorney North American Electric Reliability Corporation 1120 G Street, N.W. Suite 990 Washington, D.C. 20005-3801 (202) 393-3998 (202) 393-3955 – facsimile rebecca.michael@nerc.net holly.hawkins@nerc.net

Gerry Cauley President and Chief Executive Officer SERC Reliability Corporation 2815 Coliseum Centre Drive Charlotte, NC 28217 (704) 940-8202 gcauley@serc1.org

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Kenneth B. Keels, Jr.* Manager of Compliance Enforcement SERC Reliability Corporation 2815 Coliseum Centre Drive Charlotte, NC 28217 (704) 940-8214 (704) 357-7914 – facsimile kkeels@serc1.org

Marisa A. Sifontes Compliance Legal Counsel SERC Reliability Corporation 2815 Coliseum Centre Drive, Suite 500 Charlotte, NC 28217 (704) 494-7775 msifontes@serc1.org



Conclusion

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

Respectfully submitted,

Rick Sergel President and Chief Executive Officer David N. Cook Vice President and General Counsel North American Electric Reliability Corporation 116-390 Village Boulevard Princeton, NJ 08540-5721 (609) 452-8060 (609) 452-9550 – facsimile david.cook@nerc.net /s/ <u>Rebecca J. Michael</u> Rebecca J. Michael Assistant General Counsel Holly A. Hawkins Attorney North American Electric Reliability Corporation 1120 G Street, N.W. Suite 990 Washington, D.C. 20005-3801 (202) 393-3998 (202) 393-3955 – facsimile rebecca.michael@nerc.net holly.hawkins@nerc.net

cc: Alabama Power Company SERC Reliability Corporation

Attachments





Attachment a

Alabama Power's Self-Report dated November 16, 2007



SERC Reliability Corporation Self-Reporting / Complaint Form Template Revision 1 (10-25-07)

Report Type (please check): <u>X</u>Self-Report Complaint

Date of Report: ___<u>11/16/2007</u>_____

NAME OF PERSON REPORTING POSSIBLE STANDARD VIOLATION(S)				
CONTACT NAME	CONTACT TELEPHONE			
Randall Gann	205-257-4026			
CONTACT E-MAIL	CONTACT FAX			
rfgann@southernco.com	(205) 257-6830			
Alabama Power Company	ANONYMOUS? (Y/N)			
NERC OR REGIONAL STANDARD(S) AND SPECIFIC REG VIOLATED	UIREMENT(S) POSSIBLY			
NAME OF COMPANY POSSIBLY VIOLATING STANDARD(S)	ENTITY FUNCTION TYPE(S)			
Alabama Power Company	TO, GO, LSE, DP			
STANDARD # AND VERSION MEASURE / REQUIREMENT	DATE OF POSSIBLE VIOLATION(S)			
FAC-003-1 R 1.2.2	7/22/2007			
POSSIBLE VIOLATION DESCRIPTION, REASON FOR COMI	PLAINT, OR QUESTION			
Standard by allowing kudzu to encroach up a guy wire and come within 5.25 feet of an energized 230 kV transmission line.				
On 7/22/2007 the Miller - Boyles 230 kV transmission line experienced a 19 second operation at 10:32 a.m. The cause of the operation is believed to have been kudzu on a guy wire at structure # 167. The attached Photograph #1 shows the remains of the kudzu on the middle pole guy wire. It is believed that the flashover occurred from the conductor on the back pole to the vegetation on the guy wire of the middle pole. While investigating the operation on 7/23/07 the focus was on whether the operation was reportable per FAC-003-1. Since this was not a sustained outage, the incident was not reportable by the requirements of FAC-003-1.				
A subsequent review of the operation in November brought into question the lateral distance between the guy wire (on which the kudzu was entwined) and the conductor, causing the possible violation of Clearance 2 of the Vegetation Standard. A survey crew was dispatched to determine the distance between the conductor attached to the back pole of the structure and the guy wire attached to the middle pole of the structure. This survey was completed and the results verified on Thursday, November 15. This distance was found to be 5.0 feet. Clearance 2 as defined for Southern Company in its Transmission Vegetation Management Program (TVMP) is 5.25 feet.				



RELIABILITY IMPACT (IF KNOWN)

No reliability impact at the time of the operation or at any time directly following the operation.

SERC Staff will contact the person providing the report as soon as possible. If you do not receive a response from SERC Staff within 2 business days please contact the SERC office (704-357-7372).

Please complete the form as completely as possible and email to <u>serccomply@serc1.org</u>.



Attachment b

Settlement Agreement by and between Alabama Power and SERC executed October 30, 2008

SETTLEMENT AGREEMENT

OF

SERC RELIABILITY CORPORATION

AND

ALABAMA POWER COMPANY

I. INTRODUCTION

1. SERC Reliability Corporation ("SERC") and Alabama Power Company ("Alabama Power") enter into this 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 an alleged violation by Alabama Power of NERC Reliability Standard FAC-003-1 (Transmission Vegetation Management Program), Requirement 2. (SERC Issue Tracking No. 07-236; NERC Violation ID No. SERC200700088.)

II. STIPULATION

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

Background

- 3. Alabama Power is a regulated public utility providing service to approximately 1.4 million electric customers in Alabama. Its corporate headquarters is located in Birmingham, Alabama.
- 4. Alabama Power is registered as a Transmission Owner (NCR01166) and Alabama Power is therefore subject to the Requirements of NERC Reliability Standard FAC-003-1. Alabama Power owns, among other assets, approximately 2,100 corridor miles with transmission lines rated at 230 kV and above. One asset Alabama Power owns is the Miller-Boyles transmission line, which is a 230 kV line that runs between the Miller Steam Plant transmission substation and the Boyles transmission substation, near Tarrant, Alabama.

Alleged Violation

- 5. NERC Reliability Standard FAC-003-1, Requirement R1.2 states that a Transmission Vegetation Management Program ("TVMP") requires, among other things, that "the Transmission Owner shall establish clearances to be achieved at the time of vegetation management work identified herein as Clearance 1, and shall also establish and maintain a set of clearances identified herein as Clearance 2 to be maintained under all rated electrical operating conditions to prevent flashover between vegetation and overhead ungrounded supply conductors."¹ Clearance 1 is the minimum clearance between vegetation and the conductor to which the entity is to trim vegetation at the time work is completed. Clearance 2 is the minimum clearance between vegetation and conductor that should never be encroached. Although the entity is free to determine these Clearances appropriate for conditions unique to each entity. Clearance 2 is subject to an IEEE required minimum of approximately 5.14 feet for a 230 kV line.² With respect to an annual plan for vegetation management work, Requirement 2 of FAC-003-1 also requires that "[e]ach Transmission Owner shall have systems and procedures for documenting and tracking the planned vegetation management work and ensuring that the vegetation management work was completed according to work specifications."³
- 6. As self-reported by Alabama Power to SERC, on July 22, 2007, the Miller-Boyles 230 kV transmission line experienced a nineteen (19) second operation at approximately 10:30 a.m. Alabama Power dispatched personnel to investigate the operation on July 23. In the course of that investigation, Alabama Power personnel identified the remains of kudzu on the middle pole guy wire at structure # 167.
- 7. Kudzu is a fast-growing weed that has a non-woody stem and is common in the southeastern United States. Kudzu vines may grow up to 60 feet in a single season and as much as 1 foot during a single day in the early summer.
- 8. The kudzu appeared withered and dead and not to pose any threat to the operation of the line. Alabama Power nonetheless cut the kudzu plant at the base of the guy wire to prevent the possibility of growth and applied herbicide to the area to eradicate the weed and prevent any future growth. Thereafter, on August 21, an Alabama Power

¹ NERC Standard FAC-003-1 — Transmission Vegetation Management Program, Approved by NERC Board of Trustees on February 7, 2006, Approved by FERC effective June 18, 2007, Requirement R1.2.

² Requirement R1.2.2 of FAC-003-1 incorporates by reference minimum distance standards provided by the Institute of Electrical and Electronics Engineers (IEEE) Standard 516-2003 (*Guide for Maintenance Methods on Energized Power Lines*), and as specified in its Section 4.2.2.3, "Minimum Air Insulation Distances without Tools in the Air Gap." For a 230 kV line such as the Miller-Boyles line, this minimum distance is approximately 5.14 feet.

³ NERC Standard FAC-003-1 — Transmission Vegetation Management Program, Approved by NERC Board of Trustees on February 7, 2006, Approved by FERC effective June 18, 2007, Requirement 2.

crew returned to structure # 167 to confirm the absence of kudzu in the area. No kudzu appeared on the guy wire. Out of caution, a second herbicide treatment was applied to the right-of-way to eradicate any kudzu roots or plant that might have remained following the July 23 application.

- 9. Although Alabama Power could not be certain that the kudzu in fact caused the operation, Alabama Power considered whether a possible violation of FAC-003-1 had occurred if the kudzu had in fact been the cause of the operation. In light of the fact that the operation was not sustained, the incident did not appear reportable by the requirements of FAC-003-1.⁴ As part of a subsequent review of the event undertaken in November of 2007, questions arose as to the lateral distance between the guy wire on which the dead kudzu had been identified and the conductor and whether a possible violation of Clearance 2 of FAC-003-1 might have occurred. Alabama Power thus dispatched a survey crew to determine the distance between the conductor, which is attached to the back pole of the structure, and the guy wire, which was attached to the middle pole of the structure. The survey was completed on November 15, and reported a distance between the conductor and the guy wire of 5.0 feet. Clearance 2 as defined in the applicable Transmission Vegetation Management Program is 5.25 feet. Accordingly, on November 16, Alabama Power filed a self-report with SERC noting a possible violation of FAC-003-1, Requirement R 1.2.2.
- 10. Pursuant to its established procedures, Alabama Power management was kept apprised of the investigation as well as the self-report.
- 11. Additionally, Alabama Power conducted an investigation of its records to ascertain whether any of its other transmission lines had been constructed in such a way that the lateral distance between the guy wire and conductor was comparable to that present on structure # 167. That investigation revealed that the Miller-Boyles line had been converted from 115 kV operation to 230 kV operation in approximately 1990. The conversion was unique to all other 230 kV lines being operated at the time by Alabama Power, in that it was converted using 161 kV structure specifications with additional insulators added for 230 kV operation in an effort to test how well the structure spacing would perform under 230 kV operations. The investigation further verified that no other 230 kV lines were built to the 161 kV specification. Alabama Power thereafter relocated the anchor on the middle pole guy at structure # 167 to provide at least 7 feet clearance between the energized phase and the guy. Alabama Power also surveyed and located all other similar guying configurations on the Miller-Boyles line, and has corrected these configurations.

⁴ NERC Standard FAC-003-1 — Transmission Vegetation Management Program, Approved by NERC Board of Trustees on February 7, 2006, Approved by FERC effective June 18, 2007, Requirement R3. The Requirement states: "The Transmission Owner shall report quarterly to its RRO, or the RRO's designee, <u>sustained</u> transmission line outages determined by the Transmission Owner to have been caused by vegetation." (emphasis added)

- 12. Following its receipt and review of Alabama Power's self-report, SERC Compliance Enforcement Staff (SERC Staff) confirmed Alabama Power's NERC Registration Status as a Transmission Owner and that Alabama Power was subject to the Requirements of NERC Reliability Standard FAC-003-1.
- 13. After confirming Alabama Power's NERC Registration Status, SERC Staff commenced its detailed compliance assessment. On November 29, 2007, SERC Staff requested that Alabama Power provide inspection data for the Miller-Boyles 230 kV transmission line. On December 8, SERC Staff sent Alabama Power another request for data related to the maintenance history of the Miller-Boyles transmission line. On December 9, SERC Staff requested that Alabama Power provide an electronic copy of its Transmission Vegetation Management Plan. On December 13, SERC Staff asked Alabama Power to submit a revised mitigation plan further explaining: (1) how the offending vegetation was mitigated; and (2) how similar structures on Alabama Power's transmission system were being reviewed to identify similar vegetation growth. On December 17, SERC Staff requested that Alabama Power provide documentation of its mitigation work for the Miller-Boyles transmission line. On December 18, SERC Staff requested additional clarification on the herbicide schedule for the Miller-Boyles 230 kV transmission line. On February 13, SERC Staff sent Alabama Power a short questionnaire related to its mitigation plan.
- 14. As a result of its investigation, SERC Staff concluded that the facts and evidence supported a finding that Alabama Power violated Requirement 2 of FAC-003-1, as evidence showed that vegetation in the form of kudzu was allowed to grow within the established clearance. NERC Reliability Standard FAC-003-1, Requirement 2, has a "High" Violation Risk Factor ("VRF").

III. PARTIES' SEPARATE REPRESENTATIONS

Statement of SERC and Summary of Findings

15. Alabama Power's self-report cites a possible violation of Requirement 1.2.2 of Reliability Standard FAC-003-1. However, based on the facts and circumstances, SERC Staff concluded that Alabama Power violated FAC-003-1, Requirement 2. While Alabama Power has an applicable Transmission Vegetation Management Program, SERC Staff identified evidence of a failure in the implementation of the program, which resulted in an encroachment into Clearance 2 space. As a Transmission Owner, Alabama Power was required by FAC-003-1 to specify and maintain Clearance 2 between any 200 kV or greater transmission line and any vegetation surrounding that line. Consistent with this requirement, the Transmission Vegetation Management Program for Alabama Power specifies Clearance 2 as 5.25 feet for the 230 kV Miller-Boyles transmission line. The 19-second operation on the Miller-Boyles line on July 22, 2007 is evidence of Alabama Power's failure to

maintain its specified Clearance 2 with respect to the kudzu in conjunction with the unique design of the guy wire. Thus, the Transmission Vegetation Management Program was not carried out in a manner so as to prevent this contact or flashover with vegetation and this violated FAC-003-1, Requirement 2.

- 16. SERC finds that an encroachment of vegetation into Alabama Power's specified Clearance 2 distance of 5.25 feet between the energized, ungrounded conductor and the vegetation within the right-of-way on its Miller-Boyles 230 kV line near structure # 167 occurred on or before July 22, 2007. Alabama Power's failure to maintain its specified Clearance 2 within the Miller-Boyles 230 kV right-of-way is a violation of FAC-003-1, Requirement 2, because Alabama Power did not implement its Transmission Vegetation Management Program in a manner that took into account the anticipated growth of kudzu in conjunction with the unique design of the guy wire for this transmission line such that, in this case, a clearance of 5.25 feet between the energized, ungrounded conductor and the vegetation within the right-of-way was not maintained. Alabama Power's failure to maintain its specified clearance was the proximate cause leading to the 19-second operation on the Miller-Boyles line on July 22, 2007.
- 17. SERC estimated the duration of the alleged violation to be a single day based on the following factors:
 - (i) Because the kudzu that was the probable cause of the flashover had been significantly damaged from the burning caused from the flashover and was burned back to a distance well in excess of 5.25 feet from the conductor, the actual distance between the conductor and the vegetation at the time of the flashover was impossible to determine with reasonable certainty.
 - (ii) The 19-second operation on the Miller-Boyles line occurred on July 22, 2007, during the growth season for kudzu when the vine can grow up to 1 foot per day.
 - (iii) The kudzu vine most likely propagated along the guy wire, which was measured to be within 5.0 feet of the conductor, and since Alabama Power's Clearance 2 is 5.25 feet and the Minimum Air Insulation Distances for 230 kV lines from the relevant IEEE standard is 5.14 feet, the encroachment into Clearance 2 was most likely less than one foot, thus less than one day's growth.
 - (iv) The encroachment of the vine into Clearance 2 space that gave rise to the alleged violation ended at the moment the flashover occurred, as the vine was burned back to a distance well outside Clearance 2. The vine was destroyed by the heat of the flashover such that further growth had ceased. In addition, Alabama Power cut the vine back to the ground and applied herbicide to the base of the vine on the day after the flashover, July 23,2007, to further prevent growth into Clearance 2. Finally, Alabama Power patrolled the remainder of its transmission system operated at 200 kV and above and found no other

instances of vegetation encroachment into Clearance 2. Therefore, SERC concluded that the duration of the alleged violation ended on the day of the flashover, July 22, 2007.

- 18. SERC considered a number of factors in determining the benefit of the remedies required for this alleged violation, including:
 - (i) Alabama Power has an internal compliance program that was developed using Commission guidance. Alabama Power has participated in voluntary compliance programs prior to the effective date of the mandatory and enforceable reliability standards. This comprehensive program includes dedicated compliance personnel who are responsible for compliance. SERC acknowledges that this compliance program is a competent compliance program based on their review.
 - (ii) Alabama Power self-reported the possible violation, has cooperated in every respect with SERC throughout the proceeding and provided timely responses to all of SERC Staff's questions about the details of this alleged violation. There is no prior violation history for Alabama Power of this standard or a closely-related requirement. There is no indication of an attempt by Alabama Power to conceal any information. There is no indication that the violation was intentional.
- 19. SERC Staff concluded that the actual or foreseeable impact of the alleged violation on the reliable operation of the bulk-power system was minimal because the encroachment of vegetation to within Alabama Power's established Clearance 2: (a) was isolated to a single location on Alabama Power's system and a specific section of line with a unique design configuration that contributed to the ability of the kudzu to exceed the Clearance 2 limit; (b) involved exceptionally fast-growing vegetation unlikely to be able to conduct current from a flashover required to cause a sustained outage; and (c) the flashover and 19-second operation that SERC Staff believes resulted from the isolated encroachment caused no loss of generation or load as, by design, the load the affected line was carrying was redistributed over two other lines that run in parallel to it and those lines did not reach any operational limits during that time.
- 20. 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 Alabama Power

21. Alabama Power neither admits nor denies that the facts set forth and agreed to by the parties for purposes of this Settlement Agreement constitute a violation of Reliability Standard FAC-003-1.

22. Although Alabama Power does not admit to, nor does it deny, the alleged violation, Alabama Power 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. Alabama Power agrees that this Settlement Agreement is in the best interest of the parties and in the best interest of bulk-power system reliability.

IV. MITIGATING ACTIONS, REMEDIES AND SANCTIONS

- 23. For purposes of settling any and all disputes arising from SERC's assessment into the matters reported by Alabama Power in its self-report, SERC and Alabama Power agree that on March 4, 2008, Alabama Power provided to SERC a letter, attached hereto as Appendix A-2, certifying that it had completed implementation of the Mitigation Plan accepted by SERC and approved by NERC, attached hereto as Appendix A-1. In addition to the actions completed by Alabama Power pursuant to the Mitigation Plan and paragraph 25 of this Settlement Agreement, Alabama Power shall pay a monetary penalty of \$50,000 to SERC via check within twenty days of this Settlement Agreement either being approved by the Commission or becoming effective by operation of law. SERC shall notify Alabama Power and NERC if the payment is not received.
- 24. SERC accepted Alabama Power's Mitigation Plan on March 20, 2008 and NERC approved the Mitigation Plan on March 26, 2008. The Mitigation Plan is identified as MIT-07-0464 and was submitted as non-public information to the Commission on March 26, 2008 in accordance with Commission orders. Alabama Power certified on March 4, 2008 that the Mitigation Plan was completed on July 23, 2007. Alabama Power's Mitigation Plan, its Certification of Mitigation Plan Completion and the Statement of SERC Reliability Corporation Compliance Staff Regarding Completion of Mitigation Plan are attached hereto as Appendix A.
- 25. In addition to the actions to restore compliance set forth in the Mitigation Plan attached as Appendix A-1, SERC and Alabama Power agree that, as of the effective date of this Settlement Agreement, Alabama Power had taken the following actions to prevent recurrence of a similar violation:

Activity		Date Completed
1	Alabama Power performed an inspection of structure # 167 to confirm that all kudzu in the area had not re-grown. Out of an abundance of caution, a second herbicide treatment was applied to the right-of-way to eradicate any kudzu roots or plant that might have remained.	August 21, 2007
2	Alabama Power re-located the anchor on the middle pole	December 13, 2007

	guy at structure # 167 to provide at least seven (7) feet clearance between energized phase and the guy.	
3	Alabama Power surveyed all other similar guying configurations on the Miller-Boyles transmission line and re-located the anchor and/or re-framed the entire structure on similar guying configurations to provide at least seven (7) feet clearance between energized phase and the guy and thus ensure that the guy is outside of Clearance 2.	May 28, 2008
4	Alabama Power analyzed the design specification records for all of its 230 kV transmission lines to ensure that no other transmission lines were built using the same design test specifications as the Miller-Boyles transmission line had been.	May 28, 2008

- 26. SERC has reviewed the various actions described in paragraph 25 above and determined that these measures will assist Alabama Power in improving prospective compliance with the requirements of FAC-003-1 and will ultimately enhance the reliability of the bulk-power system within an appropriate time-frame. In order to facilitate SERC's need to confirm the completion status and provide accountability to NERC, Alabama Power has provided SERC with documentation to confirm the completion of these activities. These documents include copies of work orders and other project charge descriptions from Alabama Power's TEAMS work order system. SERC has reviewed this documentation and determined that it sufficiently supports a finding that Alabama Power has completed these additional corrective actions. These and other documents related to this proceeding will be maintained by SERC in accordance with the confidentiality provisions of Section 1500 of the NERC Rules of Procedure.
- 27. It is understood that SERC may audit the completion of this mitigation plan, including, but not limited to site inspection, interviews, and request other documentation to validate completion of the mitigation plan under this Settlement Agreement. SERC shall reasonably coordinate audits and information requests with Alabama Power related to this Settlement Agreement.
- 28. The factors considered in the penalty determination include:
 - (i) The inconsequential actual and foreseeable impact on the reliable operation of the bulk-power system due to the alleged violation;
 - (ii) The absence of a prior violation by Alabama Power of the same or a closely-related standard;
 - (iii) Alabama Power's cooperation with SERC Staff during the investigation;

- (iv) Alabama Power's self-report of the alleged violation;
- (v) Alabama Power's lack of intent to commit or to conceal the alleged violation;
- (vi) Alabama Power's agreement to expeditiously reconcile this issue via settlement; and its execution of the actions set forth in paragraph 25 to prevent recurrence of a similar violation and improve Bulk-Power System reliability;
- (vii) The presence and quality of Alabama Power's comprehensive compliance program; and
- (viii) The extensive mitigation measures implemented by Alabama Power to correct the alleged violation and to protect against future violations of the same requirement.
- 29. In addition to the above factors, SERC Staff recognized Alabama Power's self-report as a significant mitigating factor of this alleged violation, which is related to a momentary outage that would not normally be included in the quarterly reports of outages caused by vegetation required pursuant to FAC-003-1, Requirement 2.
- 30. Based on the above factors, as well as the mitigation actions and preventative measures taken, Alabama Power shall pay \$50.000 to SERC as set forth in this Settlement Agreement. Alabama Power shall remit the payment to SERC via check, or by wire transfer to an account to be identified by SERC ("SERC Account"), within twenty days after SERC provides Alabama Power with a notice of penalty payment due and invoice, to be issued by SERC after this Settlement Agreement is either approved by the Commission or by operation of law. SERC shall notify NERC, and NERC shall notify the Commission, if the payment is not timely received. SERC shall also notify Alabama Power if the payment is not timely received. If Alabama Power 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.
- 31. The costs to Alabama Power to implement the agreed to actions in paragraph 25 are \$110,278.71. SERC may audit and inspect financial records to validate actual expenditures with estimates in this Settlement Agreement. Funding and programs associated with this Settlement Agreement will be above Alabama Power's original planned budget and programs for its 2008 transmission Operations and Maintenance budget.
- 32. 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, may subject Alabama Power to new or additional enforcement, penalty or sanction

actions in accordance with the NERC Rules of Procedure. Alabama Power will retain all rights to defend against such enforcement actions in accordance with the NERC Rules of Procedure.

V. ADDITIONAL TERMS

- 33. 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 Alabama Power 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.
- 34. 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 Alabama Power 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 Alabama Power including any changes to the settlement 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 the alleged violation and the terms provided for in the settlement.
- 35. The Agreement will be submitted to the Commission and will be subject to Commission review pursuant to section 39.7 of the Commission's regulations.
- 36. This Settlement Agreement shall become effective upon NERC approval and the Commission's approval of the Settlement Agreement by order or operation of applicable law as submitted to it or as modified in a manner acceptable to the parties.
- 37. Alabama Power agrees that this Settlement Agreement, when approved by NERC and the Commission without material modification, shall represent a final settlement of all matters set forth herein. Absent an assertion by Alabama Power that there has been any material modification, Alabama Power waives its right to further hearings and appeal.
- 38. 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.

- 39. 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.
- 40. The Settlement Agreement may be signed in counterparts.
- 41. 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. Agreed to and accepted:

Gerry W. Cauley

08

President and CEO (// SERC Reliability Corporation ("SERC")

Bobby J. Kerley

16/08 101

Date

Vice President - Transmission Alabama Power Company ("Alabama Power")

APPENDIX A TO SETTLEMENT AGREEMENT OF SERC RELIABILITY CORPORATION AND ALABAMA POWER COMPANY

(1) Alabama Power's Mitigation Plan

(2) Alabama Power's Certification of Mitigation Plan Completion

(3) Statement of SERC Reliability Corporation Compliance Staff Regarding Completion of Alabama Power's Mitigation Plan Appendix A 1



Mitigation Plan Submittal Form

Date this Mitigation Plan is being submitted: 11-16-07 (revised 02-06-08)

If this Mitigation Plan has already been completed:

- Check this box \boxtimes and
- Provide the Date of Completion of the Mitigation Plan: 7-23-07

Section A: <u>Compliance Notices</u>

- Section 6.2 of the CMEP¹ sets forth the information that must be included in a Mitigation Plan. The Mitigation Plan must include:
 - (1) The Registered Entity's point of contact for the Mitigation Plan, who shall be a person (i) responsible for filing the Mitigation Plan, (ii) technically knowledgeable regarding the Mitigation Plan, and (iii) authorized and competent to respond to questions regarding the status of the Mitigation Plan. This person may be the Registered Entity's point of contact described in Section 2.0.
 - (2) The Alleged or Confirmed Violation(s) of Reliability Standard(s) the Mitigation Plan will correct.
 - (3) The cause of the Alleged or Confirmed Violation(s).
 - (4) The Registered Entity's action plan to correct the Alleged or Confirmed Violation(s).
 - (5) The Registered Entity's action plan to prevent recurrence of the Alleged or Confirmed violation(s).
 - (6) The anticipated impact of the Mitigation Plan on the bulk power system reliability and an action plan to mitigate any increased risk to the reliability of the bulk power-system while the Mitigation Plan is being implemented.
 - (7) A timetable for completion of the Mitigation Plan including the completion date by which the Mitigation Plan will be fully implemented and the Alleged or Confirmed Violation(s) corrected.
 - (8) Implementation milestones no more than three (3) months apart for Mitigation Plans with expected completion dates more than three (3) months from the date of submission. Additional violations could be determined for not completing work associated with accepted milestones.
 - (9) Any other information deemed necessary or appropriate.
 - (10) The Mitigation Plan shall be signed by an officer, employee, attorney or other authorized representative of the Registered Entity, which if applicable, shall be the person that signed the Self-Certification or Self Reporting submittals.

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¹ "Uniform Compliance Monitoring and Enforcement Program of the North American Electric Reliability Corporation;" a copy of the current version approved by the Federal Energy Regulatory Commission is posted on NERC's website.



- This submittal form shall be used to provide a required Mitigation Plan for review and approval by SERC and NERC.
- The Mitigation Plan shall be submitted to SERC and NERC as confidential information in accordance with Section 1500 of the NERC Rules of Procedure.
- This Mitigation Plan form may be used to address one or more related violations of one Reliability Standard. A separate mitigation plan is required to address violations with respect to each additional Reliability Standard, as applicable.
- If the Mitigation Plan is approved by SERC and NERC, a copy of this Mitigation Plan will be provided to the Federal Energy Regulatory Commission in accordance with applicable Commission rules, regulations and orders.
- SERC or NERC may reject Mitigation Plans that they determine to be incomplete or inadequate.
- Remedial action directives also may be issued as necessary to ensure reliability of the bulk power system.

Section B: Registered Entity Information

B.1 Identify your organization:

Company Name:	Alabama Power Company
Company Address:	600 North 18th Street, P. O. Box 2641
	Birmingham, AL 35203-2206

NERC Compliance Registry ID [if known]: NCR01166

B.2 Identify the individual in your organization who will serve as the Contact to SERC regarding this Mitigation Plan. This person shall be technically knowledgeable regarding this Mitigation Plan and authorized to respond to SERC regarding this Mitigation Plan.

Name:	Randall Gann
Title:	Contract Services Manager
Email:	rfgann@southernco.com
Phone:	Office: (205) 257-4026 Fax: (205) 257-6830

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Section C: Identity of Reliability Standard Violations Associated with this Mitigation Plan

This Mitigation Plan is associated with the following violation(s) of the reliability standard listed below:

- C.1 Standard: FAC-003-1 [Identify by Standard Acronym (e.g. FAC-001-1)]
- C.2 Requirement(s) violated and violation dates: [Enter information in the following Table]

NERC Violation ID # [if known]	SERC Violation ID # [if known]	Requirement Violated (e.g. R3.2)	Violation Date ^(*)
		R1.2.2	07/22/2007

(*) Note: The Violation Date shall be: (i) the date that the violation occurred; (ii) the date that the violation was self-reported; or (iii) the date that the violation has been deemed to have occurred on by SERC. Questions regarding the date to use should be directed to SERC.

C.3 Identify the cause of the violation(s) identified above:

On 7/22/2007 the Miller - Boyles 230 kV transmission line experienced a 19 second operation at 10:32 a.m. The cause of the operation is believed to have been kudzu on a guy wire at structure # 167. It is believed that the flashover occurred from the conductor on the back pole to the vegetation on the guy wire of the middle pole. While investigating the operation on 7/23/07 the focus was on whether the operation was reportable per FAC-003-1. Since this was not a sustained outage, the incident was not reportable by the requirements of FAC-003-1.

A subsequent review of the operation in November brought into question the lateral distance between the guy wire (on which the kudzu was entwined) and the conductor, causing the possible violation of Clearance 2 of the Vegetation

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Standard. A survey crew was dispatched to determine the distance between the conductor attached to the back pole of the structure and the guy wire attached to the middle pole of the structure. This survey was completed and the results verified on Thursday, 11/15/2007. This distance was found to be 5.0 feet. Clearance 2 as defined for Southern Company in its Transmission Vegetation Management Program (TVMP) is 5.25 feet.

[Provide your response here; additional detailed information may be provided as an attachment as necessary]

C.4 **[Optional]** Provide any relevant additional information regarding the violations associated with this Mitigation Plan:

[Provide your response here; additional detailed information may be provided as an attachment as necessary]

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Section D: Details of Proposed Mitigation Plan

Mitigation Plan Contents

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 violations identified above in Part C.2 of this form:

Operations notified vegetation personnel of possible kudzu problem at structure # 167 at approximately 10:00 a.m. on 7/23/2007. Vegetation crew and Line Clearing Specialist arrived at structure # 167 around 11:00 a.m.. Kudzu on the middle pole guy wire in the vicinity of the conductor was withered, dead and no longer a threat to the operation of the line. The remaining kudzu on the guy was cut at the base of the guy wire to prevent further encroachment. Herbicide was applied to the kudzu to eradicate the weed.

Mitigation action at structure # 167 was complete on 7/23/2007. [Provide your response here; additional detailed information may be provided as an attachment as necessary]

Check this box \boxtimes and proceed to Section E of this form if this Mitigation Plan, as set forth in Part D.1, has already been completed; otherwise respond to Part D.2, D.3 and, optionally, Part D.4, below.

Mitigation Plan Timeline and Milestones

- D.2 Provide the timetable for completion of the Mitigation Plan, including the completion date by which the Mitigation Plan will be fully implemented and the violations associated with this Mitigation Plan are corrected:
- D.3 Enter Milestone Activities, with completion dates, that your organization is proposing for this Mitigation Plan:

Milestone Activity	Proposed Completion Date* (shall not be more than 3 months apart)		

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(*) Note: Implementation milestones no more than three (3) months apart for Mitigation Plans with expected completion dates more than three (3) months from the date of submission. Additional violations could be determined for not completing work associated with accepted milestones.

[Note: Provide your response here; additional detailed information may be provided as an attachment as necessary]

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Additional Relevant Information (Optional)

D.4 If you have any relevant additional information that you wish to include regarding the mitigation plan, milestones, milestones dates and completion date proposed above you may include it here:

[Provide your response here; additional detailed information may be provided as an attachment as necessary]

Section E: Interim and Future Reliability Risk

Check this box \boxtimes and proceed and respond to Part E.2 and E.3, below, if this Mitigation Plan, as set forth in Part D.1, has already been completed.

Abatement of Interim BPS Reliability Risk

E.1 While your organization is implementing the Mitigation Plan proposed in Part D of this form, the reliability of the Bulk Power System 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 or is proposing as part of the Mitigation Plan to mitigate any increased risk to the reliability of the bulk power system while the Mitigation Plan is being implemented:

[Provide your response here; additional detailed information may be provided as an attachment as necessary]

Prevention of Future BPS Reliability Risk

E.2 Describe how successful completion of the Mitigation Plan as laid out in Part D of this form will prevent or minimize the probability that your organization incurs further violations of the same or similar reliability standards requirements in the future:

With kudzu cut from the roots and herbicide applied to the kudzu in this area the threat will be removed.

[Provide your response here; additional detailed information may be provided as an attachment as necessary]

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E.3 Your organization may be taking or planning other action, beyond that listed in the Mitigation Plan, as proposed in Part D.1, to prevent or minimize the probability of incurring further violations of the same or similar standards requirements listed in Part C.2, or of other reliability standards. If so, identify and describe any such action, including milestones and completion dates:

Additional action was taken on 8/21/2007 when crew revisited structure #167 and applied second herbicide treatment to any kudzu on the rightof-way that was not killed by the application on 7/23/2007.

Other action to be taken will be relocating the anchor on the middle pole guy at structure # 167 to provide at least 7 feet clearance between the energized phase and the guy. 7 feet clearance already exists between the other guys and conductors on this structure and no modification of these facilities are necessary. The other multi-pole angle structures in this line will also be field checked to verify this construction anomally did not occur elsewhere.

This additional action work will begin as soon as possible and will be complete prior to 1/1/2008.

This particular Transmission line was converted from 115 kV operation to 230 kV operation circa 1990. This conversion was unique to all other 230 kV lines being operated at that time by Alabama Power Company because it was converted using the 161 kV structure specifications with additional insulators added for 230 kV operation. The purpose of the test case was to see how well the structure spacing would perform (regarding BIL) under 230 kV operations. Alabama Power Company has performed a records check of all other 230 kV lines to verify that no other transmission lines operated at 230 kV were built to this 161 kV specification. This specification caused the guy spacing to be less than normal.

[Provide your response here; additional detailed information may be provided as an attachment as necessary]

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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 the Mitigation Plan, as laid out in Section D of this form, to SERC for acceptance by SERC and approval by NERC, and
- b) If applicable, certifies that the Mitigation Plan, as laid out in Section D of this form, was completed (i) as laid out in Section D of this form and (ii) on or before the date provided as the 'Date of Completion of the Mitigation Plan' on this form, and
- c) Acknowledges:
 - 1. I am Vice President - Transmission of Alabama Power Company.
 - 2. I am gualified to sign this Mitigation Plan on behalf of Alabama Power Company.
 - 3. I have read and understand Alabama Power Company 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(C) (Compliance Monitoring and Enforcement Program of the North American Electric Reliability Corporation" (NERC CMEP)).
 - 4. I have read and am familiar with the contents of the foregoing Mitigation Plan.
 - 5. Alabama Power Company agrees to be bound by, and comply with, the Mitigation Plan, including the timetable completion date, as approved by SERC and approved by NERC.

Authorized Individual Signature

(Electronic signatures are acceptable, see CMEP)

Name (Print): Bobby J. Kerley Title: Vice President – Transmission Date: February 8, 2008

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Appendix A-1



Section G: <u>Comments and Additional Information</u>

You may use this area to provide comments or any additional relevant information not previously addressed in this form.

[Provide your response here; additional detailed information may be provided as an attachment as necessary]

Submittal Instructions:

Please convert the completed and signed document to an Adobe .pdf document using the following naming convention:

[(MP Entity Name (STD-XXX) MM-DD-YY.pdf)]

Email the pdf file to serccomply@serc1.org.

Please direct any questions regarding completion of this form to:

Ken Keels Manager, Compliance Enforcement SERC Reliability Corporation 704-357-7372 kkeels@serc1.org

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Form Rev. Date - 10/25/07

Appendix A-1

Addendum to Mitigation Plan SERC Tracking No. 2007-236 Alabama Power Co. Possible Violation of FAC-003-1, R2

Re: Mitigation plan submitted February 8, 2008

Question 1: In section E.3 of the mitigation plan, Alabama Power states "Additional action was taken on 8/21/2007 when crew revisited structure #167 and applied second herbicide treatment to any kudzu on the right-of-way that was not killed by the application on 7/23/2007."

SERC would like to know if there are additional areas where kudzu is a concern and if Alabama Power has considered revisiting them on a more frequent basis?

There are many areas where kudzu is a concern. We perform a total aerial inspection quarterly to identify all transmission issues, including vegetation. We held a meeting with the aerial contractor in January of this year to reiterate the importance of recognizing imminent and potential issues regarding kudzu.

In addition, our Transmission vegetation management group has increased emphasis on this issue. Each responsibility area now has a spread sheet denoting all locations where vines and kudzu are reported to be present. In each of the months from June to September, Alabama Power Company field personnel will visit these locations to assess vine and kudzu encroachments and take appropriate actions.

Question 2: Section E.3 also includes a statement that : "Other action to be taken will be relocating the anchor on the middle pole guy at structure # 167 to provide at least 7 feet clearance between the energized phase and the guy. 7 feet clearance already exists between the other guys and conductors on this structure and no modification of these facilities are necessary. The other multi-pole angle structures in this line will also be field checked to verify this construction anomaly did not occur elsewhere.

"This additional action work will begin as soon as possible and will be complete prior to 1/1/2008."

SERC would like to know if that work was completed by 1/1/08.

The modification work at Structure # 167 was completed on December 13, 2007.

Question 3: Regarding that same statement in Section E.3,

• Has the field check of other structures taken place?

Field survey work on the additional angle structures on the Miller- Boyles 230 kV line was completed on February 4, 2008.

• If so, were there any additional structures found that need to be reguyed?

In addition to Structure # 167, there were 8 other angle structures. 2 of these 8 structures required no modifications. 6 angle structures were found to have guys within 5 feet of the conductors.

• If re-guying will occur, when will this work be accomplished?

Engineering is currently designing the modifications to 6 angle structures. Once the design is complete, the actual re-framing modification work is to be completed by June 1, 2008. Bobby J. Kerley Vice President Appendix A-2 Southern Company Transmission 600 North 18th Street Post Office Box 2641 Birmingham, Alabama 35291

Tel 205.257.4066 Fax 205.257.1818



Certification of a Completed Mitigation Plan

SERC Reliability Corporation Violation Mitigation Plan Closure Form (Form Revised 10-25-07)

Name of Registered Entity submitting certification: Alabama Power Company

Date of Certification: March 4, 2008

Name of Standard and the Requirement(s) of mitigated violation(s): FAC-003-1, R1.2.2

SERC Tracking Number (contact SERC if not known): 2007-236

NERC Violation ID Number (if assigned):

Date of completion of the Mitigation Plan: July 23, 2007

I certify that the mitigation plan for the above named violation has been completed on the date shown above, and that all information submitted information is complete and correct to the best of my knowledge.

Name: Bobby J. Kerley Title: Vice President - Transmission Entity: Alabama Power Company Email: bjkerley@southernco.com Phone: (205) 257-4066

Date 3 Executive Signature



Statement of SERC Reliability Corporation Compliance Staff Regarding Completion of Mitigation Plan

Registered Entity:Alabama Power Company (Alabama Power)SERC Tracking ID:07-236NERC Violation No:SERC200700088NERC Mitigation Plan ID:MIT-07-0464Standard:FAC-003-1Requirement:R2

Alleged Violation Summary:

SERC finds that an encroachment of vegetation into Alabama Power's specified Clearance 2 distance of 5.25 feet between the energized, ungrounded conductor and the vegetation within the right-of-way on its Miller-Boyles 230 kV line near structure # 167 occurred on or before July 22, 2007. Alabama Power's failure to maintain its specified Clearance 2 within the Miller-Boyles 230 kV right-of-way is a violation of FAC-003-1, R2, because Alabama Power did not implement its Transmission Vegetation Management Program in a manner that took into account the anticipated growth of kudzu in conjunction with the unique design of the guy wire for this transmission line such that, in this case, a clearance of 5.25 feet between the energized, ungrounded conductor and the vegetation within the right-of-way was not maintained. Alabama Power's failure to maintain its specified clearance was the proximate cause leading to the 19-second operation on the Miller-Boyles line on July 22, 2007.

Mitigation Plan Summary:

Alabama Power's Mitigation Plan dated November 16, 2007 to address the referenced alleged violation was initially submitted to SERC on November 27, 2007 and revised on February 8, 2008, retaining the initial submittal date. On February 21, 2007, at the request of SERC Compliance Enforcement Staff, Alabama Power provided a Supplement to the Mitigation Plan, responding to questions posed by SERC Compliance Enforcement Staff. The revised Mitigation Plan with the supplemental information was accepted by SERC on March 20, 2008 and was approved by NERC on March 26, 2008. The Mitigation Plan for the alleged violation of FAC-003-1 R2 is designated as MIT-07-0464 and was submitted as non-public information to FERC on March 26, 2008 in accordance with FERC orders.

Alabama Power submitted its Mitigation Plan based on its self-reported possible violation of Requirement 1.2.2. Subsequently, SERC Staff determined the violation is more correctly cited as a violation of Requirement 2. SERC Staff did not require or request Alabama Power to modify the Mitigation Plan because the steps taken to mitigate the violation and to prevent recurrence, as described in the Mitigation Plan, even though the self-report and Mitigation Plan cited the inappropriate requirement.



To mitigate the alleged violation, the offending vegetation was killed and herbicide was applied to the area. This mitigating activity was completed on July 23, 2007.

In order to prevent recurrence, Alabama Power performed an inspection of structure # 167 to confirm that all kudzu in the area had not re-grown. Out of an abundance of caution, a second herbicide treatment was applied to the right-of-way to eradicate any kudzu roots or plant that might have remained. This action to prevent a recurrence was completed August 21, 2007.

Alabama Power re-located the anchor on the middle pole guy at structure # 167 to provide at least seven (7) feet clearance between energized phase and the guy. This action to prevent a recurrence was completed December 13, 2007.

Alabama Power surveyed all other similar guying configurations on the Miller-Boyles transmission line and re-located the anchor and/or re-framed the entire structure on similar guying configurations to provide at least seven (7) feet clearance between energized phase and the guy and thus ensure that the guy is outside of Clearance 2. This action to prevent a recurrence was completed May 28, 2008.

Alabama Power analyzed the design specification records for all of its 230 kV transmission lines to ensure that no other transmission lines were built using the same design test specifications as the Miller-Boyles transmission line had been. This action to prevent a recurrence was completed May 28, 2008.

SERC's Monitoring of Registered Entity's Mitigation Plan Progress:

SERC Staff monitors the Registered Entity's progress towards completion of its Mitigation Plans in accordance with Section 6.0 of the uniform Compliance Monitoring and Enforcement Program, ("CMEP"). Pursuant to the CMEP, Registered Entities are required to establish implementation milestones no more than three (3) months apart. SERC Staff solicits quarterly reports from all Registered Entities with open mitigation plans to monitor the progress on completion of milestones. SERC Staff also produces and reviews daily Mitigation Plan status reports highlighting Mitigation Plans that are nearing the scheduled completion date. If the Registered Entity fails to complete its Mitigation Plan according to schedule, appropriate additional enforcement action is initiated to assure compliance is attained.

Mitigation Plan Completion Review Process:

Alabama Power certified on March 4, 2008 that the subject Mitigation Plan was completed on July 23, 2007. A SERC compliance staff member reviewed the evidence submitted in a manner similar to a compliance audit. That action was followed by another compliance staff member's peer review of the initial conclusion.



Evidence Reviewed:

Alabama Power submitted and SERC Staff reviewed the following evidence in support of its certification that its Mitigation Plan was completed in accordance with its terms:

- Photograph of probable flashover location: *Photograph dated November 6, 2007* shows a single kudzu vine attached to a down-guy of a pole structure. The vine appears to be completely dead.
- Weekly Work Reports for vegetation control contractor for the week ending July 28, 2007: Reports show the workers were dispatched to the area where the flashover occurred and treated the vines in that area.
- Alabama Power Company Work Order PI Number 2969105: This completed work order was written to "Reconfigure guying on Str. 167 to increase guy to conductor clearance."
- Alabama Power Company Project Item Actual Charges Summary for PI 2969105: Report records specific charges against the work order to reconfigure guying at structure 167.
- Alabama Power Company Work Order PI Number 2185926: This completed work order was written to reconfigure guying on eight structures of the Miller-Boyles line.
- Alabama Power Company Project Item Actual Charges Summary for PI 2185926: Report records specific charges against the work order to reconfigure guying of eight structures of the Miller-Boyles line.

Conclusion:

On June 27, 2008 SERC Staff completed its review of the evidence submitted by Alabama Power, in support of its Certification of Completion of the subject Mitigation Plan. Based on its review of the evidence submitted, SERC Staff hereby verifies that, in its professional judgment, all required actions in the Mitigation Plan have been completed and Alabama Power is in compliance with the subject Reliability Standard Requirements.

This Statement, along with the subject Mitigation Plan, may become part of a public record upon final disposition of the possible violation.

Respectfully Submitted,

John Wolfmeyer, Compliance Engineer Sam Stryker, Auditor

October 22, 2008



Attachment c

Notice of Filing

UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION

Alabama Power Company

Docket No. NP09-___-000

NOTICE OF FILING September 25, 2009

Take notice that on September 25, 2009, the North American Electric Reliability Corporation (NERC) filed a Notice of Penalty regarding Alabama Power Company in the SERC Reliability Corporation region.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed on or before the comment date. On or before the comment date, it is not necessary to serve motions to intervene or protests on persons other than the Applicant.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the "eFiling" link at http://www.ferc.gov. Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, N.E., Washington, D.C. 20426.

This filing is accessible on-line at http://www.ferc.gov, using the "eLibrary" link and is available for review in the Commission's Public Reference Room in Washington, D.C. There is an "eSubscription" link on the web site that enables subscribers to receive email notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please email FERCOnlineSupport@ferc.gov, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Comment Date: [BLANK]

Kimberly D. Bose, Secretary