Unofficial Comment Form

Project 2010-07.1 Vegetation Management

**DO NOT** use this form for submitting comments. Use the [electronic form](https://sbs.nerc.net/) to submit comments on the draft FAC-003-4 Reliability Standard by **8:00 p.m. Eastern, December 16, 2015.**

Documents and information about this project are available on the [project page](http://www.nerc.com/pa/Stand/Pages/Project-2010-07-1-Vegetation-Management.aspx). If you have questions contact Standards Developer, [Sean Bodkin](mailto:sean.bodkin@nerc.net) (via email) or at (202) 400-3022.

## Background Information

In Order No. 777, the FERC directed NERC to provide empirical data validating the gap factor for flashover distances between conductors and vegetation used in the Gallet equation to calculate Minimum Vegetation Clearance Distances (MVCDs) in NERC Reliability Standard FAC-003-2. In the order, FERC directed NERC to submit: (1) a schedule for testing; (2) the scope of work; (3) funding solutions; and (4) a deadline for submitting a final report on the test results to FERC, along with interim reports if a multiyear study is conducted.[[1]](#footnote-1) NERC contracted the EPRI and performed a collaborative research project to complete the work. NERC submitted a compliance filing on July 12, 2013,[[2]](#footnote-2) which FERC accepted on September 4, 2013.[[3]](#footnote-3)

In January 2014, NERC formed an advisory group to develop the scope of work for the project. This team of subject matter experts assisted in developing the test plan, which included monitoring the testing and analyzing the test results to be provided in a final report. The advisory team was comprised of NERC staff, arborists, and industry members with wide-ranging expertise in transmission engineering, insulator characteristics, and vegetation management. The project’s scope of work and the detailed test plan were finalized in March 2014.

The testing project commenced in April 2014 and continued through October 2014, when EPRI completed the prescribed tests to validate the gap factor applied in the Gallet equation. NERC filed an informational filing with FERC on July 31, 2014,[[4]](#footnote-4) that contained the results of the testing work completed to date. The initial analysis, containing preliminary conclusions and recommendations, concluded in early 2015. Based on the preliminary results, the gap factor used in the Gallet equation required modification from 1.3 to 1.0, which would increase the MVCD values compared to those specified in the existing standard.

NERC, through EPRI, performed additional tests in 2015 to finalize the gap-factor verification. NERC proceeded to communicate the research findings to industry through webinars and committee meetings, and issued an industry advisory alert in May 2015.[[5]](#footnote-5) Final testing was completed and an EPRI report was posted on July 21, 2015. The report determined “that the proposed minimum vegetation clearance distances (MVCD), based on a gap factor of 1.3, should be increased and the corresponding gap factor reduced to a more conservative value of 1.0.”[[6]](#footnote-6)

The Vegetation Management Standard Drafting Team (SDT) posted a revised SAR and associated documents for comment August 24 – September 28, 2015. Based on comments received during this posting, the SDT made the following revisions:

* Updated the Gap Factor in Table 2 of FAC-003-4, both in feet and meters.
* Based on feedback received during the advisory group, the SDT added the MVCD up to 15,000 feet and 4,267 meters.
* Updated the term “Planning Coordinator” to “Planning Authority” for consistency purposes with FAC-014, which uses “Planning Authority.” Additionally, the NERC Glossary of Terms states to “See Planning Authority”[[7]](#footnote-7) for the continent-wide term “Planning Coordinator.”
* Updated the Guideline and Technical Basis Section for history purposes and current additions.
* Updated FAC-003 standard to the new Results-Based template. Updated template sections are as follows:
  + Effective date section has been updated to state “See Implementation Plan.” A link to the Implementation Plan will be located in the Associated Documents section of FAC-003-4.
  + Compliance Section has been updated for consistency purposes with the Rules of Procedure.

## Questions

1. Do you agree with the FAC-003-4 table 2 MVCD values? If not, please provide your response below.

Yes

No

Comments:

1. Do you agree with modifying the elevation levels in table 2 to go up to 15,000 feet and 4,267 meters? If not, please provide your response below.

Yes

No

Comments:      

1. If you have any other comments that you haven’t already provided in response to the above questions, please provide them here.

Yes

No

Comments:

1. *Revisions to Reliability Standard for Transmission Vegetation Management,* 142 FERC ¶61, 208. at P 61 (2013). [↑](#footnote-ref-1)
2. [Compliance Filing of NERC](http://www.nerc.com/FilingsOrders/us/NERC%20Filings%20to%20FERC%20DL/FAC-003-2%20Compliance%20Filing.pdf), Docket No. RM12-4-000 (Jul. 12, 2013). [↑](#footnote-ref-2)
3. [*N. Am. Elec. Reliability Corp.*](http://www.nerc.com/FilingsOrders/us/FERCOrdersRules/Letter%20Order%20FAC-003-2.pdf), Docket No. RM12-4-001 (Sept. 4, 2013) (delegated letter order). [↑](#footnote-ref-3)
4. [​Informational Filing of NERC](http://www.nerc.com/FilingsOrders/us/NERC%20Filings%20to%20FERC%20DL/FAC-003-3%20Interim%20Report.pdf), Docket Nos. RM12-4-000 and RM12-4-001 (Jul. 31, 2014). [↑](#footnote-ref-4)
5. [Industry Advisory Alert - FAC-003-3 MVCD](http://www.nerc.com/pa/rrm/bpsa/Alerts%20DL/2015%20Alerts/NERC%20Alert%20A-2015-05-14-01%20FAC-003%20Vegetation%20Management%20Advisory.pdf) [↑](#footnote-ref-5)
6. Electric Power Research Institute. *Supplemental Testing to Confirm or Refine Gap Factor Utilized in Calculation of Minimum Vegetation Clearance Distances (MVCD).* 1-1.<http://www.epri.com/abstracts/Pages/ProductAbstract.aspx?ProductId=000000003002006527> [↑](#footnote-ref-6)
7. Glossary of Terms Used in NERC Reliability Standards (September 29, 2015): <http://www.nerc.com/pa/Stand/Glossary%20of%20Terms/Glossary_of_Terms.pdf> [↑](#footnote-ref-7)