Vegetation Management Distribution Inspection Procedure

Attachment 8, Vegetation Management Operational Mitigation (VMOM) Procedures

This attachment provides procedures for performing Vegetation Management Operational Mitigation (VMOM) inspections and prescriptions on Enhanced Powerline Safety Setting (EPSS)–enabled electric facilities.

VMOM activities are performed when EPSS-enabled circuits experience vegetation-related outages. These activities are divided into two types of projects:

- **VMOM Reactive Projects**: Patrols and tree work at the locations of vegetation-caused EPSS outages.

  On these patrols, Vegetation Management Inspectors (VMI) identify the tree that caused the EPSS outage and all trees with similar symptoms and conditions as the tree that caused the outage. The VMIs also prescribe work, as necessary, to mitigate the risk trees might cause.

  VMOM reactive patrols are conducted on five spans in each direction from the location of the tree that caused the EPSS outage.

- **VMOM Proactive Projects**: Patrols of the entire Circuit Protection Zone (CPZ) identified by the Vegetation Assets Strategy and Analytics (VASA) team. Proactive projects address historic vegetation-caused outages. The scope of work for Proactive Projects is determined by the tree failure history for the circuit.

TARGET AUDIENCE

Vegetation Management Inspectors (VMI)

BEFORE YOU START

- All individuals must complete PG&E Academy training required for inspections prior to performing this procedure. Training expectations are available at Training Expectations.
- VMI are required to update VM Certification in Structured Learning Path (SLP).

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PROCEDURE STEPS

1 Performing Reactive Project Inspections

1.1 What to Inspect

- The tree that caused the EPSS outage.
- All trees within five spans in each direction from the location of the outage-causing tree.

> **NOTE**
>
> The patrol area starts at the tree failure span and then, starting with the first span on each side of the incident span, goes five spans in each direction. If patrols reach intersections, patrols continue an equal number of spans in each direction.

- Vegetation (categorized as either a whole tree or portion of tree) that may fail, fall into, or otherwise impact PG&E electric facilities.

1.2 Inspecting Vegetation

1. The VMI must PERFORM the following steps:

   a. GO TO the tree failure location AND IDENTIFY the tree that caused the outage.

   b. CONDUCT a Level 2 assessment of that tree.

   c. CONDUCT a Level 2 assessment of ALL trees of the same species with similar characteristics as the tree that caused the outage within the multi-directional 5-span patrol area.

   d. CONDUCT the following assessments:

      (1) A Level 1 assessment on ALL other trees within the 5-span patrol area.

      (2) IF (while performing the Level 1 inspection) the VMI identifies a tree or trees with conditions found in the Hazard Trees/Vegetation Clearance section of the "California Power Line Fire Prevention Field Guide" (see Appendix B, Overview of Tree Defects and Site Conditions, of TD-7102P-01, "Vegetation Management Distribution Inspection Procedure"),

      THEN PERFORM a Level 2 assessment of that tree.

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e. IF any of the vegetation affects distribution facilities such that it requires Priority 1 or Priority 2 mitigation,

THEN the VMI must REFER to Utility Procedure TD-7102P-17, "Vegetation Management Priority Tag Procedure."

f. IF patrols identify abnormal hardware conditions,

THEN the VMI must REFER to Utility Procedure TD-7102P-09, "Reporting Abnormal Field Conditions for Vegetation Management."

2 Performing Proactive Project Inspections

2.1 What to Inspect

- Vegetation (categorized as either a whole tree or portion of tree) that may fail, fall into, or otherwise impact PG&E electric facilities.

2.2 Inspecting Vegetation

1. The VMI must GO TO the assigned CPZ and PERFORM a Level 1 visual inspection of the vegetation surrounding the facilities.

2. On overhead electric distribution primary and secondary conductors and facilities (excluding service drops), IDENTIFY trees that may fail, fall into, or contact the line:

   - Dead trees or portions of trees that are rotten or weakened by decay or disease.

   - Rotten or diseased portions of trees that overhang or lean (due to outside influences: soil structure, soil heaving, weather conditions, cracking, breaking, etc.) toward the line (refer to Appendix E, Information About Tree Lean, in TD-7102P-01, "Vegetation Management Distribution Inspection Procedure").

   - Structural defects (branch attachment angles, elongated limbs over conductors, included bark, epicormic sprouts, etc.) on limbs or portions of trees that may lead to failures.

NOTE

Apply increased scrutiny to species listed for the failure types listed in the outage cause breakdown tables in Section 4 below.

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3. IF (while performing the Level 1 inspection) the VMI identifies a tree or trees with conditions found in the Hazard Trees/Vegetation Clearance section of the "California Power Line Fire Prevention Field Guide" (see Appendix B, Overview of Tree Defects and Site Conditions, in TD-7102P-01, "Vegetation Management Distribution Inspection Procedure"),

   OR IF, based on VMI judgement, they suspect a tree may have one or more of those conditions,

   THEN PERFORM a Level 2 assessment.

4. CONDUCT a Level 2 assessment on ALL overhanging trees.

5. IF any of the vegetation affects distribution facilities such that it requires Priority 1 or Priority 2 mitigation,

   THEN the VMI must refer to Utility Procedure TD-7102P-17, "Vegetation Management Priority Tag Procedure."

6. IF the VMI identifies abnormal hardware conditions,

   THEN, FOLLOW the reporting procedure in TD-7102P-09, "Reporting Abnormal Field Conditions for Vegetation Management."

3 Prescribing Work

3.1 Using the information gathered in section 1.2 or 2.2 above and their professional judgement, the VMI must DETERMINE which of the two options below applies to the vegetation,

AND PERFORM the steps in that option.

NOTE
Use a 15-month timeframe to inform all prescriptions.

1. Prescribing VMOM Work

   a. The VMI must prescribe the following work in the system of record, as necessary:

   - Pruning or removal to remove symptoms and conditions causing outages.
   - Pruning or removal to INCREASE vertical clearances or clear vertical plane to reduce branch failure-related outages.

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b. IF no prescription is needed,

THEN GO TO the next tree.

2. Prescribing Non-VMOM Work

a. The VMI must FOLLOW the procedures in the section titled “Prescribing Work” in TD-7102P-01, “Vegetation Management Distribution Inspection Procedure.”

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4 2020-2023 Vegetation Outage Data for Proactive Projects

GREEN VALLEY 2101	51
ACACIA, Black Wood	**1**
BranchFail	1
ALDER	**1**
TrunkFail	1
COTTTONWOOD, Black	**1**
RootsFail	1
COTTONWOOD, Fremont	
TrunkFail	1
CYPRESS	**2**
TrunkFail	2
EUCALYPTUS	**7**
Bark	1
BranchFail	2
TrunkFail	4
EUCALYPTUS, Blue Gum	**3**
TrunkFail	3
MADRONE	**3**
TrunkFail	3
MAPLE, Big Leaf	**1**
TrunkFail	1
OAK, Canyon Live Oak	**5**
RootsFail	2
TreeGrew	1
TrunkFail	2
PALM, Fan Palm	**1**
PalmFrond	1
PALM	**1**
BranchFail	1
PINE	**2**
PGECont	1
TrunkFail	1
PINE, Monterey	**2**
RootsFail	1
TrunkFail	1
REDWOOD	**10**
BranchFail	8
RootsFail	1
TrunkFail	1
SYCAMIORE	**1**
BranchFail	1
TAN OAK	**4**
TrunkFail	4
WILLOW	**3**
TrunkFail	3
(blank)	**2**
Unverified	2

BIG BASIN 1101	67
ACACIA	**1**
BranchFail	1
ALDER	**1**
TrunkFail	1
BAY	**1**
RootsFail	1
CYPRESS, MONTEREY	**1**
TrunkFail	1
FIR, DOUGLAS	**12**
3rdParty	1
BranchFail	4
RootsFail	2
TrunkFail	5
MADRONE	**2**
RootsFail	1
TrunkFail	1
OAK	**3**
TrunkFail	3
OAK, Canyon Live Oak	**9**
RootsFail	3
TrunkFail	6
OAK, Interior Live Oak	**1**
TrunkFail	1
PINE	**1**
BranchFail	1
REDWOOD	**21**
BranchFail	18
RootsFail	1
TrunkFail	2
TAN OAK	**5**
BranchFail	1
TrunkFail	4
(blank)	**9**
Unverified	9

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LAURELES 1111	8
COTTONWOOD	**1**
BranchFail	1
EUCALYPTUS	**1**
TrunkFail	1
OAK	**3**
BranchFail	1
TreeGrew	1
TrunkFail	1
OAK, Coast Live Oak	**1**
TrunkFail	1
OAK, Valley Oak	**1**
BranchFail	1
WILLOW	**1**
BranchFail	1

TEMPLETON 2110	11
OAK, Coast Live Oak	**6**
BranchFail	1
RootsFail	1
TrunkFail	2
Unverified	1
WindBlew	1
OAK, Valley Oak	**2**
RootsFail	1
TrunkFail	1
WILLOW	**1**
RootsFail	1
(blank)	**2**
Unverified	2

MORGAN HILL 2111	8
EUCALYPTUS	**1**
BranchFail	1
REDWOOD	**1**
BranchFail	1
TAN OAK	**1**
TrunkFail	1
(blank)	**5**
Unverified	5

BELLEVUE 2103	9
BAY	**2**
RootsFail	1
TrunkFail	1
OAK, Oregon White Oak	**1**
BranchFail	1
TAN OAK	**1**
WindBlew	1
(blank)	**5**
Unverified	5

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NARROWS 2105	52
(blank)	**21**
blank	5
Unverified	16
COTTONWOOD	**1**
BranchFail	1
OAKD	**3**
BranchFail	3
OAK, Interior Live Oak	**4**
RootsFail	1
TrunkFail	3
Black Oak	**5**
BranchFail	3
RootsFail	1
TrunkFail	1
OAK, Live Oak	**7**
BranchFail	3
PGECont	1
RootsFail	3
OAK, Valley Oak	**3**
BranchFail	3
Gray Pine	**6**
BranchFail	4
RootsFail	2
Ponderosa Pine	**2**
3rdParty	1
TrunkFail	1

PANORAMA 1102	6
DEODORA	**1**
BranchFail	1
Ecalyptus, Blue Gum	**1**
BranchFail	1
OAK, Valley Oak	**2**
BranchFail	1
RootsFail	1
(blank)	**2**
Unverified	2

SILVERADO 2102	19
EUCALYPTUS	**1**
BranchFail	1
FIR, Douglas Fir	**1**
RootsFail	1
Madrone	**1**
RootsFail	1
OAK, Coast Live Oak	**4**
BranchFail	1
RootsFail	2
TrunkFail	1
OAK, Live Oak	**1**
TrunkFail	1
OAK, Valley Oak	**4**
BranchFail	4
SYCAMORE	**2**
BranchFail	2
(blank)	**5**
Unverified	5

5 Revision Notes

Where?	What Changed?
Entire document.	Original publication.