

October 28, 2021

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 Ohio Valley Electric Corporation,
FERC Docket No. NP22-_-000**

Dear Ms. Bose:

The North American Electric Reliability Corporation (NERC) hereby provides this Notice of Penalty¹ regarding Ohio Valley Electric Corporation (OVEC), and referred to herein as the Entity, NERC Registry ID# NCR00857,² 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)).³

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

According to the Settlement Agreement, OVEC neither admits nor denies the violations, but has agreed to the assessed penalty of three hundred thousand dollars (\$300,000).

¹ *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).*

² OVEC was included on the NERC Compliance Registry as a Generator Owner (GO) and Generator Operator (GOP) on May 30, 2007, and was included as a Transmission Owner (TO) from May 30, 2007 to December 1, 2018.

³ See 18 C.F.R § 39.7(c)(2) and 18 C.F.R § 39.7(d).

⁴ 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.

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Statement of Findings Underlying the Violations

This Notice of Penalty incorporates the findings and justifications set forth in the Settlement Agreement, by and between RF and OVEC. The details of the findings and basis for the 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	Risk	Penalty Amount
RFC2018020403	FAC-003-4	R2	High/ Severe	TO	SR 9/6/18	09/04/18 to 09/04/18	Serious	\$300k
RFC2019022260	FAC-003-4	R6	Medium/ Severe	TO	CA 9/25/18	01/01/19 to 09/27/19	Serious	

Information About the Entity

OVEC and its wholly-owned subsidiary, Indiana-Kentucky Electric Corporation (IKEC), were organized on October 1, 1952 for the purpose of providing the large electric power requirements projected for the uranium enrichment facilities then under construction by the Atomic Energy Commission near Portsmouth, Ohio. A total of eight power companies (together with their affiliates) own OVEC, and the largest owner of OVEC is American Electric Power Company, Inc. (AEP), which owns approximately 43% of OVEC. OVEC furnishes electric service in the Ohio River Valley area. OVEC’s Kyger Creek Plant at Cheshire, Ohio and IKEC’s Clifty Creek Plant at Madison, Indiana, have generating capacities of 1,086 MW and 1,303 MW, respectively. These two generating stations are connected by a network of 705 circuit miles of 345kV transmission lines. These lines also interconnect with the major power transmission networks of several utilities serving the area.

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FAC-003-4 R2

RF determined that the Entity did not identify a tree growing in close proximity to a 345 kV transmission line, resulting in a vegetation contact when the A phase conductor sagged into a 30 foot tall cedar tree. This vegetation contact tripped the line out of service for 4 hours and 30 minutes. Attachment 1 includes additional facts regarding the violation.

The cause of this violation was ineffective vegetation inspections, and ineffective management and clearing activities.

RF determined that this violation posed a serious and substantial risk to the reliability of the bulk power system (BPS). Attachment 1 includes the facts regarding the violation that RF considered in its risk assessment.

OVEC submitted its Mitigation Plan to address the referenced violation. Attachment 1 includes a description of the mitigation activities OVEC took to address this violation. A copy of the Mitigation Plan is included as Attachment B.

OVEC certified that it had completed all mitigation activities. RF verified that OVEC had completed all mitigation activities. Attachments 1 and D provide specific information on RF's verification of OVEC's completion of the activities.

FAC-003-4 R6

RF determined that the Entity did not complete 100% of its Right of Way (ROW) inspections for vegetation in 2018, including for the area where the FAC-003-4 R2 violation occurred. Attachment 1 includes additional facts regarding the violation.

The cause of this violation was ineffective planning combined with ineffective contractor management to ensure that the vegetation inspections were completed on time.

RF determined that this violation posed a serious and substantial risk to the reliability of the bulk power system (BPS). Attachment 1 includes the facts regarding the violation that RF considered in its risk assessment.

OVEC submitted its Mitigation Plan to address the referenced violation. Attachment 1 includes a description of the mitigation activities OVEC took to address this violation. A copy of the Mitigation Plan is included as Attachment F.

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OVEC certified that it had completed all mitigation activities. RF verified that OVEC had completed all mitigation activities. Attachments 1 and H provide specific information on RF's verification of OVEC's completion of the activities.

Regional Entity's Basis for Penalty

According to the Settlement Agreement, RF has assessed a penalty of three hundred thousand dollars (\$300,000) for the referenced violations. In reaching this determination, RF considered the following factors:

1. The violations of FAC-003-4 R2 and FAC-003-4 R6 posed a serious and substantial risk to the reliability of the BPS, as discussed in Attachment 1; and
2. There were no other mitigating or aggravating factors or extenuating circumstances that would affect the assessed penalty.

After consideration of the above factors, RF determined that, in this instance, the penalty amount of three hundred thousand dollars (\$300,000) is appropriate and bears a reasonable relation to the seriousness and duration of the violations.

Statement Describing the Assessed Penalty, Sanction, or Enforcement Action Imposed⁵

Basis for Determination

Taking into consideration the Commission's direction in Order No. 693, the NERC Sanction Guidelines and the Commission's July 3, 2008, October 26, 2009 and August 27, 2010 Guidance Orders,⁶ NERC Enforcement staff reviewed the applicable requirements of the Commission-approved Reliability Standards and the underlying facts and circumstances of the violations at issue, and considered the factors listed above.

For the foregoing reasons, the NERC Enforcement staff approved the resolution between RF and OVEC and believes that the assessed penalty of three hundred thousand dollars (\$300,000) is appropriate for

⁵ See 18 C.F.R. § 39.7(d)(4).

⁶ *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).*

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the violations and circumstances at issue, and is consistent with NERC's goal to promote and ensure reliability of the BPS.

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

Attachments to be Included as Part of this Notice of Penalty

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

1. Settlement Agreement by and between RF and OVEC executed August 24, 2021, included as Attachment 1;
2. Record Documents for FAC-003-4 R2
 - a. OVEC's Self Report dated September 6, 2018, included as Attachment A to the Settlement Agreement;
 - b. OVEC's Mitigation Plan designated as RFCMIT014860-1 submitted March 9, 2020, included as Attachment B to the Settlement Agreement;;
 - c. Certification of Mitigation Plan Completion for FAC-003-4 R2 submitted May 13, 2020, included as Attachment C to the Settlement Agreement;
 - d. RF's Verification of Mitigation Plan Completion dated August 10, 2020, included as Attachment D to the Settlement Agreement.
3. Record Documents for FAC-003-4 R6
 - a. OVEC's Violation Discovery Record dated September 24, 2019, included as Attachment E to the Settlement Agreement;
 - b. OVEC's Mitigation Plan designated as RFCMIT014859-1 submitted March 9, 2020, included as Attachment F to the Settlement Agreement;
 - c. Certification of Mitigation Plan Completion submitted May 26, 2020, included as Attachment G to the Settlement Agreement; and
 - d. RF's Verification of Mitigation Plan Completion dated April 20, 2021, included as Attachment H to the Settlement Agreement.

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

<p>*Persons to be included on the Commission’s service list are indicated with an asterisk. NERC requests waiver of the Commission’s rules and regulations to permit the inclusion of more than two people on the service list.</p> <p>Niki Schaefer* Vice President & General Counsel 216-503-0611 niki.schaefer@rfirst.org</p> <p>Kristen M. Senk* Director, Legal & Enforcement 216-503-0669 kristen.senk@rfirst.org</p> <p>Thomas L. Scanlon* Managing Enforcement Counsel 216-503-0658 tom.scanlon@rfirst.org</p> <p>Maxwell Reisinger* Senior Counsel 216-503-0664 maxwell.reisinger@rfirst.org</p> <p>ReliabilityFirst Corporation 3 Summit Park Drive, Suite 600 Cleveland, OH 44131</p>	<p>Teresina Stasko* Assistant General Counsel and Director of Enforcement North American Electric Reliability Corporation 1325 G Street NW, Suite 600 Washington, DC 20005 (202) 400-3000 (202) 644-8099 – facsimile teresina.stasko@nerc.net</p> <p>James McGrane* Senior Counsel North American Electric Reliability Corporation 1325 G Street NW, Suite 600 Washington, DC 20005 (202) 400-3000 (202) 644-8099 – facsimile james.mcgrane@nerc.net</p> <p>Caelyn Palmer* Associate Counsel North American Electric Reliability Corporation 1325 G Street NW, Suite 600 Washington, DC 20005 (202) 400-3000 (202) 644-8099 – facsimile caelyn.palmer@nerc.net</p>
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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: The Entity
ReliabilityFirst Corporation

Attachments

Attachment 1
Settlement Agreement by and between RF and OVEC
executed August 24, 2021



RELIABILITY FIRST

<i>In re:</i> OHIO VALLEY ELECTRIC CORPORATION)	Violation ID Nos.:
)	
)	RFC2018020403 (FAC-003-4 R2)
NERC Registry ID No. NCR00857)	RFC2019022260 (FAC-003-4 R6)
)	

**SETTLEMENT AGREEMENT
BETWEEN
RELIABILITYFIRST CORPORATION
AND
OHIO VALLEY ELECTRIC CORPORATION**

I. INTRODUCTION

1. ReliabilityFirst Corporation (“ReliabilityFirst”) and Ohio Valley Electric Corporation (“OVEC”) (collectively, the “Parties”) enter into this Settlement Agreement (“Agreement”) to resolve violations¹ by OVEC of FAC-003-4 R2 and FAC-003-4 R6.²
2. The Parties stipulate to the facts in this Agreement for the sole purpose of resolving the violations. OVEC neither admits nor denies that these facts constitute violations of the above-captioned Reliability Standard Requirements. The facts stipulated herein are stipulated solely for the purpose of resolving, between OVEC and ReliabilityFirst, the matters discussed herein and do not constitute stipulations or admissions for any other purpose.

II. OVERVIEW OF OVEC

3. OVEC and its wholly-owned subsidiary, Indiana-Kentucky Electric Corporation (“IKEC”), were organized on October 1, 1952 for the purpose of providing the large electric power requirements projected for the uranium enrichment facilities then under construction by the Atomic Energy Commission near Portsmouth, Ohio. A

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

² This Agreement references the version of the Reliability Standard in effect at the time each violation began. OVEC, however, committed to perform mitigating actions to comply with the most recent version of each Reliability Standard Requirement.

total of eight power companies (together with their affiliates) own OVEC, and the largest owner of OVEC is American Electric Power Company, Inc. (“AEP”), which owns approximately 43% of OVEC. OVEC furnishes electric service in the Ohio River Valley area. OVEC’s Kyger Creek Plant at Cheshire, Ohio and IKEC’s Clifty Creek Plant at Madison, Indiana, have generating capacities of 1,086 megawatts (“MW”) and 1,303 MW, respectively. These two generating stations are connected by a network of 705 circuit miles of 345 kilovolt (“kV”) transmission lines. These lines also interconnect with the major power transmission networks of several utilities serving the area.

4. OVEC is registered on the NERC Compliance Registry as a Generator Owner, Generator Operator, and Transmission Owner (“TO”) in the ReliabilityFirst region. OVEC was registered on the NERC Compliance Registry as a Transmission Operator from May 30, 2007 until December 1, 2018. OVEC, in its capacity as a TO, is subject to compliance with FAC-003-4 R2 and FAC-003-4 R6.

III. EXECUTIVE SUMMARY

5. This Settlement Agreement resolves two separate violations, one of FAC-003-4 R2 and one of FAC-003-4 R6. First, on September 4, 2018, OVEC experienced a vegetation contact that tripped a 345 kV Transmission Line out of service for 4 hours and 30 minutes. OVEC self-reported this violation. Second, during a Compliance Audit in 2019, ReliabilityFirst discovered that OVEC did not complete 100% of its Right of Way (“ROW”) inspections for vegetation in 2018. The vegetation contact in the first violation occurred in the area where OVEC did not complete its Vegetation Inspections in 2018.
6. The root cause of the first violation is ineffective prior (a) Vegetation Inspections and (b) management and clearing activities. The tree that caused the vegetation contact grows very slowly and this tree should have been identified as needing clearing during earlier OVEC Vegetation Inspections. The root cause of the second violation is ineffective planning combined with ineffective contractor management to ensure the Vegetation Inspections were completed on time.
7. To mitigate both violations, OVEC performed detailed inspections on all OVEC transmission lines for vegetation conditions, performed a root cause analysis, hired an outside source to review and advise as to the completeness of OVEC’s Transmission Vegetation Management Program (“TVMP”) and to benchmark against industry practices, and revised its TVMP to address the current version of FAC-003 and to incorporate industry best practices.
8. Considering the foregoing and below, ReliabilityFirst has determined that the risk posed by both violations is serious and substantial and has levied a \$300,000 monetary penalty.

IV. VIOLATIONS

A. FAC-003-4 R2 (RFC2018020403)

9. FAC-003 ensures a Responsible Entity prevents outages from vegetation located on transmission ROW, minimizes outages from vegetation located adjacent to ROW, maintains clearances between transmission lines and vegetation on and along transmission ROW, and reports vegetation related outages of the transmission systems.
10. A violation of FAC-003 R2 has the potential to affect the reliable operation of the Bulk Power System by increasing the likelihood that Registered Entities will not maintain safe clearances between transmission lines and vegetation.
11. FAC-003-4 R2 states:
 - R2.** Each applicable Transmission Owner and applicable Generator Owner shall manage vegetation to prevent encroachments into the Minimum Vegetation Clearance Distance (“MVCD”) of its applicable line(s) which are not either an element of an IROL, or an element of a Major WECC Transfer Path; operating within its Rating and all Rated Electrical Operating Conditions of the types shown below:
 - 2.4.** An encroachment due to vegetation growth into the line MVCD that caused a vegetation-related Sustained Outage.

Description of Violation and Risk Assessment

12. On September 6, 2018, the entity submitted a Self-Report to ReliabilityFirst stating that, as a TO, it was in violation of FAC-003-4 R2. *See*, Self-Report, **Attachment A**.
13. On September 4, 2018, OVEC experienced a vegetation contact (cedar tree into transmission line) from inside the ROW on its Clifty Creek – Pierce #2 345 kV Circuit. OVEC separately notified ReliabilityFirst of this vegetation contact by submitting this as a Category 1B Outage via ReliabilityFirst’s FAC-003-4 RF Quarterly Transmission Vegetation Management and 48-Hour Reporting Form on September 6, 2018.
14. More specifically, on September 4, 2018 at 2:12 PM the Clifty-Pierce #2 circuit tripped and locked out of service due to the vegetation contact. After the vegetation contact, the circuit attempted to reclose three times as designed, but did not do so successfully. OVEC’s operations center immediately notified the transmission department via telephone and the relay engineer was immediately made aware of the circuit lockout. OVEC performed a review of the relay targets and determined that an A phase to ground initiated the circuit trip. OVEC found the cause of the fault in the span between towers 234 and 235 and determined that the A phase conductor had sagged into a cedar tree of approximately 30’ in height located at

mid-span. The temperature at the time of breaker trip was 97 degrees Fahrenheit, humidity was extreme and circuit load was 46% of the transmission line's summer normal rating.

15. OVEC identified the tree at issue and cut the tree at 5:35 PM on September 4, 2018. On September 4, 2018, at 6:42 PM, OVEC reenergized the transmission line and brought it back into service.
16. OVEC had performed a partial patrol of the circuits at issue on June 5, 2018 to identify any possible vegetation encroachments. In 2017, OVEC had identified that some vegetation clearing work needed to be completed inside the span at issue (between towers 234 and 235) and included that span for clearing in a work scope created in February 2018. But, OVEC failed to clear the span, including the cedar tree at issue, before the vegetation contact occurred on September 4, 2018.³
17. This violation involves the management practices of work management, external interdependencies, and planning. The root causes of the violation were ineffective (a) prior inspections and (b) vegetation management and clearing activities.
18. The violation began on September 4, 2018 at 2:12 PM when the vegetation contact occurred and the Clifty-Pierce #2 circuit tripped and locked out of service, and ended on September 4, 2018 at 6:42 PM, when OVEC brought the transmission line at issue back into service.
19. This violation posed a serious risk to the reliability of the bulk power system based on the following factors.⁴ This violation involved a 345 kV transmission line that tripped out of service for 4 hours and 30 minutes. The risk posed by this violation is overloading of other nearby transmission lines, which could result in loss of load and potentially a cascading outage. However, the operating characteristics and design of OVEC's 345 kV transmission system limited the likelihood that this violation would cause instability, uncontrolled separation, or cascading system failures. Finally, PJM continuously monitors System Operating Limit ("SOL") exceedances on adjacent lines and did not observe any adjacent facility exceedances as a result of this event. In this case, load was redistributed and no load loss occurred.⁵ The 345 kV transmission line affected is not an element of an Interconnection Reliability Operating Limit ("IROL"). Despite this, the risk posed by this violation remains serious because this violation evidences ineffective prior vegetation inspections and management and clearing activities as the cedar tree that caused the vegetation contact grows very slowly, and this tree should have been identified and cleared in advance of the vegetation contact at issue.

³ Vegetation in the span was cleared in October of 2018, which was after the contact occurred.

⁴ FAC-003-4 R2 has a VRF of "High" pursuant to the VRF Matrix. According to the VSL Matrix, this issue warranted a "Severe" VSL.

⁵ The line was lightly loaded at the time of the violation (46% of the transmission line's summer normal rating), which allowed the voltage to be redistributed to other transmission lines with no overloads or customer loss.

Mitigating Actions

20. On March 9, 2020, OVEC submitted to ReliabilityFirst a Mitigation Plan to address the violation of FAC-003-4 R2. *See* RFCMIT014860-1, **Attachment B**. On March 18, 2020, ReliabilityFirst accepted the Mitigation Plan.
21. In the Mitigation Plan, OVEC committed to take the following actions by December 2, 2019: First, OVEC hired a qualified helicopter contractor to perform detailed transmission line inspections on all OVEC-IKEC circuits for vegetation conditions. OVEC inspected all entity circuits for vegetation encroachments and provided a detailed report to include flight logs, and location and description of problem areas. OVEC also performed a root cause analysis to determine the root cause of the violation and to ensure that those causes have been addressed and corrected. Second, OVEC formalized "Vegetation Management Schedule and Results" documentation to include versions, dates, and signatures of personnel that completed the sheet. This will be housed and tracked within OVEC's database. OVEC revised its TVMP to incorporate all aspects of FAC-003-4. OVEC also hired an outside source to review and advise as to the completeness of OVEC's TVMP document and plan and to benchmark against industry practices. Third, OVEC revised its TVMP to address the latest version of the FAC-003 Standard and to address the quality of inspections and documentation of said inspections. OVEC will perform a quarterly review of the FAC-003 Standards and Requirements to ensure that OVEC uses the most recent revisions in its TVMP documentation. OVEC completely replaced its TVMP after an outside source reviewed and advised as to the completeness of OVEC's TVMP document and plan and benchmarked OVEC's TVMP against industry practices. The new TVMP has more controls in place to ensure that Vegetation Inspections and the necessary follow-up vegetation clearing are always properly completed. More specifically, the new TVMP is much more prescriptive in terms of how to conduct an inspection and how to ensure contractors' work is thorough and complete.
22. On May 13, 2020, the entity certified to ReliabilityFirst that it completed this Mitigation Plan as of May 12, 2020. *See* Certification of Mitigation Plan Completion, **Attachment C**. On August 10, 2020, ReliabilityFirst verified the entity completed the Mitigation Plan on March 31, 2020. *See* Mitigation Plan Verification for RFCMIT014860-1, **Attachment D**.

B. FAC-003-4 R6 (RFC2019022260)

23. FAC-003 improves the reliability of the Bulk-Power System by preventing outages from vegetation located on transmission ROW and minimizing outages from vegetation located adjacent to ROW, maintain clearances between transmission lines and vegetation on and along transmission ROW, and ensuring Registered Entities report vegetation-related outages of the transmission system.
24. A violation of FAC-003 R6 has the potential to affect the reliable operation of the Bulk Electric System by ensuring that Registered Entities manage the vegetation in

transmission line rights-of-way to prevent vegetation contacts.

25. FAC-003-4 R6 states:

R6. Each applicable Transmission Owner and applicable Generator Owner shall perform a Vegetation Inspection of 100% of its applicable transmission lines (measured in units of choice - circuit, pole line, line miles or kilometers, etc.) at least once per calendar year and with no more than 18 calendar months between inspections on the same ROW.

Description of Violation and Risk Assessment

26. On September 25, 2019, ReliabilityFirst determined that the entity, as a TO, was in violation of FAC-003-4 R6 identified during a Compliance Audit conducted from August 19, 2019 through September 18, 2019. *See* Violation-Discovery Record, **Attachment E**.
27. FAC-003-4 R6 requires OVEC to perform a Vegetation Inspection of 100% of its applicable transmission lines at least once per calendar year. To meet this requirement, per OVEC's TVMP, OVEC conducts aerial patrols "to identify areas of the transmission system where remediation may be needed to prevent vegetation from interfering with circuit operation except where the FAA or other ordinance prohibits flight. Ground patrols are used to supplement aerial patrols and where aerial patrols are restricted. Aerial and ground patrol inspections aid in the development of the vegetation maintenance work plan" and "OVEC performs tri-annual inspections on 100% of all transmission facilities subject to this program document."
28. During a Compliance Audit, ReliabilityFirst determined that OVEC did not complete 100% of its ROW inspections for vegetation in 2018. OVEC only partially completed these inspections because a helicopter crash occurred during the inspections, and the entity was unable to timely reschedule and complete inspections of the remaining lines by the annual deadline. More specifically, the helicopter crash occurred on June 5, 2018 after OVEC had completed approximately 90% of its ROW inspections. Following the helicopter crash, OVEC rescheduled the remaining 10% of its ROW inspections to begin on October 8, 2018 with another contractor. However, prior to the rescheduled inspections, on September 4, 2018, there was a vegetation contact in the area where the entity had not yet completed the inspections.⁶ The entity removed the vegetation in that area following the contact, but the new contractor was unable to complete remaining ROW inspections by the end of 2018 because a hurricane damaged its helicopter hangar.
29. This violation involves the management practices of work management, external interdependencies, and planning. A contributing cause of this violation was that

⁶ See above description for RFC2018020403.

OVEC did not complete its annual Vegetation Inspections because the helicopter performing the inspections in 2018 crashed before completing all of the inspections. Due to that helicopter crash, the original contractor was unable to complete the rest of the inspections in 2018. OVEC then needed to vet and secure another helicopter contractor to complete the rest of the inspections by the end of 2018. The new contractor that OVEC hired was unable to complete the rest of the inspections by the end of 2018 because a hurricane damaged its helicopter hangar. The root cause of this violation is ineffective planning combined with ineffective contractor management to ensure the Vegetation Inspections were completed on time.

30. The violation began on January 1, 2019, the date OVEC was required to have completed Vegetation Inspections on 100% of its applicable transmission lines.⁷ The violation ended on September 27, 2019, the date OVEC completed the overdue Vegetation Inspections.
31. This violation posed a serious risk to the reliability of the bulk power system based on the following factors.⁸ The risk posed by not performing required Vegetation Inspections is the failure to identify potential vegetation encroachments or actual vegetation encroachments into the MVCD. On September 4, 2018, OVEC experienced an outage of the Clifty-Pierce No. 2 345 kV transmission line and the location of that outage was part of the same 10% that OVEC did not patrol and complete when conducting its 2018 annual Vegetation Inspections. Although OVEC timely completed 90% of its annual Vegetation Inspections in 2018 and 100% of its annual Vegetation Inspections in 2017 and 2019, the risk posed by this violation remains serious because this violation evidences ineffective planning combined with ineffective contractor management to ensure the Vegetation Inspections were completed on time.

Mitigating Actions

32. On March 9, 2020, the entity submitted to ReliabilityFirst a Mitigation Plan to address the violation of FAC-003-4 R6. *See* RFCMIT014859-1, **Attachment F**. On March 18, 2020, ReliabilityFirst accepted the Mitigation Plan.

⁷ OVEC confirmed that it last completed all Vegetation Inspections on all of its ROWs on June 7, 2017.

⁸ FAC-003-4 R6 has a VRF of “Medium” pursuant to the VRF Matrix. According to the VSL Matrix, this issue warranted a “Severe” VSL.

33. In the Mitigation Plan, OVEC committed to take the following actions by December 2, 2019: First, OVEC hired a qualified helicopter contractor to perform transmission line detailed inspections on all OVEC-IKEC circuits for vegetation conditions. OVEC inspected all entity circuits for vegetation encroachments and provided a detailed report to include flight logs, and location and description of problem areas. OVEC also performed a root cause analysis to determine the root cause of the violation and to ensure that those causes have been addressed and corrected. Second, OVEC formalized "Vegetation Management Schedule and Results" documentation to include versions, dates, and signatures of personnel that completed the sheet. This will be housed and tracked within OVEC's database. OVEC revised its TVMP to incorporate all aspects of FAC-003-4. OVEC also hired an outside source to review and advise as to the completeness of OVEC's TVMP document and plan and to benchmark against industry practices. Third, OVEC revised the entity TVMP to address the latest version of the FAC-003 Standard and to address inspections and documentation of said inspections. OVEC will perform a quarterly review of the FAC-003 Standards and Requirements to ensure that OVEC uses the most recent revisions in its TVMP documentation.
34. On May 26, 2020, the entity certified to ReliabilityFirst that it completed this Mitigation Plan as of May 26, 2020. *See* Certification of Mitigation Plan Completion, **Attachment G**. On April 20, 2021, ReliabilityFirst verified the entity completed the Mitigation Plan on November 30, 2020. *See* Mitigation Plan Verification for RFCMIT014859-1, **Attachment H**.

V. ADJUSTMENT FACTORS

35. In addition to the facts and circumstances stated above, ReliabilityFirst considered the following factors in its penalty determination.

Compliance History

36. When assessing the penalty for the violation at issue in this Agreement, ReliabilityFirst considered whether the facts of this violation constitute repetitive infractions. ReliabilityFirst considered the entity's compliance history and determined there were no relevant instances of noncompliance.

VI. PENALTY

37. Based upon the foregoing, OVEC shall pay a monetary penalty of \$300,000 to ReliabilityFirst.
38. ReliabilityFirst shall present an invoice to OVEC within 20 days after the Agreement is approved by the Commission or affirmed by operation of law. Upon receipt, OVEC shall have 30 days to remit payment. ReliabilityFirst will notify NERC if it does not timely receive the payment from OVEC.

39. If OVEC fails to timely remit the monetary penalty payment to ReliabilityFirst, interest will commence to accrue on the outstanding balance, pursuant to 18 C.F.R. § 35.19a (a)(2)(iii), on the earlier of (a) the 31st day after the date on the invoice issued by ReliabilityFirst to OVEC for the monetary penalty payment or (b) the 51st day after the Agreement is approved by the Commission or operation of law.

VII. ADDITIONAL TERMS

40. The Parties agree that this Agreement is in the best interest of 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.
41. ReliabilityFirst 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 ReliabilityFirst will attempt to negotiate with OVEC 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 violations and the terms provided for in this Agreement.
42. This Agreement binds the Parties upon execution, and may only be altered or amended by written agreement executed by the Parties. OVEC expressly waives its right to any hearing or appeal concerning any matter set forth herein, unless and only to the extent that OVEC contends that any NERC or Commission action constitutes a material modification to this Agreement.
43. ReliabilityFirst reserves all rights to initiate enforcement action against OVEC in accordance with the NERC Rules of Procedure in the event that OVEC fails to comply with any of the terms or conditions of this Agreement. OVEC retains all rights to defend against such action in accordance with the NERC Rules of Procedure.
44. OVEC consents to ReliabilityFirst'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 OVEC's history of violations. Such use may be in any enforcement action or compliance proceeding undertaken by NERC or any Regional Entity or both, provided however that OVEC 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 OVEC consent to the use of this Agreement by any other party in any other action or proceeding.

45. OVEC 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 ReliabilityFirst enters into this Agreement in express reliance on the representations contained herein, as well as any other representations or information provided by OVEC to ReliabilityFirst during any OVEC interaction with ReliabilityFirst relating to the subject matter of this Agreement.
46. Upon execution of this Agreement, the Parties stipulate that each Possible violation addressed herein constitutes a violation. The Parties further stipulate that all required, applicable information listed in Section 5.3 of the CMEP is included within this Agreement.
47. 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.
48. 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.
49. The Agreement may be signed in counterparts.
50. This Agreement is executed in duplicate, each of which so executed shall be deemed to be an original.

[SIGNATURE PAGE TO FOLLOW]⁹

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

⁹ An electronic version of this executed document shall have the same force and effect as the original.

ENDORSED BY:

/s/ Niki Schaefer
Niki Schaefer
Vice President & General Counsel
ReliabilityFirst Corporation

June 7, 2021
Date

AGREED TO AND ACCEPTED BY:

Ohio Valley Electric Corporation

Ohio Valley Electric Corporation

Date

ReliabilityFirst Corporation

/s/ Timothy R. Gallagher
Timothy R. Gallagher
President & Chief Executive Officer
ReliabilityFirst Corporation

June 7, 2021
Date

ENDORSED BY:

Niki Schaefer
Vice President & General Counsel
ReliabilityFirst Corporation

Date

AGREED TO AND ACCEPTED BY:

Ohio Valley Electric Corporation



Justin J. Cooper
Vice President, COO & CFO
Ohio Valley Electric Corporation

8/24/21

Date

ReliabilityFirst Corporation

Timothy R. Gallagher
President & Chief Executive Officer
ReliabilityFirst Corporation

Date

ReliabilityFirst

Confidential Non-Public Information

September 06, 2018

Self Report

Entity Name: Ohio Valley Electric Corporation (OVEC)

NERC ID: NCR00857

Standard: FAC-003-4

Requirement: FAC-003-4 R2.

Date Submitted: September 06, 2018

Has this violation previously No
been reported or discovered?:Entity Information:Joint Registration
Organization (JRO) ID:Coordinated Functional
Registration (CFR) ID:

Contact Name: Gary Gillespie

Contact Phone: 7402897226

Contact Email: ggillesp@ovec.com

Violation:

Violation Start Date: September 04, 2018

End/Expected End Date: September 05, 2018

Reliability Functions: Transmission Owner (TO)

Is Possible Violation still No
occurring?:

Number of Instances: 1

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

Which Regions:

Date Reported to Regions:

Detailed Description and Cause of Possible Violation: Vegetation (cedar tree) contact in R-O-W on Clifty Creek - Pierce #2 345 kV
Circuit. See data submittal made on 9/6/18.Mitigating Activities:

Description of Mitigating Activities and Preventative Measure: Arial survey was in progress when helicopter involved in crash. The area in which this incident occurred was not surveyed as a result. Once discovered, the tree was removed and the circuit returned to service.

Date Mitigating Activities Completed: September 05, 2018

Impact and Risk Assessment:

Potential Impact to BPS: Minimal

Actual Impact to BPS: Minimal

Description of Potential and Actual Impact to BPS: None. Other circuits loaded slightly. Actual loading prior to incident was 46% of summer normal rating.

Risk Assessment of Impact to BPS: Minimal impact.

Helicopter incident resulted in delays to inspection schedule. See data

ReliabilityFirst

Confidential Non-Public Information

September 06, 2018

Self Report

Additional Entity Comments: submittal made on 9/6/18. Full report pending.

Additional Comments		
From	Comment	User Name
No Comments		

Additional Documents			
From	Document Name	Description	Size in Bytes
No Documents			

Mitigation Plan

Mitigation Plan Summary

Registered Entity: Ohio Valley Electric Corporation

Mitigation Plan Code: RFCMIT014860-1

Mitigation Plan Version: 2

NERC Violation ID	Requirement	Violation Validated On
RFC2018020403	FAC-003-4 R2.	

Mitigation Plan Submitted On: March 09, 2020

Mitigation Plan Accepted On:

Mitigation Plan Proposed Completion Date: December 02, 2019

Actual Completion Date of Mitigation Plan:

Mitigation Plan Certified Complete by OVEC On:

Mitigation Plan Completion Verified by RF On:

Mitigation Plan Completed? (Yes/No): No

Compliance Notices

Section 6.2 of the NERC CMEP 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 B.
 - (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 or recommended to the applicable governmental authorities 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.
 - (11) This submittal form may be used to provide a required Mitigation Plan for review and approval by regional entity(ies) and NERC.
- The Mitigation Plan shall be submitted to the regional entity(ies) 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 alleged or confirmed violations of one Reliability Standard. A separate mitigation plan is required to address alleged or confirmed violations with respect to each additional Reliability Standard, as applicable.
 - If the Mitigation Plan is accepted by regional entity(ies) and approved by NERC, a copy of this Mitigation Plan will be provided to the Federal Energy Regulatory Commission or filed with the applicable governmental authorities for approval in Canada.
 - Regional Entity(ies) 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.
 - The user has read and accepts the conditions set forth in these Compliance Notices.

Entity Information

Identify your organization:

Entity Name: Ohio Valley Electric Corporation

NERC Compliance Registry ID: NCR00857

Address: 3932 U. S. Route 23
Piketon OH 45661

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

Name: Gary W. Gillespie

Title: Chief Transmission and Substation Engineer

Email: ggillesp@ovec.com

Phone: 740-289-7226

Violation(s)

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

Violation ID	Date of Violation	Requirement
Requirement Description		
RFC2018020403	09/04/2018	FAC-003-4 R2.
Each applicable Transmission Owner and applicable Generator Owner shall manage vegetation to prevent encroachments into the MVCD of its applicable line(s) which are not either an element of an IROL, or an element of a Major WECC Transfer Path; operating within its Rating and all Rated Electrical Operating Conditions of the types shown below:		

Brief summary including the cause of the violation(s) and mechanism in which it was identified:

OVEC self reported a possible vegetation related outage that took place on 9/4/18 during localized severe thunderstorms.

Relevant information regarding the identification of the violation(s):

Circuit attempted to reclose three times as designed, but did not do so successfully. Immediate investigation at the area of the fault indicated by the protective relay pointed to a possible flash to a cedar tree. Although the tree showed no indication of a 345kV flashover, it was removed.

Plan Details

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 violation(s) identified above in Section C.1 of this form:

Obtain the services of a qualified helicopter contractor to perform transmission line detailed inspections on all OVEC-IKEC circuits for vegetation conditions. This is to include flight logs, detailed reports on problem areas as well as invoices and contracts. (Inspection was completed 9/27/2019)

Revise the current TVMP to incorporate all aspects of the most recent FAC-003 requirements and measurements (12/02/2019). Engage an outside source to review/advise as to completeness of the OVEC TVMP document and plan and to benchmark against the industry practices. Completion date (3/31/2020)

Perform a Root Cause Analysis to ascertain the root cause of the violation to ensure that causes have been addressed and corrected. (3/31/2020)

Formalize the "Vegetation Management Schedule and Results documentation to include versions, dates, and signatures of personnel that completed the sheet. This will be housed and tracked in the OVEC DMS. (11/29/2019)

Quarterly review of the appropriate standards will ensure OVEC uses the most recent revisions in its TVMP documentation to ensure compliance.

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:

Proposed Completion date of Mitigation Plan: December 02, 2019

Milestone Activities, with completion dates, that your organization is proposing for this Mitigation Plan:

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
Perform detailed vegetation inspection on all OVEC circuits	Inspect all OVEC circuits for vegetation encroachments and provide a detailed report to include flight logs, and location and description of problem areas. Inspections will be conducted following the procedure indicated in the OVEC TVMP	09/27/2019	09/27/2019		No
Formalize the "Vegetation Management	Include the "Vegetation Management	11/29/2019			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
Schedule and Results" Document	Schedule and Results" document in the OVEC DMS. The formalized document will include versions, dates, and initials of responsible personnel.				
Revise OVEC TVMP	The OVEC TVMP will be revised to address the latest version of the FAC-003 standard and to address inspections and documentation of said inspections	12/02/2019			No

Additional Relevant Information

Reliability Risk

Reliability Risk

While the Mitigation Plan is being implemented, 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 known or anticipated : (i) Identify any such risks or impacts, and; (ii) discuss any actions planned or proposed to address these risks or impacts.

There is no higher reliability risk as the complete OVEC transmission system has been inspected (Completed 9/27/2019) with no problems reported.

Prevention

Describe how successful completion of this plan will prevent or minimize the probability further violations of the same or similar reliability standards requirements will occur

Detailed annual inspections of the entire OVEC transmission system will be performed and will include flight logs, contracts, invoices and documentation/video evidence of any vegetation encroachment. The requirements of these inspections as will be included in the revised TVMP.

Describe any action that may be taken or planned beyond that listed in the mitigation plan, to prevent or minimize the probability of incurring further violations of the same or similar standards requirements

The detailed inspection above will be supplemented to inspections by OVEC personnel. The supplemental inspections will be documented to include area inspected, dates and personnel involved. These requirements will be reflected in the revised TVMP.

Authorization

An authorized individual must sign and date the signature page. By doing so, this individual, on behalf of your organization:

- * Submits the Mitigation Plan, as presented, to the regional entity for acceptance and approval by NERC, and
- * if applicable, certifies that the Mitigation Plan, as presented, was completed as specified.

Acknowledges:

1. I am qualified to sign this mitigation plan on behalf of my organization.
2. I have read and understand the obligations to comply with the mitigation plan requirements and ERO remedial action directives as well as ERO documents, including but not limited to, the NERC rules of procedure and the application NERC CMEP.
3. I have read and am familiar with the contents of the foregoing Mitigation Plan.

Ohio Valley Electric Corporation Agrees to be bound by, and comply with, this Mitigation Plan, including the timetable completion date, as accepted by the Regional Entity, NERC, and if required, the applicable governmental authority.

Authorized Individual Signature: _____

(Electronic signature was received by the Regional Office via CDMS. For Electronic Signature Policy see CMEP.)

Authorized Individual

Name: Gary W. Gillespie

Title: Chief Transmission and Substation Engineer

Authorized On: November 25, 2019

Certification of Mitigation Plan Completion

Submittal of a Certification of Mitigation Plan Completion shall include data or information sufficient for the Regional Entity to verify completion of the Mitigation Plan. The Regional Entity may request additional data or information and conduct follow-up assessments, on-site or other Spot Checking, or Compliance Audits as it deems necessary to verify that all required actions in the Mitigation Plan have been completed and the Registered Entity is in compliance with the subject Reliability Standard. (CMEP Section 6.6)

Registered Entity Name: Ohio Valley Electric Corporation

NERC Registry ID: NCR00857

NERC Violation ID(s): RFC2018020403

Mitigated Standard Requirement(s): FAC-003-4 R2.

Scheduled Completion as per Accepted Mitigation Plan: December 02, 2019

Date Mitigation Plan completed: May 12, 2020

RF Notified of Completion on Date: May 13, 2020

Entity Comment:

Additional Documents			
From	Document Name	Description	Size in Bytes
Entity	CDMS_MitPlanCertOfCompletion_150826.pdf	Certification of Mitigation Plan Completion	80,703

I certify that the Mitigation Plan for the above named violation(s) has been completed on the date shown above and that all submitted information is complete and correct to the best of my knowledge.

Name: Scott R. Cunningham

Title: Electrical Operations Director

Email: scunnng@ovec.com

Phone: 1 (740) 289-7217

Authorized Signature _____ Date _____

(Electronic signature was received by the Regional Office via CDMS. For Electronic Signature Policy see CMEP.)



Mitigation Plan Verification for RFC2018020403

Ohio Valley Electric Corporation (“OVEC”)

Standard/Requirement: FAC-003-4 R2

NERC Mitigation Plan ID: RFCMIT014860-1

Date of Completion of Mitigation: March 31, 2020

Description of Issue: [Case File](#)

Evidence Reviewed	
File Name	Description of Evidence
File 1	Discussion on Clifty-Pierce NO. 2 Outage
File 2	clifty creek-pierce line sht 58 8.29.19
File 3	IEEE Standard 738-2006 Steady-State Conductor Temperature Report (1624amp 2mph Wind)
File 4	IEEE Standard 738-2006 Steady-State Conductor Temperature Report (745amp 2mph Wind)
File 5	Copy of Clifty Pierce No 2
File 6	OVEC CP-2 SEPT 4-2018 Lockout Report RFC2018020403
File 7	OVEC IKEC Vegetation Management Program 3 26 2019 RFC2018020403
File 8	CDMS MitPlanCertOfCompletion 150826

Verification of Mitigation Plan Completion

Milestone 1: Perform detailed vegetation inspection on all OVEC circuits.

Proposed Completion Date: 09/27/2019

Actual Completion Date: 09/27/2019



The following files demonstrate completion of this milestone:

- 9-09-24 OVEC Report.xlsx consists of the Ohio Valley Electric Damage Report dated 09/24/19 which lists the structure number, Line Name/Sub Component, Damage Type, Priority, Direction, Location, Material, Size, Repair Method, Photo ID and Field Remarks.
- 9-09-25 OVEC Report.xlsx consists of the Ohio Valley Electric Damage Report dated 09/25/19 which lists the structure number, Line Name/Sub Component, Damage Type, Priority, Direction, Location, Material, Size, Repair Method, Photo ID and Field Remarks.
- X530 – Kyger Comprehensive.xlsx consists of the Ohio Valley Electric Damage Report dated 09/25/19 to 09/27/19 which lists the structure number, Line Name/Sub Component, Damage Type, Priority, Direction, Location, Material, Size, Repair Method, Photo ID and Field Remarks.
- 2019 Aerial Invoice.pdf consists of invoice from Aerial Patrol Incorporated dated 10/28/19 for the Observe Services provided from 09/23/19 to 09/27/19

Milestone #1: Completion verified.

Milestone 2: Formalize the "Vegetation Management Schedule and Results" Document.

Proposed Completion Date: 11/29/2019

Actual Completion Date: 3/31/2020

Vegetation Compliance Document.docx consists of the Vegetation Management Schedule and Results dated 3/31/2020 for the Aerial Patrol Schedule, Transmission Line Inspection Schedule, and Vegetation Maintenance Schedule. This demonstrates completion of this milestone.

Milestone #2: Completion verified.

Milestone 3: Revise OVEC TVMP

Proposed Completion Date: 12/02/2019

Actual Completion Date: 02/26/2020

The following files demonstrate completion of this milestone:



- OVEC Transmission Vegetation Management Program – PCS.docx consists of the OVEC Transmission Vegetation Management Program (TVMP) effective November 29, 2019. Revision Table on Page 10 indicates that Revision 1.0 was to completely replace previous TVMP. This demonstrates completion of this milestone.
- Invoice_4106_from_Proven_Compliance_Solutions.pdf consists of the invoice dated 03/04/2020 which lists the date and activities associated with the review of OVEC's TVMP from 02/24/2020 to 02/26/2020.

Milestone #3: Completion verified.

The Mitigation Plan is hereby verified complete.

A handwritten signature in black ink, appearing to be 'Anthony Jablonski'.

Date: August 10, 2020

Anthony Jablonski
Manager, Risk Analysis & Mitigation
ReliabilityFirst Corporation

Violation - Discovery Record

Registered Entity: Ohio Valley Electric Corporation

NERC Registry ID: NCR00857

NERC Violation ID: RFC2019022260

Discovery Method: Audit

Date Submitted: September 26, 2019

Region Contact: Max Reisinger

Phone: 216-503-0664 Email: maxwell.reisinger@rfirst.org

Standard: FAC-003-4 - Transmission Vegetation Management

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

Requirement: FAC-003-4 R6.

Each applicable Transmission Owner and applicable Generator Owner shall perform a Vegetation Inspection of 100% of its applicable transmission lines (measured in units of choice - circuit, pole line, line miles or kilometers, etc.) at least once per calendar year and with no more than 18 calendar months between inspections on the same ROW (Footnote: When the applicable Transmission Owner or applicable Generator Owner is prevented from performing a Vegetation Inspection within the timeframe in R6 due to a natural disaster, the TO or GO is granted a time extension that is equivalent to the duration of the time the TO or GO was prevented from performing the Vegetation Inspection.)

Violated Sub-
Requirement(s):

Violated Function(s): Transmission Owner (TO)

Init Determ a Vln: September 26, 2019

Begin Date of Vln: January 01, 2019

End Date:

Notified of Vln on: September 25, 2019

Potential Impact to
BES:

Brief Vln Descr. & Cause: The Entity failed to adequately maintain a reliable electric transmission system by using a defense-in-depth strategy to manage vegetation located on transmission rights of way (ROW) and minimize encroachments from vegetation located adjacent to the ROW, thus preventing the risk of those vegetation-related outages that could lead to Cascading.

Alleged Violation:

Registered Entity
Report/Response:

ReliabilityFirst

Confidential Non-Public Information

May 24, 2021

Risk Factor:

Severity Level:

Factual Basis:

Mitigation Plan

Mitigation Plan Summary

Registered Entity: Ohio Valley Electric Corporation

Mitigation Plan Code: RFCMIT014859-1

Mitigation Plan Version: 2

<u>NERC Violation ID</u>	<u>Requirement</u>	<u>Violation Validated On</u>
RFC2019022260	FAC-003-4 R6.	

Mitigation Plan Submitted On: March 09, 2020

Mitigation Plan Accepted On:

Mitigation Plan Proposed Completion Date: December 02, 2019

Actual Completion Date of Mitigation Plan:

Mitigation Plan Certified Complete by OVEC On:

Mitigation Plan Completion Verified by RF On:

Mitigation Plan Completed? (Yes/No): No

Compliance Notices

Section 6.2 of the NERC CMEP 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 B.
 - (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 or recommended to the applicable governmental authorities 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.
 - (11) This submittal form may be used to provide a required Mitigation Plan for review and approval by regional entity(ies) and NERC.
- The Mitigation Plan shall be submitted to the regional entity(ies) 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 alleged or confirmed violations of one Reliability Standard. A separate mitigation plan is required to address alleged or confirmed violations with respect to each additional Reliability Standard, as applicable.
 - If the Mitigation Plan is accepted by regional entity(ies) and approved by NERC, a copy of this Mitigation Plan will be provided to the Federal Energy Regulatory Commission or filed with the applicable governmental authorities for approval in Canada.
 - Regional Entity(ies) 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.
 - The user has read and accepts the conditions set forth in these Compliance Notices.

Entity Information

Identify your organization:

Entity Name: Ohio Valley Electric Corporation

NERC Compliance Registry ID: NCR00857

Address: 3932 U. S. Route 23
Piketon OH 45661

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

Name: Gary W. Gillespie

Title: Chief Transmission and Substation Engineer

Email: ggillesp@ovec.com

Phone: 740-289-7226

Violation(s)

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

Violation ID	Date of Violation	Requirement
Requirement Description		
RFC2019022260	12/01/2018	FAC-003-4 R6.
Each applicable Transmission Owner and applicable Generator Owner shall perform a Vegetation Inspection of 100% of its applicable transmission lines (measured in units of choice - circuit, pole line, line miles or kilometers, etc.) at least once per calendar year and with no more than 18 calendar months between inspections on the same ROW1		

Brief summary including the cause of the violation(s) and mechanism in which it was identified:

OVEC could not prove with proper documentation that 100% of the rights-of-way were inspected in 2018 for vegetation due to a helicopter crash and subsequent process to replace the helicopter contractor. The helicopter crash occurred after approximately 90% of the rights-of-way had been inspected. The violation was identified during an audit.

Relevant information regarding the identification of the violation(s):

The remaining 10% of the rights-of-way were inspected by an exempt OVEC employee; however, sufficient documentation could not be provided to satisfy the audit team.

Plan Details

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 violation(s) identified above in Section C.1 of this form:

Obtain the services of a transmission line detailed inspection service to inspect all OVEC-IKEC circuits for vegetation conditions. This is to include flight logs, detailed reports on problem areas as well as invoices and contracts. (Inspection completed 9/27/2019)

Revise the current TVMP to incorporate all aspects of the most recent FAC-003 requirements and measurements (12/02/2019). Engage an outside source to review/advise as to completeness of the OVEC TVMP document and plan and to benchmark against the industry practices. Completion date (3/31/2020).

Perform a Root Cause Analysis to ascertain the root cause of the violation to ensure that causes have been addressed and corrected. (3/31/2020)

Formalize the "Vegetation Management Schedule and Results documentation to include versions, dates, and signatures of personnel that completed the sheet. This will be housed and tracked in the OVEC DMS.

Quarterly review of the appropriate standards will ensure OVEC uses the most recent revisions in its TVMP documentation to ensure compliance.

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:

Proposed Completion date of Mitigation Plan: December 02, 2019

Milestone Activities, with completion dates, that your organization is proposing for this Mitigation Plan:

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
Detailed Inspection of all OVEC Rights-of-way	Obtain contract services to inspect 100 of the OVEC rights-of-ways for 2019 and beyond.	09/27/2019	09/27/2019	100% of the OVEC system was inspected, no vegetation encroachments were identified. The inspection was documented using flight logs, invoices, and findings reports.	No
Formalize the "Vegetation Management Schedule and Results" Document	Include the "Vegetation Management Schedule and Results" document in the OVEC DMS. The formalized document will include versions, dates, and initials of responsible	11/29/2019			No

Milestone Activity	Description	*Proposed Completion Date (Shall not be greater than 3 months apart)	Actual Completion Date	Entity Comment on Milestone Completion	Extension Request Pending
	personnel.				
Revise OVEC TVMP	The OVEC TVMP will be revised to address the latest version of the FAC-003 standard and to address inspections and documentation of said inspections	12/02/2019			No

Additional Relevant Information

Reliability Risk

Reliability Risk

While the Mitigation Plan is being implemented, 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 known or anticipated : (i) Identify any such risks or impacts, and; (ii) discuss any actions planned or proposed to address these risks or impacts.

There is no higher reliability risks during the mitigation plan as all OVEC-IKEC circuit rights-of-ways have been aerially inspected (9/27/19) with no problems reported.

Prevention

Describe how successful completion of this plan will prevent or minimize the probability further violations of the same or similar reliability standards requirements will occur

Completion of the plan corrects the inspection problems as well as the documentation problems of the inspections.

Describe any action that may be taken or planned beyond that listed in the mitigation plan, to prevent or minimize the probability of incurring further violations of the same or similar standards requirements

Authorization

An authorized individual must sign and date the signature page. By doing so, this individual, on behalf of your organization:

- * Submits the Mitigation Plan, as presented, to the regional entity for acceptance and approval by NERC, and
- * if applicable, certifies that the Mitigation Plan, as presented, was completed as specified.

Acknowledges:

1. I am qualified to sign this mitigation plan on behalf of my organization.
2. I have read and understand the obligations to comply with the mitigation plan requirements and ERO remedial action directives as well as ERO documents, including but not limited to, the NERC rules of procedure and the application NERC CMEP.
3. I have read and am familiar with the contents of the foregoing Mitigation Plan.

Ohio Valley Electric Corporation Agrees to be bound by, and comply with, this Mitigation Plan, including the timetable completion date, as accepted by the Regional Entity, NERC, and if required, the applicable governmental authority.

Authorized Individual Signature: _____
(Electronic signature was received by the Regional Office via CDMS. For Electronic Signature Policy see CMEP.)

Authorized Individual

Name: Gary W. Gillespie

Title: Chief Transmission and Substation Engineer

Authorized On: November 25, 2019

Certification of Mitigation Plan Completion

Submittal of a Certification of Mitigation Plan Completion shall include data or information sufficient for the Regional Entity to verify completion of the Mitigation Plan. The Regional Entity may request additional data or information and conduct follow-up assessments, on-site or other Spot Checking, or Compliance Audits as it deems necessary to verify that all required actions in the Mitigation Plan have been completed and the Registered Entity is in compliance with the subject Reliability Standard. (CMEP Section 6.6)

Registered Entity Name: Ohio Valley Electric Corporation

NERC Registry ID: NCR00857

NERC Violation ID(s): RFC2019022260

Mitigated Standard Requirement(s): FAC-003-4 R6.

Scheduled Completion as per Accepted Mitigation Plan: December 02, 2019

Date Mitigation Plan completed: May 26, 2020

RF Notified of Completion on Date: May 26, 2020

Entity Comment:

Additional Documents			
From	Document Name	Description	Size in Bytes
Entity	CDMS_MitPlanCertOfCompletion_151107.pdf	Certification of Mitigation Plan Completion	81,178

I certify that the Mitigation Plan for the above named violation(s) has been completed on the date shown above and that all submitted information is complete and correct to the best of my knowledge.

Name: Scott R. Cunningham

Title: Electrical Operations Director

Email: scunning@ovec.com

Phone: 1 (740) 289-7217

Authorized Signature _____ Date _____

(Electronic signature was received by the Regional Office via CDMS. For Electronic Signature Policy see CMEP.)



Mitigation Plan Verification for RFC2019022260

Ohio Valley Electric Corporation (“OVEC”)

Standard/Requirement: FAC-003-4 R6

NERC Mitigation Plan ID: RFCMIT014859-1

Date of Completion of Mitigation: November 30, 2020

Description of Issue: [Case File](#)

Evidence Reviewed	
File Name	Description of Evidence
File 1	CDMS MitPlanCertOfCompletion 151107
File 2	Responses for ID number RFC2019022260
File 3	Compliance Review Procedure
File 4	Max's Questions
File 5	Response to Explanation on the Circuit outages and safety clearances
File 6	Vegetation Compliance Document
File 7	19-09-24 OVEC Report
File 8	19-09-25 OVEC Report
File 9	2019 Aerial Invoice
File 10	X530 – Kyger Comprehensive
File 11	Invoice 4106 from Proven Compliance Solutions
File 12	OVEC Transmission Vegetation Management Program – PCS
File 13	RFI - RFC2019022260

Verification of Mitigation Plan Completion

Milestone 1: Obtain the services of a transmission line detailed inspection service to inspect all OVEC-IKEC circuits for vegetation conditions. This is to include flight logs, detailed reports on problem areas as well as invoices and contracts.



Proposed Completion Date: 09/27/2019

Actual Completion Date: 09/27/2019

File 7 19-09-24 OVEC Report, File 8 19-09-25 OVEC Report, and File 10 X530 - Kyger Comprehensive are detailed inspection reports (Excel spreadsheets) of OVEC Right of Ways. The dates the inspections were performed is within the reports. Since there were many entries that appeared to have vegetation issues identified, an RFI (*File 13 RFI - RFC2019022260*) was submitted by RF to gain assurance that these issues had been resolved/addressed.

In response to this RFI, OVEC submitted the following documents:

- *File 2 Responses for ID number RFC2019022260* – This is a narrative response from OVEC for each of the RFIs. The relevant narrative response to this RFI is as follows: “Included in with this document is an email, and attachment from B.A. Cox that indicates that all concerns by the helicopter survey were addressed, and that at no time did any vegetation enter into the MVCD.”
- *File 4 Max's Questions* – This is the email (dated 11/13/2020) referenced in the above bullet point. Within the email it stated: “Attached is a spreadsheet with dates the locations in question were checked and any mitigation, if necessary. Those marked N/A needed no work. I have no notes that any of the vegetation was within MVCD.”
- *File 5 Response to Explanation on the Circuit outages and safety clearances* – This is the attached spreadsheet (actually a Word document) to the email referenced in the above bullet point. It provides explanations/resolution to the issues identified.

File 9 2019 Aerial Invoice is an invoice for performing the aerial patrol work documented in *File 7 19-09-24 OVEC Report, File 8 19-09-25 OVEC Report, and File 10 X530 - Kyger Comprehensive*.

Milestone #1: Completion verified.

Milestone 2: Revise the current TVMP to incorporate all aspects of the most recent FAC-003 requirements and measurements.

Proposed Completion Date: 12/02/2019

Actual Completion Date: 3/25/2020



File 12 OVEC Transmission Vegetation Management Program-PCS is OVEC's revised TVMP. On the cover page it indicates the effective date is November 29, 2019. The revision history page (the last page of the TVMP) has the following revisions:

- Revision 1.0 (dated 11/29/2019)
- Revision 2.0 (dated 3/02/2020)
- Revision 3.0 (dated 3/25/2020)

Milestone #2: Completion verified.

Milestone 3: Engage an outside source to review/advise as to completeness of the OVEC TVMP document and plan and to benchmark against the industry practices.

Proposed Completion Date: 03/31/2020

Actual Completion Date: 02/26/2020

File 11 Invoice_4106_from_Proven_Compliance_Solutions is an invoice from an outside source (Proven Compliance Solutions) for services to review/edit OVEC's TVMP. The review/edits were completed on 2/26/2020.

Milestone #3: Completion verified.

Milestone 4: Perform a Root Cause Analysis to ascertain the root cause of the violation to ensure that causes have been addressed and corrected.

Proposed Completion Date: 03/31/2020

Actual Completion Date: 11/30/2020

File 2 Responses for ID number RFC2019022260 – This is a narrative response from OVEC for each of the RFIs. The relevant narrative response to this RFI is as follows: “For well over 50 years, OVEC depended on a helicopter service to carry our vegetation management observer (OVEC only has one) to survey the OVEC transmission system. The survey would include the eastern half of the system one day, and weather permitting, the western half of the system the following day. As our only OVEC observer, and person responsible for scheduling maintenance was aboard the aircraft when the accident occurred, the schedule for maintenance and inspection was interrupted. As OVEC is extremely small, another service was not readily available and a vendor could not be



vettted quickly enough. Therefore, the helicopter accident did impact all aspects of vegetation management.” The narrative response to the RFI is dated November 30, 2020.

Milestone #4: Completion verified.

Milestone 5: Formalize the "Vegetation Management Schedule and Results documentation to include versions, dates, and signatures of personnel that completed the sheet. This will be housed and tracked in the OVEC DMS.

Proposed Completion Date: 03/31/2019

Actual Completion Date: 12/09/2019

When OVEC certified the Mitigation Plan was complete (and purportedly provided documentation/evidence of the completion), OVEC did not provide any evidence/documentation showing that this milestone was completed. Since no evidence/documentation was provided, an RFI (*File 13 RFI - RFC2019022260*) was submitted by RF requesting evidence of completion of this milestone. In response, OVEC submitted the following documents:

- *File 2 Responses for ID number RFC2019022260* – This is a narrative response from OVEC for each of the RFIs. The relevant narrative response to this RFI is as follows: “The Vegetation Management Schedule and Results document resides as a formal document in the OVEC DMS. A copy of the latest version is included.”
- *File 6 Vegetation Compliance Document* – This is the “Vegetation Management Schedule and Results” document as requested in the RFI. A revision history is on the final page. There are 3 revisions (with dates) but since this is a “living” document, it is concluded that the relevant revision is 1.0 – dated 12/09/2019.

Milestone #5: Completion verified.

Milestone 6: Quarterly review of the appropriate standards will ensure OVEC uses the most recent revisions in its TVMP documentation to ensure compliance.

Proposed Completion Date: 03/31/2020

Actual Completion Date: 03/31/2020



When OVEC certified the Mitigation Plan was complete (and purportedly provided documentation/evidence of the completion), OVEC did not provide any evidence/documentation showing that this milestone was completed. Since no evidence/documentation was provided, an RFI (*File 13 RFI - RFC2019022260*) was submitted by RF requesting “evidence that shows the quarterly review occurred to demonstrate that OVEC is using the most recent revision of FAC-003.” In response, OVEC submitted the following document:

- *File 2 Responses for ID number RFC2019022260* – This is a narrative response from OVEC for each of the RFIs. The relevant narrative response to this RFI is as follows: “Brian Hicks follows the included standard work document to ensure that OVEC is using the latest versions of standards.”
- *File 3 Compliance Review Procedure* – This is a “Compliance Evidence Review Procedure.” The stated purpose of this procedure is as follows: “The purpose of this procedure is to provide instruction on how to complete document reviews regarding NERC Compliance Evidence and assure that reviews are completed in a consistent and timely manner.”

While OVEC did not provide direct evidence (evidence of the referenced reviews) that this milestone was completed, OVEC did provide a new procedure, indicating that OVEC has a process in place to help ensure periodic reviews are performed. RF considers the evidence for completion of this milestone to be acceptable.

Milestone #6: Completion verified.

The Mitigation Plan is hereby verified complete.

A handwritten signature in black ink, appearing to read 'Anthony Jablonski'.

Date: April 20, 2021

Anthony Jablonski
Manager, Risk Analysis & Mitigation
ReliabilityFirst Corporation