

First Draft of Standards for Vegetation Management (Project 2007-07)

First draft of the FAC-003-2 — Transmission Vegetation Management Program standard for the Vegetation Management Standard Drafting Team (Project 2007-07) is up for a 30-day comment period. Comments must be submitted through the electronic comment form by November 22, 2008. If you have questions please contact Harry Tom at Harry.Tom@nerc.net or by telephone at 860-550-4157

Background Information:

The Standard Drafting Team revised the Vegetation Management Standard in accordance with the Standard Authorization Request. The Standard Authorization Request scope reflects comments from the FERC Order 693 and from stakeholders as well as procedural updates. The Standard Authorization Request also specified that the revised standard incorporate compliance program elements of time horizons, violation severity levels, etc. to bring it into conformance with the latest version of the Reliability Standard Development Procedure and the ERO Sanctions Guidelines. The compliance elements are not included in this initial posting. The Standard Drafting Team has prepared a Technical Reference document to supplement the FAC-003-2 Standard and is posted along with the revised standard. This posting seeks comment on the Standard revision as well as the Technical Reference document.

You do not have to answer all questions. Enter All Comments in Simple Text Format. Insert a “check” mark in the appropriate boxes by double-clicking the gray areas.

1. In the Purpose Statement the term “electric transmission systems” was changed to Bulk Electric System, and the Purpose statement was shortened by moving the various explanatory objectives to other locations in the revised Standard. Do you agree with the purpose statement? If not, please explain.

Agree

Disagree

Comments: The standard specifically calls out that 200kV and higher are applicable to FAC-003. Changing to BES would imply all lines 100kV and above would be applicable

2. The Reliability Coordinator was chosen as the proper entity to identify sub-200kV transmission lines to be subject to this standard (see applicability, R9, and R10). Do you agree with this choice? If not, please explain.

Agree

Disagree

Comments: The MRO disagrees that the RC is appropriately positioned to identify and designate any sub-200kV lines that should be subject to this standard. The MRO believes that the lines below 200kV should include only those that are currently classified as Interconnection Reliability

Operating Limit (IROL) lines which are already defined and listed for registered entities. As such R9 and R10 should be eliminated from this standards along with the RC in the applicability section.

3. In R1 the proposed standard replaces “prepare, and keep current” with “have”, replaces the list of terms, “objectives, practices, approved procedures, and work specifications,” with “designed to control vegetation”, defines the “active transmission line ROW”, and specifies that the transmission vegetation management program applies to that area. Do you agree with R1? If not, please explain.

Agree

Disagree

Comments:

The MRO agrees but requests further clarification on the definition of the term "Active" in Active Transmission Line R.O.W.

For example: A utility has a 150 foot easement for a 230kV line and currently manages 80 feet. First; is it the intent of the standard that the utility manage the entire 150 foot easement? Second; is the entire easement considered the Active Transmission Line R.O.W?

4. Documentation and implementation of the transmission vegetation management program which were previously combined in Requirement R1 are now separated in order to apply appropriate VRFs and time horizons. The implementation of some elements has been moved into standalone requirements such as inspection cycles (R3) and annual plan implementation (R8). Do you agree with these revisions and separation? If not, please explain.

Agree

Disagree

Comments: The MRO believes that clarity was improved by separating documentation and implementation. The MRO suggests that moving the requirement for implementation so that it immediately follows the requirement for documentation will further enhance clarity.

5. In R1.2 the Transmission Owner is required to have an inspection frequency of at least once per calendar year. Do you agree with R1.2? If not, please explain.

Agree

Disagree

Comments: The MRO suggests rewording the requirement to remove ".. and environmental" . The MRO believes that local factors includes environmental.

6. In R1.3 the Standard requires that transmission vegetation management program specify an Annual Plan and specifies parameters for the plan. Implementation of the Annual Plan is separated and placed in R8. Do you agree with R1.3 and the separation of the implementation from the specification of the Annual Plan? If not, please explain.

Agree

Disagree

Comments: The MRO suggests removing the words "during the year" from sentence 1 and removing the words "within the year" in sentence 3. The MRO believes that having it only within the plan year is too restrictive.

7. In R1.4 the Standard requires the Transmission Owner to have an Imminent Threat Procedure and specifies elements to be in that procedure. Do you agree with R1.4? If not, please explain.

Agree

Disagree

Comments: The MRO agrees and believes that it is very important for the applicable entities to possess a Imminent Threat Procedure. The MRO also believes that the term "Imminent Threat" is subjective and should be defined.

8. Requirement 1 section R1.5 replaces Version 1 sub-requirement R1.4. This section is now referred to as interim corrective action process. This process addresses situations where vegetation maintenance activities cannot be performed as planned. The term corrective action plan is used in lieu of mitigation plan to avoid confusion with other uses in NERC of "mitigation plan". Do you agree with R1.5? If not, please explain.

Agree

Disagree

Comments: The MRO believes that the term "interim" should be removed from R1.5. The term Interim is subjective.

9. Clearance 1 in Version 1 was a "fill-in-the-blank" requirement and was removed from the standard. Do you agree? If not, please explain. Agree

Agree

Disagree

Comments: The MRO agrees and fully supports the removal of Clearance 1. The MRO believes that the Gallet equation is a more effective way of determining the required clearances.

10. Personnel Qualifications in R1.3 in Version 1 was a “fill-in-the-blank” requirement and was removed from Version 2 of the standard. Do you agree? If not please explain.

Agree

Disagree

Comments:

11. The IEEE 516 standard distances were replaced with the Gallet equation distances. Clearance 2 was replaced by the Critical Clearance Zone. The Critical Clearance Zone is defined as the zone of all possible positions of the conductor at the line’s designed operating ratings including wind factors. (Please refer to pages 22-32 in the Technical Reference Document on the Critical Clearance Zone for further background for this question.) The imminent threat procedure, R2, requires action to be taken to prevent an outage when the Critical Clearance Zone is approached. Do you agree with R2? If not please explain.

Agree

Disagree

Comments: The MRO agrees and believes that the Gallet equation yeilds a less subjective measurement.

The MRO believes R2 should be modified to be more definitive. The imminent threat procedure should be implemented when vegetation “enters” the critical clear zone. Fines and violations for approaching the zone is not measurable or enforceable.

The MRO believes that "approached" is subjective and not enforceable and should be removed from the requirement.

12. The Standard Drafting Team revised the spark-over (also referred to as “flashover”) distance thresholds utilizing technically-equivalent Gallet equations in lieu of IEEE 516 minimum air insulation distance (MAID) calculations that were used in FAC-003-1. The rationale is that the minimum air insulation distances in IEEE 516 were safety clearances developed under laboratory conditions and thus there exists concern these distances may be too conservative to apply to lines operating in actual field conditions. Do you agree with this? If not, please explain.

Agree

Disagree

Comments:

13. The Standard Drafting Team applied a transient overvoltage factor (T) of 1.4 and 2.0 for ac voltage classes of 345kV and above and sub-345kV facilities, respectively. Version 1, using the IEEE 516 method, assumes a maximum transient overvoltage value. The Standard Drafting Team asserts that in this application of steady-state flashovers and due to the design attributes of higher voltage systems, a lower T factor is applicable. Do you agree with this? If not, please explain.

Agree

Disagree

Comments:

14. R3 has been added to clarify that conduction of inspections is a separate requirement from specifying the frequency that inspections will occur. Do you agree with R3? If not please explain.

Agree

Disagree

Comments:

15. Several alternatives to R4 were considered by the drafting team. The drafting team explored these significantly different alternatives at length. They are outlined below to provide background to industry during this comment period. (Please refer to pages 22-32 in the Technical Reference Document on the Critical Clearance Zone for further background for this question.)

- As written, R4, a new requirement, stipulates that the Transmission Owner is in violation if an encroachment of the Critical Clearance Zone occurs at any time. If vegetation enters the Critical Clearance Zone, a violation will have occurred, regardless of the actual proximity of the vegetation to the conductor at the time. Evidence will be required to prove that no encroachments of the Critical Clearance Zone have occurred anywhere at any time during the annual compliance period. This will require the time and effort to postpone vegetation maintenance to perform field investigations and document all possible encroachments.
- One alternative to R4 required immediate removal of the vegetation or immediate implementation of the imminent threat procedure upon discovery of a possible encroachment of the Critical Clearance Zone, thereby proactively preventing an outage. A violation would have occurred only if the imminent threat process was not successfully implemented.
- Another alternative was a tiered approach. This tiered approach involved a “per thousand mile” metric to determine when a violation had occurred and the severity of

the violation. This metric was an attempt to equitably account for varying exposures that exist due to widely ranging system sizes.

Do you agree that R4 is written in the most effective way to achieve the purpose of the standard? If not, what do you propose as an alternative to R4 that would ensure a level of reliability equal to or better than FAC-003-1?

Agree

Disagree

Comments: The MRO believes R4 should be eliminated as vegetation contacts are covered in R5 and R6. A violation should only occur with a vegetation contact. Assessing a violation and fine for a potential reduction in system reliability is not correct. Actual contacts that trip a transmission element have some measurable impact on system reliability even if it is slight.

16. Requirements R5, R6, and R7 define that Sustained Outages due to vegetation growing into, blowing together with, and falling into transmission lines are violations (subject to certain exemptions). Therefore, all such outages must be reported as violations of the standard. Do you agree with this change? If not, please explain.

Agree

Disagree

Comments:

17. R8 is a new requirement which separates the implementation of the annual plan from the requirement to have an annual plan. Do you agree with R8? If not please explain.

Agree

Disagree

Comments: The MRO both Agrees and Disagrees. The MRO agrees with the separation between having an annual plan and implementing it. However, the MRO suggests removing all the words after vegetation management.

18. If you have further suggestions for improving this standard or the technical reference document, please offer them.

Comments: