# Industry Advisory

## On the Need for Rigorous Vegetation Management

Initial Distribution: September 15, 2010

Reports of recent vegetation clearance encroachments prompt NERC to direct Transmission Owners to review their vegetation management activities under Reliability Standard FAC-003-1.

![Why am I receiving this?](http://www.nerc.com/page.php?cid=5|63|253|296)

![About NERC Alerts](http://www.nerc.com/page.php?cid=5|63|253)

<table>
<thead>
<tr>
<th>Status:</th>
<th>No Reporting is Required – For Information Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUBLIC:</td>
<td>No Restrictions</td>
</tr>
<tr>
<td></td>
<td>[More on handling &gt;]</td>
</tr>
</tbody>
</table>

## Instructions:

NERC Advisories are designed to improve reliability by disseminating critical reliability information and are made available pursuant to Rule 810 of NERC’s Rules of Procedure, for such use as your organization deems appropriate. **No particular response is necessary.** This NERC Advisory is not the same as a reliability standard, and your organization will not be subject to penalties for a failure to implement this Advisory. Additionally, issuance of this Advisory does not lower or otherwise alter the requirements of any approved Reliability Standard, or excuse the prior failure to follow the practices discussed in the Advisory if such failure constitutes a violation of a Reliability Standard.

## Distribution:

**Primary Distribution:** Primary Compliance Contacts
- Transmission Owner
  - [Who else will get this alert?](http://www.nerc.com/page.php?cid=5|63|253|298)
  - [What are my responsibilities?](http://www.nerc.com/page.php?cid=5|63|253|298)

## Primary Interest Groups:

Executive Leadership, Lineworkers, and Utility Arborists

## Advisory:

With a recent increase in the number of reports of outages or vegetation encroachments of transmission lines, Transmission Owners (TOs) should review their transmission vegetation management practices they are required to implement under Reliability Standard FAC-003-1 in order to avoid further encroachment related incidents for the remainder of the growing season.

This review is warranted due to the fact that vegetation contacts have directly caused and/or contributed to several events on the bulk power system including the August 14, 2003 blackout affecting the Eastern interconnection.

## Background:

represent a particular concern for bulk power system reliability. Reliability Standard FAC-003-1 was intended to prevent such contacts and associated outages by establishing requirements for TOs to have and implement transmission vegetation management plans (TVMPs) designed to maintain minimum clearances between transmission lines and vegetation.

Over the last three years, there has been a marked decrease in the number of reported tree contacts. In the past year from Q3 2009 to Q2 2010, there were no Category 1 or Category 2 outages. The longer-term trend in the third quarters of each year (Q3) has been a steady decline from 11 Category 1 outages in Q3 2007, to 5 in Q3 2008, and to 0 in Q3 2009.

After a period of improved performance, however, there have been 3 instances of grow-ins in a short time span. The transmission lines involved in these grow-ins are higher voltage, potentially representing a higher risk to cascading issues. Specifically, in three separate regions, grow-ins have been identified on 230 kV, 345 kV, and 500 kV transmission lines. In two of the incidents Category 1 outages were reported and in one incident a flashover occurred indicating that Clearance 2 was not maintained adequately. In addition to these three incidents, there was a recent outage reported in which vegetation made contact with a 230 kV line while an entity was attempting to clear vegetation from an area adjacent to the right-of-way.

These incidents are of concern to NERC, and require renewed focus on the part of TOs, especially during the remainder of this year’s growing season. Given that two of these grow-ins involved trees that were located directly under the transmission lines, it is apparent that TOs should undertake a thorough review of the implementation of their TVMPs to ensure that they have properly and completely followed the requirements.

TOs have an obligation under FAC-003-1 to design and implement TVMPs that ensure adequate vegetation clearances are maintained and to prevent vegetation related outages. In so doing, TOs should review their vegetation management activities recognizing that: (1) visual observation (especially during aerial inspections) may not necessarily provide an accurate assessment of vegetation encroachments; (2) TVMPs should build in quality checks to ensure accurate assessments of possible clearance issues are made as well as assuring the quality of vegetation management work that is performed to restore necessary clearances; and (3) special consideration may be needed to adjust the TVMP for areas that are experiencing, or recently have experienced, unusual weather conditions that might affect vegetation growth, such as an unusual amount of precipitation.

In addition, when a TO experiences or suspects an outage is potentially attributable to a Category 1 or 2 vegetation encroachment, the TO should report it to their Regional Entity within 48 hours pursuant to NERC Public Notice #2008-001 entitled “Vegetation-related Transmission Outage.

---

1 Tree contacts under FAC-003-1 are categorized as follows: Category 1 — Grow-ins: Outages caused by vegetation growing into lines from vegetation inside and/or outside of the ROW; Category 2 — Fall-ins: Outages caused by vegetation falling into lines from inside the ROW; Category 3 — Fall-ins: Outages caused by vegetation falling into lines from outside the ROW.
Also, recognizing that a single vegetation contact may involve a much larger encroachment issue, TOs are expected to take appropriate and timely action to avoid additional contacts.

Great strides have been made in vegetation management in recent years, but continued focus on design and implementation of TVMPs is required to ensure continued success.

Please note that all inquiries regarding this advisory can be addressed to the following NERC Staff.

**Contact:**

Chris Lada  
Situation Awareness Coordinator  
609.452.8191  
chris.lada@nerc.net

To report any incidents related to this alert, contact:  
ES-ISAC 24-hour hotline  
609.452.1422  
esisac@nerc.com

A-2010-09-15-01

You have received this message because you are listed as a primary compliance contact for your organization on the North American Reliability Corporation’s compliance registry. If you believe that you have received this message in error, please notify the sender immediately and delete or otherwise dispose of all occurrences or references to this email. If you have questions about your membership in this list, please contact Chris Lada at NERC by calling 609.452.8191 or emailing Chris directly at: chris.lada@nerc.net.

North American Electric Reliability Corporation  
116-390 Village Blvd.  
Princeton, NJ 08540  
609.452.8060 | www.nerc.com