

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

**NORTH AMERICAN ELECTRIC )  
RELIABILITY CORPORATION )      Docket No. NP10-20-000**

**RESPONSE OF THE  
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION AND  
RELIABILITYFIRST CORPORATION TO  
THE COMMISSION'S JANUARY 29, 2010 LETTER ORDER REQUESTING  
DATA AND DOCUMENTS**

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David N. Cook  
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February 16, 2010

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**Non-public Attachment E:** *[This Attachment contains Privileged and Confidential Information and Critical Energy Infrastructure Information that have been removed from this public version.]*

**Non-public Attachment F:** *[This Attachment contains Privileged and Confidential Information and Critical Energy Infrastructure Information that have been removed from this public version.]*

**Non-public Attachment G:** *[This Attachment contains Privileged and Confidential Information and Critical Energy Infrastructure Information that have been removed from this public version.]*

**Non-public Attachment H:** *[This Attachment contains Privileged and Confidential Information and Critical Energy Infrastructure Information that have been removed from this public version.]*

**Non-public Attachment I:** *[This Attachment contains Privileged and Confidential Information and Critical Energy Infrastructure Information that have been removed from this public version.]*

**Non-public Attachment J:** *[This Attachment contains Privileged and Confidential Information and Critical Energy Infrastructure Information that have been removed from this public version.]*

## **I. INTRODUCTION**

The North American Electric Reliability Corporation (“NERC”) and ReliabilityFirst Corporation (“ReliabilityFirst” or “RFC”) respectfully submit this Response to the Federal Energy Regulatory Commission’s (“FERC” or the “Commission”) January 29, 2010 Request for Data and Documents (“January 29 Data and Document Request”) in the above captioned proceeding,<sup>1</sup> regarding NERC’s December 30, 2009 Notice of Penalty filing regarding Duke Energy Corporation (“Duke Energy”) in the ReliabilityFirst Region. The Notice of Penalty pertains to a one hundred thousand dollar (\$100,000) settlement agreed to by ReliabilityFirst and Duke Energy for violations of Reliability Standards FAC-003-1 Requirement (R) 2 and FAC-009-1 R1. The January 29 Data and Document Request seeks additional data from NERC and ReliabilityFirst to assist FERC Staff with its analysis of the December 30, 2009 Notice of Penalty filing. This filing responds to the January 29 Data and Document Request seeking supplemental documentation to ensure that sufficient facts and evidence are provided in support of the Notice of Penalty. Where available, Duke Energy provided additional information to ReliabilityFirst in support of this response.

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<sup>1</sup> *North American Electric Reliability Corporation*, 130 FERC ¶ 62,111 (2010) (“January 29 Data and Document Request”).

## **II. NOTICES AND COMMUNICATIONS**

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

Gerald W. Cauley\*  
President and Chief Executive Officer  
David N. Cook\*  
Vice President and General Counsel  
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ReliabilityFirst Corporation  
320 Springside Drive, Suite 300  
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\*Persons to be included on the Commission's official service list. NERC requests waiver of the Commission's rules and regulations to permit the inclusion of more than two people on the service list.

## **III. RESPONSES TO THE JANUARY 29 ORDER**

Information set forth in Non-Public Attachments E, F, G, H, I and J to the instant filing includes privileged and confidential information and critical energy infrastructure information as defined by the Commission's regulations at 18 C.F.R. Part 388 and orders, as well as NERC Rules of Procedure including the NERC Uniform Compliance Monitoring and Enforcement Program ("CMEP") Appendix 4C to the NERC Rules of Procedure. Specifically, the information pertains to proprietary or business design information, including a Regional Entity's

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investigative files as well as design and other information related to vulnerabilities of critical energy infrastructure information that is not publicly available. Accordingly, the information set forth in Non-Public Attachments E, F, G, H, I and J have been redacted from the public filing. In accordance with the Commission's Rules of Practice and Procedure, 18 C.F.R. § 388.112, a non-public version of the information redacted from the public filing is being provided under separate cover. NERC requests that the confidential, non-public information be provided special treatment in accordance with the above regulation.

***A. Request #1: Please provide the Vegetation Outage Questionnaire that Duke Energy submitted to RFC on November 19, 2007 and all information related to NERC Violation ID# RFC200701484 or the accepted mitigation plan related to this violation, as identified in Paragraphs II.B.9 and III.B.26 of the Duke Energy-RFC settlement agreement.***

**Response:** The referenced Vegetation Outage Questionnaire is included in this response as Attachment A. Based on Duke Energy's responses to the questions, ReliabilityFirst determined that Duke Energy had taken adequate steps to ensure that the line in question was patrolled and that steps were being taken to ensure that activities performed near transmission lines did not pose any risk to the line in question and other transmission lines near which activities were being performed.

The violation associated with identification number RFC200701484 occurred and was reported to ReliabilityFirst prior to the effective date of mandatory compliance with the NERC Reliability Standards; therefore, it was designated as a "Pre-June 18, 2007" violation. Specifically, Duke Energy notified ReliabilityFirst of the violation via a Self-Reporting Form submitted on June 8, 2007, prior to the mandatory and enforceable date of June 18, 2007. This form is included as Attachment B. In evaluating the violation, ReliabilityFirst also analyzed Duke Energy's quarterly Vegetation Outage Report dated July 18, 2007, which is included as Attachment C.

On June 15, 2007, Duke Energy submitted a Mitigation Plan that was ultimately accepted by ReliabilityFirst on June 16, 2007, included as Attachment D. This Mitigation Plan was designated as the "Second Revised Mitigation Plan," because it superseded Mitigation Plan versions submitted by Duke Energy on May 31, 2007 and June 8, 2007. The Second Revised Mitigation Plan required Duke Energy to complete a study of its vegetation management practices by an internal investigative task force and then to implement the findings of that study. On January 18, 2008, Duke Energy provided a document titled "Information to Verify Mitigation Plan Completion (NERC ID# RFC2000701484)," in support of its certification of completion of the Mitigation Plan, which is attached as Non-Public Attachment E. ReliabilityFirst reviewed this document to verify completion of the Mitigation Plan.

***B. Request #2: Please provide any other information on aerial, vehicle or foot patrols of Duke Energy Indiana transmission 34516 prior to August 8, 2007.***

**Response:** Information for all of calendar year 2007 regarding flight logs, vegetation observer logs, and other documents evidencing Duke Energy's vegetation management of Duke Energy Indiana transmission line 34516 is set forth in Non-Public Attachment F, which includes Duke Energy's March 6, 2008 response to a February 7, 2008 Request for Information that was issued by ReliabilityFirst.

***C. Request #3: Please state whether any mitigation plan with a NERC or RFC Mitigation Plan number relates to any of the alleged violations described in the Duke Energy-RFC settlement agreement and, if so, provide each such mitigation plan and documentation related to it or its implementation. If there are no such mitigation plans, explain why not.***

**Response:** All of the mitigating and other actions required by and associated with the Duke Energy-RFC Settlement Agreement, executed on November 11, 2009, are set forth in Paragraphs 28 through 31 of the Settlement Agreement. As a result, there was not a separate mitigation plan relevant to the settlement.

***D. Request #4: Please describe the results of Duke Energy's outreach program efforts on educating the public on the need to manage vegetation.***

**Response:** Duke Energy's outreach program has increased community awareness regarding the need to manage vegetation. According to Duke Energy, to date, the community meetings as well as other facets of this outreach program have reduced the number of public inquiries it has received related to vegetation management. Duke Energy continues to maintain a list of personnel resources for the public as well as public officials to contact regarding vegetation management and other issues. Duke Energy also established a pro-active process for reviewing engineering drawings for new construction of residential, commercial, and industrial developments submitted to planning boards, with the end goal and result of ensuring compliance with vegetation planting and management, grading activities, encroachments and public safety on and around transmission line rights-of-way.

Duke Energy has completed the following activities as part of its community outreach program initiative:

- Duke Energy completed community meetings with over 150 public officials in various townships to review Duke Energy's Vegetation Management process and practices;
- Duke Energy reviewed and modified its external website to enhance public awareness about planting compatible vegetation near or around transmission rights-of-way. Duke Energy posted its "Transmission Clearance Guidelines," and maintains a community newsletter entitled "Line Clearance by Duke Energy" and a toll-free contact number, for public education and awareness of vegetation management; and

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- In 2008, Duke Energy established an Asset Protection Team to enhance community awareness and education regarding transmission rights-of-way restrictions in the Midwest operating region:
  - During 2008-2009, the Asset Protection Team held meetings with over 65 local Planning Board and 70 architectural and engineering firms across the service area; and
  - During the same time frame, the Asset Protection Team was an exhibitor at 17 land surveyor, builder and other relevant conferences within the service area.

As part of the settlement agreement terms, upon FERC approval, Duke Energy must provide ReliabilityFirst with a formal report on the activities listed above.

*E. Request #5: Please state whether, and on what date(s), during Duke Energy's activities described in Section IV of the Duke Energy-RFC settlement agreement, Duke Energy (or RFC) identified any facilities other than transmission line 34516 that: (a) were not built as designed or have as-built measurements that differ from design so as to have insufficient vegetation or ground clearances; (b) had facility ratings that were inconsistent with Duke Energy's Facility Ratings Methodology; or (c) had any ground clearance or other issue for which Duke Energy rerated or considered rerating the facility. If so, list each such facility and provide any information relating to its identification by Duke, its facility rating and the basis for that rating or any rerating that has occurred or been considered.*

**Response:** In 2009, Duke Energy completed the 230 kV and 345 kV bulk electric transmission conductor to ground clearance study for the Illinois Coal Basin area of Indiana. Paragraph 31(b) of the Settlement Agreement between Duke Energy and ReliabilityFirst provides for expanding the study to Duke Energy's entire bulk electric transmission system in Indiana, Ohio and Kentucky. This engineering study is scheduled to be completed in 2010.

The initial phase of the project was limited to the Illinois Coal Basin and involved twenty 345 kV circuits and ten 230 kV circuits, as discussed in Paragraph 31(a) of the Settlement Agreement. Sixteen of these circuits did not require any action. Fourteen of the circuits (eight 345 kV circuits and six 230 kV circuits) required temporary de-rating and development of plans to resolve conductor to ground clearance issues. The plans, in aggregate, resulted in installation of four steel 345 kV structures, sixteen wood 345 kV structures, nineteen wood 230 kV structures and grading or other modifications on twenty-four spans. All circuits were returned to normal ratings by May 22, 2009, for this initial phase of the project. ReliabilityFirst reviewed an internal Duke Energy e-mail message dated May 28, 2009 that confirmed this. This internal Duke Energy email message dated May 28, 2009 is included as Non-Public Attachment G. Also, during 2009, Duke Energy completed an additional phase of the project to evaluate the conductor to ground clearance on the entirety of its 230 kV and 345 kV transmission system, as discussed in Paragraph 31(b) of the Settlement Agreement. This phase involved nineteen 345 kV circuits and five 230 kV circuits in Indiana, Ohio and Kentucky. Eleven circuits required no action. Thirteen circuits required temporary de-rating and development of plans to resolve conductor to ground clearance issues. These issues were resolved on six of the 345 kV circuits and one of the

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230 kV circuits. One 345 kV circuit is to be permanently de-rated. Work continues on the remaining six circuits.

The text of the Settlement Agreement identifies that the situation encountered with line 34516 was an “exceptional occurrence.” Like line 34516 the lines discussed here were also temporarily de-rated and then returned to their previous normal ratings after the above remediation was completed; however, none of these latter lines had discrepancies between their “as designed” and “as built” specifications as line 34516 did. Rather, the use of Light Detection and Ranging (“LiDAR”) provides for more precise measurements in some cases, and also has allowed Duke Energy to identify some changes in ground profiles due to development and other land use issues.

Engineering and analysis on the final phase of the 230 kV and 345 kV bulk electric transmission system conductor to ground clearance study will be completed in 2010. This phase involves twenty 230 kV circuits and fourteen 345 kV circuits.

The spreadsheets included as Non-Public Attachment H show the status of every line studied thus far pursuant to both the Illinois Coal Basin study and the 230 kV/345 kV transmission system study.

***F. Request #6: Please state whether, to RFC or NERC’s knowledge, as of 2007 Duke Energy or its affiliates had included any cost in its budgets or programs for 2008, 2009 or 2010 to implement the actions described in Section IV of the Duke Energy-RFC settlement agreement. If so, please identify any such costs.***

**Response:** According to Duke Energy, as of 2007, none of the costs to implement the actions described in Section IV of the Settlement Agreement were included in its budgets or programs for 2008, 2009 and 2010. Duke Energy did, however, budget in 2007 for general costs associated with vegetation management.

***G. Request #7: Please state how, during its assessment of this matter, RFC evaluated the relative importance of the alleged violations of FAC-003-1 R2 and FAC-009-1 R1 because, according to the Notice, it appears that RFC became aware that Duke Energy failed to establish a capacity rating on the transmission line involved in the grow-in contact that was consistent with the minimum conductor to ground clearance according to the National Electric Safety Code.***

**Response:** This analysis is provided as Non-Public Attachments I and J.



**IV. CONCLUSION**

The North American Electric Reliability Corporation and ReliabilityFirst Corporation respectfully request that the Commission accept this filing as compliant with the January 29, 2010 Data and Document Request.

Respectfully submitted,

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Vice President and General Counsel  
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**CERTIFICATE OF SERVICE**

I hereby certify that I have served a copy of the foregoing document upon all parties listed on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, D.C. this 16th day of February, 2010.

*/s/ Rebecca J. Michael*

Rebecca J. Michael

*Attorney for North American Electric  
Reliability Corporation*

# ATTACHMENT A



**Vegetation Outage Questionnaire – [FAC-003]**

**Transmission Owner: Duke Energy Corporation**

**Date of Reported Outage: May 8, 2007**

These questions should be considered by the Transmission Owner when performing the root cause analyses. The Reliability*First* Staff will use these as a guide to assure various issues have been addressed.

1. Was the inspection of your transmission system on schedule in accordance with your transmission Vegetation Management Program?

Duke response: Yes

2. What is the transmission line patrol cycle at the location of the vegetation outage?

Duke response: Aerial patrols are performed at least twice per year, typically in the spring and the fall.

3. When was this line last patrolled?

Duke response: The last patrol prior to the event was an aerial patrol performed January 17, 2007. Since the incident, the line was patrolled on May 8, 11, and 22, August 16, and August 30, 2007.

4. How long has this identified vegetation been there?

Duke response: Undetermined

5. If it is determined that this vegetation was there at the time of the last patrol cycle, was it overlooked, missed, or was it recorded as being a potential problem area?

Duke response: Overlooked or missed.

# RELIABILITY FIRST

6. If it is determined that the vegetation was there at the time of the last patrol cycle, how was it overlooked as being a potential problem?

Duke response: Unknown

7. What was the height of the vegetation that made contact with the transmission line via an electrical arc?

Duke response: The tree was approximately 26 feet tall.

8. How is any activity, construction, strip mining, etc., performed adjacent to your transmission lines, monitored and controlled so it does not interfere with your system reliability?

Duke response: Duke Electric Transmission Rights of Way Restrictions provide a guideline for use of transmission rights of way. Duke Energy transmission lines are inspected twice per year by helicopter looking for current activities on the right of way.

9. How are the entities performing activities, located within your area of responsibility, informed and kept informed of what specific activities are unacceptable in your transmission line right of way?

Duke response: Duke Energy's Rights of Way Restrictions include provisions requiring landowners and others to contact Duke Energy before performing specific activities (refer to the attachment regarding Duke Energy Rights of Way Restrictions).

10. If the outage was the result of activity in question 8 above, are there other locations that could have similar activity taking place?

Duke Response: The outage was not a result of activity in question 8 above.

11. What steps are being taken to assure that this activity does not pose a risk in other locations?

Duke responses:

- 1) Helicopter patrols utilize a designated vegetation spotter and a designated spotter for hardware concerns. Flights vary in direction to get a different view.
- 2) Vegetation patrol schedules are adjusted to patrol lines during the spring growing season, prior to summer peak loads.
- 3) A mid summer patrol of 230 kV and 345 kV lines have been implemented. Additionally, the summer is an active time in and around right of ways for various entities outside of Duke Energy and an extra patrol can be useful in

# RELIABILITY **FIRST**

discovering changes in and around the right of way that may threaten the bulk transmission system.

- 4) Vegetation Management personnel are reviewing standards, trimming practices, and re-emphasizing clearances to reinforce Duke's expectation that any transmission line must be clear of vegetation to operate at its maximum conductor temperature rating at any time.
- 5) Duke is documenting and clarifying right of way restrictions. Duke initiated an ongoing campaign to further educate property owner on restrictions involving transmission right-of-way.
- 6) The post outage and midsummer helicopter patrols conducted as a result of this event are being analyzed to determine whether the current program for right of way vegetation maintenance should be revised for bulk transmission. Any revision to this program would likely involve a multi-year plan for implementation.
- 7) Duke has negotiated for the use of LIDAR to determine vegetation to line and conductor to ground information.

12. Will the steps, referenced in question 11, be an on-going activity?

Duke response: Yes (1 thru 5)

13. Are risks from the identified activity mentioned in your Vegetation Management Program? If not, will they be added?

Duke response: This outage is not attributable to any identifiable activity.

14. Is there a "no activity zone", within your transmission lines right of way, indicating where activities are not permitted?

Duke response: Yes

# ATTACHMENT B



526 South Church Street  
Charlotte, North Carolina

Mailing Address:  
651- Annex  
Cincinnati, Ohio 45202

513 287 3630

513 287 3812 fax

June 8, 2007

Bob Wargo  
ReliabilityFirst Corporation  
320 Springside Drive, Suite 300  
Akron, OH 44333

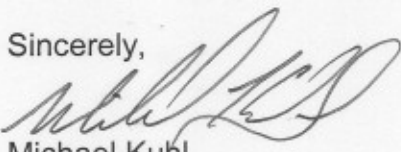
Dear Mr. Wargo:

Subject: Revised Reliability Standard Self-Reporting Form and Mitigation Plan

On May 31, 2007, Duke Energy Corporation submitted a reliability standard self-report form and mitigation plan to ReliabilityFirst as a result of a vegetation related outage on the Duke Energy Indiana transmission system. The self-report form and mitigation plan referenced two instances of potential violations of reliability standard requirements. Upon further review, it is determined that the reliability standard self-report form and mitigation plan include only one potential violation. Therefore, a revised self-report form and revised mitigation plan is included to supersede the original submittal, dated May 31, 2007.

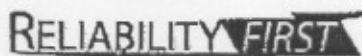
Should you have any questions or concerns, please do not hesitate to contact me.

Sincerely,



Michael Kuhl  
Compliance Administration Program Manager






**COMPLIANCE MONITORING AND ENFORCEMENT PROGRAM  
RELIABILITY STANDARD SELF-REPORTING FORM**

*This Self-Reporting Form can be used for submittals via e-mail or fax for violations of the Reliability Standards identified by a self-assessment process. The ReliabilityFirst CDMS is the preferred method of compliance submittals.*

1. Reliability Standard (XXX-000-0) FAC-003-1
2. **Non Compliance Level:** Check the appropriate box below if the entity is non-compliant to any of the applicable requirement(s) referenced in the levels of non-compliance section of the standard, and identify all applicable requirement(s) which the entity is in violation of in Step 3.
- Entity does not comply with applicable requirement(s) as outlined in Level 1 Non Compliance for the following function(s): \_\_\_\_\_
- Entity does not comply with applicable requirement(s) as outlined in Level 2 Non Compliance for the following function(s): \_\_\_\_\_
- Entity does not comply with applicable requirement(s) as outlined in Level 3 Non Compliance for the following function(s): 2.3.1
- Entity does not comply with applicable requirement(s) as outlined in Level 4 Non Compliance for the following function(s): \_\_\_\_\_
3. **Requirements In Violation:** List functions and all applicable requirement(s) of the Reliability Standard (Req. 1, 2a,6) for which the function is in violation at the time of this self-report:  
Function: Transmission Owner Req. 3.4.1  
Function: \_\_\_\_\_  
Function: \_\_\_\_\_
4. **Officer Verification:** I understand that this information is being provided as required by the ReliabilityFirst Compliance Monitoring and Enforcement Program. Any future review will require all information certified on this form to be verified by appropriate documentation.

Officer's Name: Dal Poston Officer's Title: Vice President - Central Operations

Officer's Signature:  Date: 6/8/2007

Officer's e-mail address: dposton@duke-energy.com Phone: (704) 382-4623

Entity: Duke Energy Corporation CDMS User ID: CIN

Primary Compliance Contact (PCC)/Alternate: Michael Kuhl / Ed Kirschner

Email: michael.kuhl@duke-energy.com Phone: 513-287-3630

Comment: Supersedes reliability standard self-reporting form submitted to ReliabilityFirst on May 31, 2007

E-mail Submittals to: compliance@Rfirst.org or Fax#: 330-456-3648 -- Attention: Compliance Dept.  
For any questions regarding compliance submittals, please e-mail: compliance@Rfirst.org.

# ATTACHMENT C

**ReliabilityFirst Corporation**  
**TRANSMISSION OWNER**  
**QUARTERLY VEGETATION OUTAGE REPORT**

Quarter: **2nd** Year: **2007**

**Requirements**

All vegetation-related transmission line trips on lines of 200 kV or higher and any other lower voltage lines designated by ReliabilityFirst to be critical to the reliability of the electric system are to be reported to ReliabilityFirst on a quarterly basis by the 20<sup>th</sup> of January, April, July, and October for the previous quarter.

**Reporting Instructions**

All sustained transmission line outages shall be reported where the cause of the outage is contact with vegetation, except:

- Multiple sustained outages on an individual line, if caused by the same vegetation, shall be reported as one outage regardless of the actual number of outages within a 24-hour period.

**Outage Reporting Exceptions**

The following sustained transmission line outages caused by vegetation are not required to be reported:

1. Vegetation-related outages that result from vegetation falling into lines from outside the right-of-way that result from natural disasters shall not be considered reportable  
Examples of disasters that could create non-reportable outages include, but are not limited to, earthquakes, fires, tornados, hurricanes, landslides, wind shear, major storms as defined either by the transmission owner or an applicable regulatory body, ice storms, and floods.
2. Vegetation-related outages due to human or animal activity shall not be considered reportable (examples of human or animal activity that could cause a non-reportable outages include, but are not limited to, logging, animal severing tree, vehicle contact with tree, arboricultural activities or horticultural or agricultural activities, or removal or digging of vegetation).

Reporting Entity: Duke Energy Corporation (on behalf of Duke Energy Ohio, Inc. and Duke Energy Indiana, Inc.)

Reported by: Gary Williams

Title: Director Vegetation Management Midwest

E-mail: Gary.Williams4@duke-energy.com

Phone: 513-287-1124

Date of Report: 7/18/2007

**ReliabilityFirst Corporation**  
**TRANSMISSION OWNER**  
**QUARTERLY VEGETATION OUTAGE REPORT**

**Number of Reportable Vegetation Outages in the quarter as specified above and in accordance with FAC-003-1: 1**

- If there were *no reportable* vegetation related outages for the quarter, then the requirement is complete and this page should be submitted to ReliabilityFirst Corporation.
  - > Email it to [compliance@first.org](mailto:compliance@first.org) and/or fax it to 330-456-3648.
- For *each reportable* outage, proceed to the next page and complete a table for each outage reported.



**Reliability***First* Corporation  
**TRANSMISSION OWNER**  
**QUARTERLY VEGETATION OUTAGE REPORT**

> Please complete this form and email it, along with the cover sheet, to [compliance@rfirst.org](mailto:compliance@rfirst.org) and/or fax it to 330-456-3648.

# ATTACHMENT D

## Mitigation Plan - FAC-003-1 Transmission Vegetation Management Program

Duke Energy Corporation  
NERC Reliability Standard FAC-003-1  
Second Revised Mitigation Plan – June 15, 2007  
Supersedes First Revised Mitigation Plan – June 8, 2007  
and Original Mitigation Plan dated May 31, 2007

Point of Contact: Michael Kuhl (513) 287-3630, Compliance Administration Program Manager

**Statement**

Duke Energy Corporation, on behalf of Duke Energy Indiana, Inc., is hereby self-reporting to ReliabilityFirst that it is non-compliant with a certain requirement of NERC Reliability Standard FAC-003-1. As a Transmission Owner, Duke Energy Corporation is in violation of requirement 3.4.1.

**Purpose**

Standard FAC-003-1, Transmission Vegetation Management Program (TVMP) has been established to improve reliability of the electric transmission system by preventing outages from vegetation located on transmission rights-of-way (ROW) and minimizing outages from vegetation located adjacent to ROW, maintaining clearances between transmission lines and vegetation on and along transmission ROW, and reporting vegetation related outages of the transmission systems to the respective Regional Reliability Organizations (RRO) and the North American Electric Reliability Council (NERC).

**Mitigation Plan Objectives**

The purpose of this Statement is to document the Mitigation Action Plan which describes corrective action taken and communicates completion of the work required in order prevent recurrence of this self reporting violation.

NERC Standard FAC-003-1, and hence this Mitigation Plan, applies to Transmission Vegetation Management Program to improve reliability of the electric transmission systems by preventing outages from vegetation located on transmission ROW's.

**Requirement 3.4.1**

Category 1 — Grow-ins: Outages caused by vegetation growing into lines from vegetation inside and/or outside of the ROW;

**Action Plan for Initial Compliance**

On May 8, 2007, at 12:59 EST, circuit 23015 experienced a sustained transmission line outage caused by vegetation. No customer outages resulted from the outage and the circuit returned to service at 2055 EST.

Trees associated with this outage located within right-of-way of circuit 23015 were trimmed within 24 hours and removed within 14 days of the incident.



## Mitigation Plan - FAC-003-1 Transmission Vegetation Management Program

**Anticipated Impact of Mitigation Plan on the Bulk Electric System**

The anticipated impact of this mitigation plan on the bulk power system reliability is minimal. The physical cause of the alleged or confirmed violation has been removed and an internal task force is conducting an investigation to prevent recurrence.

**Action Plan Timetable**

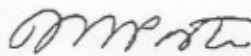
This mitigation plan will be completed without delay but will not be completed prior to certain compliance reporting/assessment periods after occurrence of the violation for which this plan is submitted. ReliabilityFirst requires Duke Energy to provide annual self-certification for FAC-003-1 by June 29, 2007. Additionally, quarterly vegetation reports are due to the Region by July 20, 2007, October 20, 2007 and January 20, 2008.

Duke Energy Corporation respectfully requests ReliabilityFirst accept the below listed mitigation plan timetable. Good cause exists to extend this mitigation plan deadline beyond the above referenced ReliabilityFirst compliance reporting/assessment periods and allow for satisfactory completion of this mitigation plan.

May 11, 2007	Formation of internal investigative task force
May 21, 22, & 23, 2007	Aerial patrol of 230 kV and 345 kV lines completed
June 8, 2007	Initial investigative meeting conducted
June 29, 2007	Complete foot patrols of 230 kV and 345 kV line locations targeted by aerial patrol
July 31, 2007	Internal investigative task force findings complete
August 1, 2007	Begin implementation of investigative task force team findings necessary to ensure full compliance with ERO Reliability Standard FAC-003-1
August 15, 2007	Provide ReliabilityFirst with a more detailed schedule
December 31, 2007	Target date for completion of investigative task force team findings necessary to ensure full compliance with ERO Reliability Standard FAC-003-1.

Officer's Name: Dal PostonOfficer's Title: Vice President - Central Operations

Officer's Signature: \_\_\_\_\_



Date: \_\_\_\_\_

6/15/2007

**ATTACHMENTS E THROUGH J**

**CONTAIN PRIVILEGED AND  
CONFIDENTIAL INFORMATION AND  
CRITICAL ENERGY INFRASTRUCTURE  
INFORMATION AND HAVE BEEN  
REDACTED FROM THIS PUBLIC VERSION**