

February 28, 2022

#### 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 Tennessee Valley Authority, FERC Docket No. NP22-\_-000

Dear Ms. Bose:

The North American Electric Reliability Corporation (NERC) hereby provides this Notice of Penalty<sup>1</sup> regarding Tennessee Valley Authority (TVA or the Entity), NERC Registry ID# NCR01151,<sup>2</sup> in accordance with the Federal Energy Regulatory Commission's (Commission or FERC) rules, regulations, and orders, as well as NERC's Rules of Procedure including Appendix 4C (NERC Compliance Monitoring and Enforcement Program (CMEP)).<sup>3</sup>

NERC is filing this Notice of Penalty, with information and details regarding the nature and resolution of the violations,<sup>4</sup> with the Commission because SERC Reliability Corporation (SERC) and the Entity have entered into a Settlement Agreement to resolve all outstanding issues arising from SERC's determination and findings of the violations of the Operations and Planning Reliability Standards listed below.

1325 G Street NW Suite 600 Washington, DC 20005 202-400-3000 | <u>www.nerc.com</u>

<sup>&</sup>lt;sup>1</sup> Rules Concerning Certification of the Electric Reliability Organization; and Procedures for the Establishment, Approval, and Enforcement of Electric Reliability Standards, Order No. 672, 114 FERC ¶ 61,104, order on reh'g, Order No. 672-A, 114 FERC ¶ 61,328 (2006); Notice of New Docket Prefix "NP" for Notices of Penalty Filed by the N. Am. Elec. Reliability Corp., Docket No. RM05-30-000 (February 7, 2008); Mandatory Reliability Standards for the Bulk-Power System, Order No. 693, 118 FERC ¶ 61,218, order on reh'g, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

<sup>&</sup>lt;sup>2</sup> Tennessee Valley Authority (TVA) was included on the NERC Compliance Registry as a BA, DP, GO, GOP, PA/PC, RC, RP, TO, TOP, TP, and TSP on May 31, 2007.

<sup>&</sup>lt;sup>3</sup> See 18 C.F.R § 39.7(c)(2) and 18 C.F.R § 39.7(d).

<sup>&</sup>lt;sup>4</sup> For purposes of this document, each violation at issue is described as a "violation," regardless of its procedural posture and whether it was a possible, alleged, or confirmed violation.



According to the Settlement Agreement, the Entity neither admits nor denies the violation, but has agreed to 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 Violations**

This Notice of Penalty incorporates the findings and justifications set forth in the Settlement Agreement, by and between SERC and the Entity. The details of the findings and basis for no penalty are set forth in the Settlement Agreement and herein.

In accordance with Section 39.7 of the Commission's regulations, 18 C.F.R. § 39.7 (2021), NERC provides the following summary table identifying each violation of a Reliability Standard resolved by the Settlement Agreement. Further information on the subject violations is set forth in the Settlement Agreement and herein.

Violation(s) Determined and Discovery Method *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	Penalty Amount		
SERC2017017713	FAC-008-3	R3	Medium/ Severe	ТО	SPC/CA 6/8/17	1/1/13 to 7/31/26 (expected mitigation completion date)	No monetary penalty; non- monetary sanctions		

#### Information About the Entity

TVA is a corporate agency and instrumentality of the United States created by the TVA Act of 1933 with a total generation capacity of 33,526 MW with an additional 3,988 MW of contract generation capacity from Power Purchasing Agreements (PPAs). TVA operates its power system facilities in a vertically integrated manner, providing electric power to 154 Local Power Companies (LPCs) and certain end-use customers, primarily large commercial and industrial loads and federal agencies. TVA has approximately 16,000 miles of transmission line and 69 interconnections with neighboring Balancing Authorities (BAs).

#### **Executive Summary**

TVA's Facility Rating Methodology (FRM) allowed the use of historical Facility Ratings or design ratings leading to inaccurate ratings at TVA Facilities. In 2017, SERC conducted a Spot Check, causing TVA to



derate approximately 16% of sampled Facility Ratings. While there was one instance of a higher derate of 49.4%, the other eight derates ranged from 5.1% to 22.1% of the prior incorrect rating. TVA did not exceed the correct Facility Ratings for any of these four substations. In 2019, SERC conducted a Compliance Audit and walked-down two substations: SERC did not discover any Facility Rating changes required.

#### FAC-008-3 R3

SERC determined that TVA was in violation of FAC-008-3 R3. SERC found that TVA's Facility Rating Methodology (FRM) allowed the use of historical Facility Ratings and design drawings to establish initial Equipment Ratings until TVA updated the Facility Ratings to reflect the as-built configuration. The FRM also did not specify the timing for this update and, as a result, it could occur months or years after installation. The revised version of FAC-008-3, which became mandatory and enforceable on January 1, 2013, precludes this use of historical Facility Ratings or design drawings to establish initial Equipment Ratings. Consequently, TVA is required to verify that its initial Equipment Ratings utilized to establish its Facility Ratings reflect the actual equipment installed in the field. Furthermore, as a result of TVA's failure to update its FRM and its reliance on its historical Facility Ratings and design drawings, TVA's Facility Ratings did not consistently consider the Equipment Ratings that TVA actually installed in the field.

In 2019, TVA submitted a mitigation plan to SERC that required TVA to update its FRM to remove the use of historical Facility Ratings and design drawings. Prior to the effective date of TVA's updated FRM, SERC performed a Compliance Audit in which 22 additional equipment rating discrepancies were discovered on equipment types beyond buses and jumpers. During this audit, no required Facility Rating changes were discovered. However, as a result of the additional equipment rating discrepancies, SERC determined that TVA's mitigation activities to verify ratings should be expanded beyond the initial limited scope of buses and jumpers.

In response to SERC's request to expand the mitigation plan, TVA submitted an updated mitigation plan to SERC in 2021 whereby TVA agreed to conduct walk-downs of 100% of its transmission substation and switching station facilities over a five-year period to verify the installed equipment that factors into the determination of Facility Ratings. TVA will mitigate the full extent of the condition within the approved mitigation plan's established milestone dates.

The root cause of the violation associated with the incorrect bus and jumper ratings was TVA's erroneous interpretation of FAC-008 R3 as reflected in its FRM—specifically, TVA's mistaken belief, and failure to validate, that it could rely on historical Facility Ratings or design drawings until such time TVA updated the ratings to reflect the as-built facilities and the actual equipment installed in the field. The primary cause of TVA's failure to rate other elements correctly was ineffective asset management, including



ineffective change management controls. Attachments 1 and A include additional facts regarding the violation.

SERC determined that this violation posed a moderate risk and did not pose a serious and substantial risk to the reliability of the bulk power system (BPS). Attachments 1 and A include the facts regarding the violation that SERC considered in its risk assessment. In short, SERC assessed the risk at moderate because in the four substations included in the 2017 Spot Check, TVA updated its Equipment Ratings on 39 out of 57 (68.42%) sampled Facilities to include jumpers and buses. This resulted in changes to the Facility Rating of 11 out of the 57 (19%) Facilities. While there was one instance of a higher derate of 49.4%, the other eight derates ranged from 5.1% to 22.1% of the prior incorrect rating. Additionally, TVA did not exceed the correct Facility Ratings for any of these four substations. Furthermore, during the 2019 Compliance Audit, SERC walked-down two substations, and determined that no Facility Rating changes were required. The decreasing scope and risk of rating discrepancies identified from 2017 to 2019 is indicative of improved performance during that time. No harm is known to have occurred.

While performing under its 2021 mitigation plan, TVA discovered and reported additional occurrences of Facility Rating discrepancies that could result in a serious risk determination. TVA identified, promptly corrected, and communicated these additional occurrences to SERC, which is the desired behavior we commend from entities while performing under a mitigation plan. TVA is continuing to perform a complete walk-down of its entire transmission substations and switching stations over a five-year period, has further committed to correcting additional identified occurrences across its entire system, is communicating at least quarterly with SERC through detailed mitigation reports, and has agreed to meet with SERC staff on a monthly basis to discuss status of mitigation efforts and what they are finding and correcting on their system. Furthermore, TVA's leadership has committed to resolving this issue, evidenced in part by TVA's President and CEO executing the settlement agreement, and is continuing to be actively engaged with SERC throughout this process.

The Entity submitted its Mitigation Plan to address the referenced violation, with an expected completion date of July 1, 2026. Attachments 1 and A include a description of the mitigation activities the Entity agreed to undertake to address this violation. A copy of the Mitigation Plan is included as Attachment D.

The Entity has not yet completed all mitigation activities. Upon completion of the mitigation activities, the Entity will certify its completion of the mitigation activities to SERC, and SERC will verify the Entity's completion of the mitigation activities.



#### Regional Entity's Basis for Penalty

According to the Settlement Agreement, SERC assessed no penalty for the referenced violation. In reaching this determination, SERC considered the following factors:

- 1. The Entity is a federal government entity, and SERC and NERC are bound to follow *Southwestern Power Administration (SWPA) v. Federal Energy Regulatory Commission (FERC)*<sup>5</sup> in resolution of this matter; and
- 2. The Entity agreed to settle the violations.

The Settlement Agreement includes the following non-monetary sanctions:

1. SERC will monitor TVA's progress in completing mitigation for this violation. Specifically, beginning in 2022, each year, SERC will spot check Facility Ratings at Facilities that TVA has completed walking-down as part of mitigation for this violation.

After consideration of the above factors, SERC determined that it would issue no penalty, in accordance with SWPA v. FERC.

Statement Describing the Assessed Penalty, Sanction, or Enforcement Action Imposed<sup>6</sup>

#### **Basis for Determination**

Taking into consideration the Commission's direction in Order No. 693, the NERC Sanction Guidelines and the Commission's July 3, 2008, October 26, 2009 and August 27, 2010 Guidance Orders, NERC Enforcement staff reviewed the applicable requirements of the violations at issue, and considered the factors listed above. NERC Enforcement staff maintains that the resolution between SERC and TVA, including no penalty and the assessed non-monetary sanction, 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.

<sup>&</sup>lt;sup>5</sup> *Id*.

<sup>6</sup> See 18 C.F.R. § 39.7(d)(4).

<sup>&</sup>lt;sup>7</sup> N. Am. Elec. Reliability Corp., "Guidance Order on Reliability Notices of Penalty," 124 FERC ¶ 61,015 (2008); N. Am. Elec. Reliability Corp., "Further Guidance Order on Reliability Notices of Penalty," 129 FERC ¶ 61,069 (2009); N. Am. Elec. Reliability Corp., "Notice of No Further Review and Guidance Order," 132 FERC ¶ 61,182 (2010).



#### 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:

- 1. Settlement Agreement by and between SERC and the Entity executed October 27, 2021, included as Attachment 1;
- 2. Spreadsheet Notice of Penalty spreadsheet, included as Attachment A;
- 3. Record Documents for FAC-008-3 R3:
  - a. SERC Spot-Check report for FAC-008-3 R6 dated June 8, 2017, included as Attachment B;
  - b. SERC Compliance Audit report for FAC-008-3 R3 dated December 5, 2019, included as Attachment C; and
  - c. The Entity's Mitigation Plan designated as SERCMIT014534-1, included as Attachment D.



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

Teresina Stasko\*

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

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#### Conclusion

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

Respectfully submitted,

/s/ Caelyn Palmer

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cc: Tennessee Valley Authority

Attachments

#### **SETTLEMENT AGREEMENT**

#### **BETWEEN**

#### SERC RELIABILITY CORPORATION

#### **AND**

#### TENNESEE VALLEY AUTHORITY<sup>1</sup>

#### I. INTRODUCTION

1. SERC Reliability Corporation (SERC), on behalf of itself and Tennessee Valley Authority (TVA) enter into this Settlement Agreement (Agreement) to resolve Alleged Violations by TVA of the below-referenced Reliability Standard.

Reliability Standard	Requirement	NERC Tracking No.
FAC-008-3	R3	SERC2017017713

2. The Parties stipulate to the facts in this Agreement for the sole purpose of resolving the Alleged Violation. TVA neither admits nor denies that these facts constitute an Alleged Violation of the above-referenced Reliability Standard Requirement. The attached disposition document (**Attachment A**) is incorporated herein in its entirety.

#### II. OVERVIEW OF ENTITY

- 3. TVA is a corporate agency and instrumentality of the United States created by the TVA Act of 1933 with a total generation capacity of 33,526 MW with an additional 3,988 MW of contract generation capacity from Power Purchasing Agreements (PPAs). TVA operates its power system facilities in a vertically integrated manner, providing electric power to 154 Local Power Companies (LPCs) and certain enduse customers, primarily large commercial and industrial loads and federal agencies. TVA has approximately 16,000 miles of transmission line and 69 interconnections with neighboring Balancing Authorities (BAs).
- 4. TVA is registered on the NERC Compliance Registry as a Balancing Authority (BA), Distribution Provider (DP), Generator Owner (GO), Generator Operator (GOP), Planning Authority (PA), Reliability Coordinator (RC), Resource Planner

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<sup>&</sup>lt;sup>1</sup> NERC Registry ID No. NCR01151

(RP), Transmission Owner (TO), Transmission Operator (TOP), Transmission Planner (TP), and Transmission Service Provider (TSP). TVA, in its capacity as a TO, is subject to compliance with FAC-008-3 R3.

#### III. EXECUTIVE SUMMARY

- 5. This Settlement Agreement resolves an Alleged Violation of FAC-008-3 R3.
- 6. SERC determined that this Alleged Violation posed a moderate risk to the Bulk-Power System. TVA's Facility Rating Methodology (FRM) allowed the use of historical Facility Ratings or design ratings leading to inaccurate ratings at TVA Facilities. In 2017, SERC conducted a Spot Check, causing TVA to derate approximately 16% of sampled Facility Ratings. While there was one instance of a higher derate of 49.4%, the other eight derates ranged from 5.1% to 22.1% of the prior incorrect rating. TVA did not exceed the correct Facility Ratings for any of these four substations. In 2019, SERC conducted a Compliance Audit and walked-down two substations: SERC did not discover any Facility Rating changes required. The decreasing scope and risk of rating discrepancies identified from 2017 to 2019 is indicative of improved performance during that time.
- 7. Causes of this violation included TVA's erroneous interpretation of FAC-008 R3 as reflected in its FRM. Specifically, TVA's mistaken belief, and failure to validate, that it could continue to rely on historical Facility Ratings or design ratings until such time TVA updated the ratings to reflect the as-built facilities and the actual equipment installed in the field. Causes also included ineffective asset management, including ineffective change management controls. This noncompliance indicates TVA's need to improve its capabilities and performance in the management practices of verification, validation, and workforce management.
- 8. To mitigate the Alleged Violation, TVA will complete walk-downs of 100% of its transmission substation and switching station Facilities over a five-year period to verify the installed FAC-008 applicable equipment that factors into the determination of Facility Ratings. Therefore, the full extent of condition for the violation will be mitigated by the established mitigation milestone dates.
- 9. TVA executive management agrees with and supports the disposition and resolution of this violation, as evidenced by TVA's commitment to complete full walk-downs of its transmission substations and switching stations over the next five years.
- 10. To further mitigate this violation, TVA will assess the effectiveness of a new change management control it implemented on January 1, 2020. Finally, to enhance the change management control, TVA will develop a new sampling control for implementation beyond the five-year walk-down period.

#### IV. SANCTIONS

- 11. SERC is precluded from assessing a monetary penalty against TVA because TVA is a federal government entity.<sup>2</sup>
- 12. For increased visibility by SERC and TVA executive management, SERC is imposing a non-monetary sanction on TVA: SERC will monitor TVA's progress in completing mitigation for this violation. Specifically, beginning in 2022, each year, SERC will spot check Facility Ratings at Facilities that TVA has completed walking-down as part of mitigation for this violation.

#### V. ADDITIONAL TERMS

- 13. The Parties agree that this Agreement is in the best interest of Bulk Electric System (BES) reliability. The terms and conditions of the Agreement are consistent with the regulations and orders of the Commission and the NERC Rules of Procedure.
- 14. SERC shall report the terms of all settlements of compliance matters to NERC. NERC will review the Agreement for the purpose of evaluating its consistency with other settlements entered into for similar violations or under similar circumstances. Based on this review, NERC will either approve or reject this Agreement. If NERC rejects the Agreement, NERC will provide specific written reasons for such rejection and SERC will attempt to negotiate with TVA a revised settlement agreement that addresses NERC's concerns. If a settlement cannot be reached, the enforcement process will continue to conclusion. If NERC approves the Agreement, NERC will (a) report the approved settlement to the Commission for review and approval by order or operation of law and (b) publicly post the Alleged Violation and the terms provided for in this Agreement.
- 15. This Agreement binds the Parties upon execution, and may only be altered or amended by written agreement executed by the Parties. TVA expressly waives its rights to any hearing or appeal concerning any matter set forth herein, unless and only to the extent that TVA contends that any NERC or Commission action constitutes a material modification to this Agreement.
- 16. SERC reserves all rights to initiate enforcement action against TVA in accordance with the NERC Rules of Procedure in the event that TVA fails to comply with any of the terms or conditions of this Agreement. TVA retains all rights to defend against such action in accordance with the NERC Rules of Procedure.

<sup>&</sup>lt;sup>2</sup> On August 22, 2014, in Southwestern Power Administration (SWPA) v. Federal Energy Regulatory Commission (FERC), the United States Court of Appeals for the District of Columbia rules that FERC and, by extension, the North American Electric Reliability Corporation (NERC) and the Regional Entities it oversees, such as SERC, could not impose monetary penalties against federal government entities. TVA is a federal government entity and SERC is bound to follow SWPA v. FERC in resolution of this matter. Therefore, SERC has assessed no monetary penalty for this violation.

- 17. TVA consents to SERC's future use of this Agreement for the purpose of assessing the factors within the NERC Sanction Guidelines and applicable Commission orders and policy statements, including, but not limited to, the factor evaluating TVA's violation history. Such use may be in any enforcement action or compliance proceeding undertaken by NERC or any Regional Entity or both, provided however that TVA does not consent to the use of the conclusions, determinations, and findings set forth in this Agreement as the sole basis for any other action or proceeding brought by NERC or any Regional Entity or both, nor does TVA consent to the use of this Agreement by any other party in any other action or proceeding.
- 18. TVA affirms that all of the matters set forth in this Agreement are true and correct to the best of its knowledge, information, and belief, and that it understands that SERC enters into this Agreement in express reliance on the representations contained herein, as well as any other representations or information provided by TVA to SERC during any TVA interaction with SERC relating to the subject matter of this Agreement.
- 19. Upon execution of this Agreement, the Parties stipulate that the Possible Violation addressed herein constitutes an Alleged Violation. The Parties further stipulate that all required, applicable information listed in Section 5.3 of the CMEP is included within this Agreement.
- 20. Each of the undersigned agreeing to and accepting this Agreement warrants that he or she is an authorized representative of the party designated below, is authorized to bind such party, and accepts the Agreement on the party's behalf.
- 21. The undersigned agreeing to and accepting this Agreement warrant that they enter into this 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 the Parties has been made to induce the signatories or any other party to enter into this Agreement.
- 22. The Agreement may be signed in counterparts.
- 23. This Agreement is executed in duplicate, each of which so executed shall be deemed to be an original.

#### SIGNATURE PAGE TO FOLLOW<sup>3</sup>

#### REMAINDER OF PAGE INTENTIONALLY LEFT BLANK

<sup>&</sup>lt;sup>3</sup> An electronic version of this executed document shall have the same force and effect as the original.

### Agreed to and accepted by:

Xu Elo	10/27/2021
Jason Blake	Date
President and Chief Executive Officer	
SERC RELIABILTIY CORPORATION	
Marc	
$\psi^{\nu}$	10/19/2021
Jeffrey Lyash	Date
President and Chief Executive Officer	
TENNESSEE VALLEY AUTHORITY	

#### ATTACHMENT A

Filing Date	NOC ID	Region	Registered Entity Name	NCR		Notice of Confirmed Violation or Settlement Agreement	"Admits," "Agrees/Stipul ates," "Neither Admits nor Denies," or "Does Not Contest"	Total Penalty or Sanction (\$)	NERC Violation ID	Reliability Standard	Req.	Risk Assessment Name
2/28/2022	NOC-2754		Tennessee Valley Authority (TVA)	NCR01151	ТО	Settlement	Neither Admits nor Denies	No Penalty	SERC2017017713	FAC-008-3	R3.	Moderate

iolation	Violation Severity Level	Method of Discovery	Discovery Date	Violation Start Date	Violation End Date	Mitigation Completion Date	Date Regional Entity Verified Completion of Mitigation
<b>1edium</b>	Severe	Spot-Check & Compliance Audit	6/8/2017	1/1/2013	present	7/31/2026 (Expected Completion Date)	TBD

#### **Description of Noncompliance**

During a Spot-Check of FAC-008-3 R6 conducted from April 21, 2017 to June 8, 2017, SERC determined that TVA, as a Transmission Owner (TO), was potentially in violation of FAC-008. SERC found that TVA's Facility Rating Methodology (FRM) allowed the use of historical Facility Ratings and design drawings to establish initial Equipment Ratings until TVA updated the Facility Ratings to reflect the as-built configuration. The FRM also did not specify the timing for this update and, as a result, it could occur months or years after installation. The revised version of FAC-008-3, which became mandatory and enforceable on January 1, 2013, precludes this use of historical Facility Ratings or design drawings to establish initial Equipment Ratings. Consequently, TVA is required to verify that its initial Equipment Ratings utilized to establish its Facility Ratings reflect the actual equipment installed in the field. Furthermore, as a result of TVA's failure to update its FRM and its reliance on its historical Facility Ratings and design drawings, TVA's Facility Ratings did not consistently consider the Equipment Ratings that TVA actually installed in the field.

On April 29, 2019, TVA submitted an initial mitigation plan to SERC. This mitigation plan required TVA to, among other things, update its FRM to remove the use of historical Facility Ratings and design drawings. Prior to the December effective date of TVA's new FRM, SERC performed a Compliance Audit from November 18, 2019 through November 22, 2019, and identified 22 additional equipment rating discrepancies that TVA had not yet been able to correct due to the timing and scope of its initial mitigation plan. Specifically, during the 2019 Audit, SERC found additional issues where TVA applied its old problematic FRM because TVA's new FRM didn't become effective December 31 2019. Because the additional rating discrepancies identified in 2019 were in equipment types beyond buses and jumpers, SERC determined that TVA's mitigation activities to verify ratings must be expanded beyond the initial limited scope of buses and jumpers.

On April 19, 2021, TVA submitted an updated mitigation plan to SERC, whereby TVA will conduct walk-downs of 100% of its transmission substation and switching station facilities over a five-year period to verify the installed equipment that factors into the determination of Facility Ratings. TVA will mitigate the full extent of the condition within the approved mitigation plan's established milestone dates.

The root cause of this alleged violation associated with the bus and jumper incorrect ratings was TVA's erroneous interpretation of FAC-008 R3 as reflected in its FRM—specifically, TVA's mistaken belief, and failure to validate, that it could rely on historical Facility Ratings or design drawings until such time TVA updated the ratings to reflect the as-built facilities and the actual equipment installed in the field. The primary cause of TVA's failure to rate other elements correctly was ineffective asset management, including ineffective change management controls. This noncompliance indicates TVA's need to improve its capabilities and performance in the management practices of verification, validation, and workforce management.

This alleged violation began on January 1, 2013, when the Standard became mandatory and enforceable on TVA, and will end on July 31, 2026, the date by which TVA has committed to complete its Mitigation Plan.

#### **Description of the Risk Assessment**

This violation posed a moderate risk and did not pose a serious or substantial risk to the reliability of the bulk power system. TVA's FRM allowed the use of historical Facility Ratings or design drawings leading to inaccurate ratings at TVA Facilities. In the four substations included in the 2017 Spot Check, TVA updated its Equipment Ratings on 39 out of 57 (68.42%) sampled Facilities to include jumpers and buses. This resulted in changes to the Facility Rating of 11 out of the 57 (19%) Facilities. While there was one instance of a higher derate of 49.4%, the other eight derates ranged from 5.1% to 22.1% of the prior incorrect rating. TVA did not exceed the correct Facility Ratings for any of these four substations. No harm is known to have occurred. During the 2019 Compliance Audit, SERC walked-down two substations: SERC did not discover any Facility Rating changes required. The decreasing scope and risk of rating discrepancies identified from 2017 to 2019 is indicative of improved performance during that time.

Although TVA's mitigating activities are not complete, the following additional mitigating factors address the interim risk:

- 1) on December 31, 2019, TVA updated its FRM to remove the use of historical Facility Ratings and design drawings;
- 2) on January 1, 2020, TVA implemented a new change management control whereby as-constructed facility information is to be supplied to Transmission Planning following project completion to ensure that ratings are updated in a more timely manner to reflect field verified conditions. For any work done on existing facilities, Transmission Planning will be informed, by project closure documents or equivalent process, of all material and equipment that was changed; and
- 3) TVA conducted training for employees that enter ratings in the ratings database to ensure that the new FRM and change management control processes are understood.

#### **Description and Status of Mitigation Activity**

To mitigate this violation, TVA will:

1) assess the effectiveness of a new change management control implemented by the TVA TO on January 1, 2020. TVA will conduct an internal assessment to determine the effectiveness of this internal control and to ensure it is being implemented as designed. An assessment plan, including evaluation criteria and type of evidence TVA will use to validate the control's effectiveness, will be provided to SERC. (Due: 6/1/2021.) TVA will provide SERC periodic reports on the TO's change management effectiveness assessments through 2022. (Initial report due: 10/1/2021; Subsequent reports due: 1/31/2022, 7/31/2022, and 1/31/2023.);

2) conduct walk-downs of 100% of its transmission substation and switching station facilities over a 5-year period to verify the installed FAC-008 applicable equipment that factors into the determination of Facility Ratings. Information collected during the walk-downs will be compared with information in the TVA TO's Facility Ratings tools. TVA will identify any incorrect Equipment Ratings or configurations discovered through the process, correct the Equipment Ratings in accordance with its Facility Ratings methodology (FRM), and determine whether a Facility Rating was impacted by the correction. SERC will keep the OEA open for the duration of this 5-year period. Findings discovered during this period as part of this walk-down activity will not result in new self-reports or potential noncompliances, rather they will be held in abeyance under NERC Rules of Procedure, Appendix 4C: Compliance Monitoring and Enforcement Program (CMEP), Section 6.3. However, after TVA has completed this walk-down activity at a given Facility, any subsequent potential non-compliance issues discovered at such Facility will not be held in abeyance. TVA will schedule an average of 20% completion per 12 month interval over the 5-year period. TVA will not be required to make special accommodations (i.e., schedule outages or the use of scaffolding) to verify nameplates or bus-work/jumper size. To verify bus work conductor/jumper size with equipment in service, TVA will utilize a combination of available engineering records and information collected visually during walk-downs. Available technology (e.g., aerial, drones, software, etc.) capable of spatial measuring and equipped with photographic cameras may be employed from electrically safe distances to conduct bus/conductor/jumper measurements. TVA will provide a list of all substations and switching stations planned for walk-downs to SERC. (Due: 5/1/2021.) TVA will provide quarterly status reports to SERC, in a format agreeable to SERC. The reports will include a status update of the total number of substations and switching stations TVA has completed walk-downs for and all findings identified (i.e., any incorrect Equipment Ratings or configurations discovered through the process, the corrected Equipment Ratings, and determination of whether a Facility Rating was impacted by the correction). The reports will be provided within 30 days after the end of each calendar quarter. July 1, 2021 - September 30, 2021 will represent the first quarter. (Initial quarterly report due: 10/30/2021; final quarterly report due: 7/30/2026.); and 3) to enhance the TVA TO's change management controls implemented in January 2020, the TO will develop a new sampling control for implementation beyond the 5-year walk-down period. TVA TO will implement an ongoing control to conduct sampling of substations and switching stations beginning after MP completion to assess the effectiveness of controls in effect. TVA will provide SERC evidence that TVA has documented the control, initiated the control, and provided training to relevant staff on the control by the end of completion of 100% of the facility walk-down. Facility Rating discrepancies identified through the sampling control will be treated as a new Self-Report. (Due: 7/31/2026.)

Other Factors Affecting the Penalty Determination, including Compliance History, Internal Compliance Program and Compliance Culture

SERC reviewed TVA's internal compliance program and considered it to be a neutral factor in determining the disposition.

On August 22, 2014, in Southwestern Power Administration (SWPA) v. Federal Energy Regulatory Commission (FERC), the United States Court of Appeals for the District of Columbia Circuit unanimously ruled that FERC, and by extension, the North American Electric Reliability Corporation (NERC) and the Regional Entities it oversees, such as SERC, could not impose monetary penalties against federal governmental entities such as SWPA. TVA is a federal governmental entity, and SERC is bound to follow SWPA v. FERC in the resolution of this matter. Therefore, SERC has assessed no monetary penalty for this violation.

For increased visibility by SERC and TVA executive management, SERC is imposing a non-monetary sanction on TVA: SERC will monitor TVA's progress in completing mitigation for this violation. Specifically, beginning in 2022, each year, SERC will spot check Facility Ratings at Facilities that TVA has completed walking-down as part of mitigation for this violation. TVA executive management agrees with and supports the disposition and resolution of this violation, as evidenced by TVA's commitment to complete full walk-downs of its transmission substations and switching stations over the next five years.

SERC considered TVA compliance history and determined there were no relevant instances of noncompliance.



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

Prepared By: Joel Rogers								
Submittal D	Submittal Date: 6/8/2017							
-	Compliance Monitoring Method (On-site Audit, Off-site Audit, Spot-Check, or Investigation): On-site Spot-Check							
Registered	Entity: Tenne	ssee Valley Au	thority					
NERC Regis	try ID: NCR01	151						
Nam	Registered Entity Contact Information: Name: Tina Broyles Conerly Email: tibroyles@tva.gov							
Standard: F	AC-008-3							
Requiremen	nt: R6							
Sub Require	ement(s): N	/A						
Function(s)	Applicable to	Possible Viol	ation:					
☐ BA	□ТОР	⊠ то	☐ GO	☐ GOP				
☐ DP	☐ TSP	☐ PA	☐ RP	☐ TP				
RSG	☐ RC							
Date violati	on occurred:	4/21/2017						
Date violati	on discovered	l (Exit Presen	tation Date): 6	/8/2017				
<b>Is the violation still occurring?</b> ⊠ Yes □ No								
Are mitigaticompleted?	Are mitigating activities (including details to prevent reoccurrence) in progress or completed?   No							
If ye	If yes, Provide description of Mitigating Activities: N/A							
Date Mitigating Activities are expected to be completed or were completed: N/A								



Detailed explanation and cause of violation: On April 21, 2017 TVA was notified of a Spot Check on FAC-008-3, R6. The notification letter stated that the Facility Ratings at TVA's Davidson, Maury, Sequoyah, and Widows Creek substations would be reviewed. The Spot check notification letter requested that TVA provide initial data for the Facility Ratings at the identified substations by May 12, 2017. On May 12, TVA uploaded the initial data which included one-line diagrams, Facility Ratings in TVA's FAWG Database as well as summer ratings from EMS. Prior to going on-site, the spot check team reviewed the initial data and found that 40 out of the 57 Facilities in the spot check scope had recent changes in the FAWG Ratings database. No information was provided to the spot check team to explain why the changes had been made. So the spot check team requested an explanation of the changes that occurred after the spot check notification letter went out on April 21, 2017. The spot check team also requested a copy of the FAWG database as of April 21, 2017. During the week of on-site work beginning Monday May 22, the Spot Check team and TVA personnel conducted a walk down of the 4 substations and performed a review of Facility Ratings being used in EMS. The spot check team did not find any discrepancies during the walk downs or EMS review. Also, during the on-site week the Spot Check team began comparing the FAWG database information uploaded on May 12, to the FAWG database information requested from April 21, 2017. The initial review indicated 10 Facility Ratings had changed since April 21, 2017. Upon further review after the week off on-site work an additional Facility Rating change was identified bring the total to 11.

Potential Impact to the Bulk Power System (Minimal, Moderate, or Severe): Severe.

Actual Impact to the Bulk Power System (Minimal, Moderate, or Severe): Moderate

Detailed description of Potential Risk to Bulk Power System: There is a potential for many other Facilities to have incorrect Facility Ratings. The scope of the Spot Check consisted of 57 Facilities. Seventy percent or 40 out of 57 experienced a change to some component within the Facility after the date of the Spot Check notification letter. Of those 40 Facilities that experience some type of equipment rating change, 11 Facility Ratings actually changed due to a change in the most limiting element.

Detailed description of Actual Risk to Bulk Power System: The changes range from 3.4% to 65.6% of the Facility Rating (in MVA). The average change is about 15%. Three of the Facility Ratings changes were 500kV Facilities, one was 230kV and seven were 161kV Facilities.

#### **Additional Comments:**

Please complete the form as completely as possible and email to <a href="mailto:serccomply@serc1.org">serccomply@serc1.org</a>.



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

Prepared By:	Heath Martin	1					
Submittal Da	Submittal Date: 12/05/2019						
-	Compliance Monitoring Method (On-site Audit, Off-site Audit, Spot-Check, or Investigation): On-site Audit						
Registered E	ntity: Tenness	see Valley Au	thority				
NERC Registr	y ID: NCR011	151					
	ntity Contact   : Tracy McCro : tdmccror@t	ory					
Standard: FA	C-008-3						
Requirement	:: R6						
Sub Requirer	nent(s):						
Function(s) A	Applicable to	Possible Viola	ation:				
ВА	□ТОР	⊠ то	⊠ GO	☐ GOP			
☐ DP	☐ TSP	☐ PA	☐ RP	☐ TP			
RSG	☐ RC						
Date violation	n occurred: Si	ince the last a	nudit (exit date	e of the 2017 Spot Check - 6/9/17)			
Date violation discovered (Exit Presentation Date): 12/05/2019							
Is the violation	on still occurr	ring?  Yes	⊠ No				
Are mitigatin completed?		_	ails to prevent	reoccurrence) in progress or			

If yes, Provide description of Mitigating Activities: In all instances, the component that did not have the correct component rating in the Facility Rating was rated for less (3000) than the actual rating of the component (4000). The component values were corrected in the Facility Ratings for each instance of possible noncompliance prior to the



issue being reported to the audit team. In none of the cases did the change in the component rating change the Facility Rating (none of the components in error were or became the most limiting element).

TVA found and corrected the incorrect rating before notifying the Audit Team.

Date Mitigating Activities are expected to be completed or were completed:

Detailed explanation and cause of violation: The audit team selected 29 samples (TVA Sample Request 001- 23 of 254 generation and 6 of 65 transmission Facilities) to determine if TVA established Facility Ratings for the samples Facilities consistent with the TVA Facility Rating Methodology (FRM) as per the Requirement. Two (2) substations were chosen for walk-down (Hiwassee & Center Point), 22 instances were reported by TVA that did not follow the TVA FRM (7% of Facilities). The devices are located in the Hiwassee 500kV substation. The issues were generally associated with not having the correct Rating in the TVA ratings data base. All 22 devices were uprated from 3000 amps to 4000amps."

This was a reduced sample set from normal, because of the ongoing mitigation and settlements for FAC-008-3 R3.

Potential Impact to the Bulk Power System (Minimal, Moderate, or Severe): Severe

Actual Impact to the Bulk Power System (Minimal, Moderate, or Severe): Minimal

Detailed description of Potential Risk to Bulk Power System: If accurate Ratings are not established consistent with the FRM, then Ratings used to operate/plan the system may result in equipment being operated outside the perimeters of TVA FMR that could adversely affect BES operations.

Detailed description of Actual Risk to Bulk Power System: It is not known if the incorrect Ratings resulted in adverse system operations which impacted the reliability of the BES, but since incorrect Ratings were used while operating the system, the actual risk was Moderate at a minimum.

Additional Comments: Start date needs to be clarified - initial estimate is the day following the end date of the 2017 Spot Check (6/9/2017)

Please complete the form as completely as possible and email to serccomply@serc1.org.

#### VIEW FORMAL MITIGATION PLAN: FAC-008-3 (REGION REVIEWING MITIGATION PLAN)

This item was signed by Anthony Taylor (ataylor14@tva.gov) on 4/20/2021

This item was marked ready for signature by Dennis Chastain (dwchastain@tva.gov) on 4/19/2021

×

#### MITIGATION PLAN REVISIONS

Requirement	NERC Violation IDs	Regional Violation Ids	Date Submitted	Status	Туре	Revision Number
FAC-008-3 R3.	SERC2017017713	SERC2017-402715	04/29/2019	Region Accepted MP - Entity Implementing	Formal	
FAC-008-3 R3.	SERC2017017713	SERC2017-402715	04/20/2021	Region reviewing Mitigation Plan	Formal	1

#### 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: Tennessee Valley Authority

Company Address: 1101 Market St. - MR 3H

Chattanooga, Tennessee 37402

Compliance Registry ID: NCR01151

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

Name: Dennis Chastain

#### 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-008-3

Requirement	Regional ID	NERC Violation ID	Date Issue Reported
R3.	SERC2017-402715	SERC2017017713	6/8/2017

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

TVA believed that it was acceptable to use existing ratings until all ratings had been verified.

#### Attachments ()

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

TVA had a 10 year plan to add ratings for buses and jumpers at the time of the spot check. The facilities were designed such that ratings for jumpers and buses would never limit the facility ratings.

Attachments ()

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:

MA #1 – Update Facility Ratings Methodology to remove the use of design ratings. Note: The removal of design criteria will require TVA to update or create additional documentation which results in the extended completion date. 12/31/2019

MA #2 – TVA to complete verification of approximately 455 terminals incorporating as built information in the rating application database, for buses and jumpers. If any errors are discovered, update the database, where existing process will trigger real time updates. Completion date: 9/30/2020. Note: TVA's 10 year plan to verify ratings was originally December 2020 and it has been accelerated to September.

Status report to be provided to SERC within 30 days of each Milestone. Status report will include the number of stations verified, number of element rating changes, and identify if facility ratings were changed.

MA #3 – TVA will conduct training for all employees that enter ratings in the ratings database to ensure that new processes are understood. Complete date – 3 months after FRM finalized

MA #4 – TVA will implement an internal control where an as-constructed facility information will be supplied to Transmission Planning to ensure that ratings are correct. New construction projects will supply Transmission Planning the installed equipment information. For any work done on existing facilities, Transmission Planning will be informed, by project closure documents or equivalent process, of all material/equipment that was changed. Completion date: 12/31/2019

#### Expanded Mitigation (April 2021)

Assess the effectiveness of a new change management control implemented by the TVA TO on January 1, 2020. TVA will conduct an internal assessment to determine the effectiveness of this internal control and to ensure it is being implemented as designed. (see MA #5 and MA #6)

MA #5 - An assessment plan, including evaluation criteria and type of evidence TVA will use to validate the control's effectiveness, will be provided to SERC. Completion date: 6/1/2021

MA #6 - TVA will provide SERC periodic reports on the TO's change management effectiveness assessments through 2022. Completion date: 1/31/2023

Conduct walk-downs of 100% of its transmission substation facilities over a 5-year period to verify the installed FAC-008 applicable equipment that factors into the determination of Facility Ratings. Information collected during the walk-downs will be compared with information in the TVA TO's Facility Ratings tools. TVA will identify any incorrect Equipment Ratings or configurations discovered through the process, correct the Equipment Ratings in accordance with its Facility Ratings methodology (FRM), and determine whether a Facility Rating was impacted by the correction. SERC will keep the OEA open for the duration of this 5-year period. Findings discovered during this period as part of this walk-down activity will not result in new self-reports or potential non-compliances, rather they will be held in abeyance under NERC Rules of Procedure, Appendix 4C: Compliance Monitoring and Enforcement Program (CMEP), Section 6.3. However, after TVA has completed this walk-down activity at a given Facility, any subsequent potential non-compliance issues discovered at such Facility will not be held in abeyance. TVA will schedule an average of 20% completion per 12 month interval over the 5-year period. TVA will not be required to make special accommodations (i.e., schedule outages or the use of scaffolding) to verify nameplates or bus-work/jumper size. To verify bus work conductor/jumper size with equipment in service, TVA will utilize a combination of available engineering records and information collected visually during walk-downs. Available technology (e.g., aerial, drones, software, etc.) capable of spatial measuring and equipped with photographic cameras may be employed from electrically safe distances to conduct bus/conductor/jumper measurements. (see MA #7 and MA #8)

MA #7 - TVA will provide a list of all substations planned for walk-downs to SERC. Completion date: 5/1/2021

MA #8 - TVA will provide quarterly status reports to SERC, in a format agreeable to SERC. The reports will include a status update of the total number of substations TVA has completed walk-downs for and all findings identified (i.e., any incorrect Equipment Ratings or configurations discovered through the process, the corrected Equipment Ratings, and determination of whether a Facility Rating was impacted by the correction). The reports will be provided within 30 days after the end of each calendar quarter. July 1, 2021 - September 30, 2021 will represent the first quarter. (Initial quarterly report due: 10/30/2021; final quarterly report due: 7/30/2026)

To enhance the TVA TO's change management controls implemented in January 2020, the TO will develop a new sampling control for implementation beyond the 5-year walk-down period. (see MA #9)

MA #9 - TVA TO will implement an ongoing control to conduct sampling of substations beginning after MP completion to assess the effectiveness of controls in effect. TVA will provide SERC evidence that TVA has documented the control, initiated the control, and provided training to relevant staff on the control by the end of completion of 100% of the facility walk-down. Facility Rating discrepancies identified through the sampling control will be treated as a new Self-Report. Completion date: 7/31/2026

#### 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:

7/31/2026

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

#### Mitigating Activity 7

Milestone Pending (Due: 5/1/2021)

Provide list of substations planned for walk downs to SERC.

#### Mitigating Activity 5

Milestone Pending (Due: 6/1/2021)

Provide controls effectiveness assessment plan to SERC.

#### Mitigating Activity 6, Milestone 1

Milestone Pending (Due: 9/1/2021)

Provide SERC periodic report on the TO's change management effectiveness assessment.

#### Mitigating Activity 8, Milestone 1

Milestone Pending (Due: 10/30/2021)

Provide quarterly status report on walk downs.

#### Mitigating Activity 8, Milestone 2

Milestone Pending (Due: 1/30/2022)

Provide quarterly status report on walk downs.

#### Mitigating Activity 6, Milestone 2

Milestone Pending (Due: 1/31/2022)

Provide SERC periodic report on the TO's change management effectiveness assessment.

#### Mitigating Activity 8, Milestone 3

Milestone Pending (Due: 4/30/2022)

Provide quarterly status report on walk downs.

#### Mitigating Activity 8, Milestone 4

Milestone Pending (Due: 7/30/2022)

Provide quarterly status report on walk downs.

#### Mitigating Activity 6, Milestone 3

Milestone Pending (Due: 7/31/2022)

Provide SERC periodic report on the TO's change management effectiveness assessment.

#### Mitigating Activity 8, Milestone 5

Milestone Pending (Due: 10/30/2022)

Provide quarterly status report on walk downs.

#### Mitigating Activity 8, Milestone 6

Milestone Pending (Due: 1/30/2023)

Provide quarterly status report on walk downs.

#### Mitigating Activity 6, Milestone 4

Milestone Pending (Due: 1/31/2023)

Provide SERC periodic report on the TO's change management effectiveness assessment.

#### Mitigating Activity 8, Milestone 7

Milestone Pending (Due: 4/30/2023)

Provide quarterly status report on walk downs.

#### Mitigating Activity 8, Milestone 8

Milestone Pending (Due: 7/30/2023)

Provide quarterly status report on walk downs.

#### Mitigating Activity 8, Milestone 9

Milestone Pending (Due: 10/30/2023)

Provide quarterly status report on walk downs.

#### Mitigating Activity 8, Milestone 10

Milestone Pending (Due: 1/30/2024)

Provide quarterly status report on walk downs.

#### Mitigating Activity 8, Milestone 11

Milestone Pending (Due: 4/30/2024)

Provide quarterly status report on walk downs.

#### Mitigating Activity 8, Milestone 12

Milestone Pending (Due: 7/30/2024)

Provide quarterly status report on walk downs.

#### Mitigating Activity 8, Milestone 13

Milestone Pending (Due: 10/30/2024)

Provide quarterly status report on walk downs.

#### Mitigating Activity 8, Milestone 14

Milestone Pending (Due: 1/30/2025)

Provide quarterly status report on walk downs.

#### Mitigating Activity 8, Milestone 15

Milestone Pending (Due: 4/30/2025)

Provide quarterly status report on walk downs.

#### Mitigating Activity 8, Milestone 16

Milestone Pending (Due: 7/30/2025)

Provide quarterly status report on walk downs.

#### Mitigating Activity 8, Milestone 17

Milestone Pending (Due: 10/30/2025)

Provide quarterly status report on walk downs.

#### Mitigating Activity 8, Milestone 18

Milestone Pending (Due: 1/30/2026)

Provide quarterly status report on walk downs.

#### Mitigating Activity 8, Milestone 19

Milestone Pending (Due: 4/30/2026)

Provide quarterly status report on walk downs.

#### Mitigating Activity 8, Milestone 20

Milestone Pending (Due: 7/30/2026)

Provide quarterly status report on walk downs.

#### Mitigating Activity 9

Milestone Pending (Due: 7/31/2026)

TVA to provide SERC evidence that TVA has documented the new sampling control, initiated the control, and provided training to relevant staff on the control.

#### 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):

There will be no additional risk to the BPS. The ratings being verified will never be a limiting facility for a circuit.

#### 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):

Completion of the plan will verify that there are no new limiting elements.

#### 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 Anthony Taylor of Tennessee Valley Authority
  - I am qualified to sign this Mitigation Plan on behalf of Tennessee Valley Authority
  - I understand Tennessee Valley Authority'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 Appendixe 4 (Compliance Monitoring and Enforcement Program of the North American Electric Reliability Corporation (NERC CMEP))
  - $\bullet\hspace{0.4cm}$  I have read and am familiar with the contents of this Mitigation Plan
  - Tennessee Valley Authority 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)