SUMMARY

This Business Process Document specifies how Quality Assurance Vegetation Management-Asset (QAVM-Asset) performs regulatory compliance audits of vegetation line clearance activities along overhead electric distribution lines and transmission lines. Following this procedure ensures compliance with PG&E Internal procedures documents and legal requirements.

Level of Use: Informational Use

TARGET AUDIENCE

Distribution: All personnel who perform QAVM-Asset Regulatory Compliance Audits.

Transmission: All Compliance and Risk Consultants (CRC) and Audit Lead who perform VMSI Compliance Audits.

QUALIFICATIONS

International Society of Arborists (ISA) Certified Arborist

All those participating in audits must attend annual procedure trainings

TOOL AND INSTRUMENTS CALIBRATION

- Phone or tablet with access to PG&E approved apps
- Personal locator beacon or similar device (e.g., Garmin)
- Tree population counter
- Diameter at Breast Height (DBH) tape
- Flagging
- Range finder

SAFETY

Safety requirements are outlined in SAFE-5000M, “PG&E Safety Excellence Management System Manual (PSEMS)”.

Always consider safety before the start of field work. Determine necessary personal protective equipment (PPE) and potential safety issues before beginning field work. Obtain as much information as practical concerning safety where work is to be performed.

Discuss this information with local management personnel for clarification.

When working in remote areas, notify a VM or Quality Assurance (QA) representative of the work location, wear a personal locator beacon or similar device (e.g., GARMIN), and

always perform a 360-degree vehicle walk-around inspection before entering the vehicle and driving.

If a situation is potentially unsafe, alert the QA Supervisor.

BEFORE YOU START

N/A

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PROCEDURE STEPS

1 DEFINE THE AUDIT SCOPE

1.1 Audit scope may be DETERMINED at the discretion of QAVM-Asset supervision.

2 CREATE AUDIT PLAN

2.1 The separate objectives for Distribution and Transmission are in Table 1.

Table 1

Distribution	Transmission
QAVM-Asset Analyst Team conducts Distribution Sample generation and provides Compliance and Risk Consultants (CRC) with sample locations for their given audits.	• Analyst team requests appropriate transmission layers from GIS. • Audit Lead creates samples based on supervisor approved scoping. • Audit Lead provides CRCs with randomized audit samples in a usable format.

2.2 CREATE an Audit Plan and Sample Equation Worksheet with documented QAVM-Asset supervision approval.

3 PREPARE THE SAMPLE

3.1 QUERY VM databases for information on each sample location.

- Safety information (e.g., Notify First, Refusals, Bad Dog, Concerned Customer).
- Customer notification and contact information.
- Access information (e.g., gate codes).
- Location comments.
- Major Woody Stems (MWS) (Distribution Audits only)
- Other location/tree alert codes as necessary (e.g., endangered species, riparian).

3.2 CONTACT local VM Execution personnel for additional detailed location information as needed.

3.3 PLOT waypoints using preferred navigation tool.

4 CONDUCT AN ENTRANCE MEETING

4.1 SCHEDULE an entrance meeting with VM Execution leadership and any other stakeholders as needed.

4.2 CONDUCT the entrance meeting using entrance meeting template.

4.3 DOCUMENT, STORE and DISTRIBUTE meeting contents.

5 COLLECT DATA

5.1 CONSIDER the following when observing vegetation clearances along a sample line:

- Tree-to-line proximity.
- Annual tree growth.
- Tree health and failure potential.
- Tree movement due to wind.
- Conductor sag.
- Conductor sway.

5.2 IF a portion of a sample line is considered unsafe, or does not meet audit criteria, alternate locations may be utilized as necessary at QAVM-Asset Supervisor discretion.

Any other changes made to the original audit sample are communicated between VM Execution and QAVM and appropriately documented.

5.3 DETERMINE appropriate tree populations for each sample line.

IF an accurate tree population can't be obtained in the field, THEN DETERMINE a base or estimated count using alternate sources (e.g., Google Earth).

COLLECT a Grow-In population for individual trees/brush units where the following applies:

- Trees with a DBH of 4 inches or greater:
    - Any living tree that has received utility pruning in the past for high-voltage or secondary conductor clearance, regardless of current clearance to the conductors.

      OR

    - Any living tree (regardless of pruning history) that has the potential to grow within the high-voltage conductor's compliance zone within **2** years of QAVM-Asset observation.

        - Include any fast-growing species (eucalyptus, topped redwoods, etc.) that have the potential to become non-compliant within **3** years.
        -
    - Vegetation with a DBH of less 4 inches is considered “brush”. A single brush unit will count as any group of vegetation with a continuous canopy whose total area is 270 cubic feet.
        - Use the formula Length x Width x Height, divided by 270
            - Example: a **15** foot long, **10** feet wide, and **30** feet tall group of brush vegetation would be considered **16.67** units of brush. Rounded up to a whole number, this would be **17** units of brush.
        - If any trees with a DBH of 4 inches or greater are observed within the brush clump, and meets the population criteria, those trees will count as individual members of the tree population and not part of the brush clump.

COLLECT a Fall-In population for trees/brush where the following applies:

- Any tree/brush clump (regardless of health or vigor) which is tall enough to cause flashover or cause consequences if the vegetation were to fail towards PG&E equipment.
    - Trees with a significant lean away from PG&E equipment or otherwise do not pose a threat PG&E facilities (again to align with QM document) do not need to be included in the Fall-In population.

6 RECORD AND ANALYZE DATA

6.1 CLEARLY MARK findings identified in the field.

6.2 DOCUMENT findings in appropriate databases.

6.3 ANALYZE findings data and perform cause analysis, as necessary.

6.4 COMMUNICATE audit progress and findings to appropriate parties.

6.5 ALLOW VM Execution personnel the opportunity to DISPUTE non-compliant findings within the accepted time limit.

6.6 RECORD audited sample line sections.

7 CONDUCT AN EXIT MEETING

7.1 SCHEDULE exit meeting with VM Execution leadership and other stakeholders as needed.

7.2 PREPARE presentation to communicate audit results.

7.3 CONDUCT the exit meeting using exit meeting template.

7.4 DOCUMENT, STORE and DISTRIBUTE meeting contents as appropriate.

8 COMPOSE AN AUDIT REPORT

Report is prepared by the designated lead auditor.

8.1 INSERT audit data into template features, as applicable.

8.2 SUBMIT the audit report to QAVM-Asset personnel for PEER REVIEW and UPDATE report as necessary.

8.3 ASSIGN corrective/preventive actions as appropriate

8.4 SUBMIT the audit report to the QA Supervisor for review and approval.

9 CLOSE THE AUDIT

9.1 COMPLETE current version of audit completion checklist as applicable.

END of Instructions

DEFINITIONS

Compliance: Fulfilling the requirements stated in laws and regulations (e.g., G.O. 95, Rule 35 and PRC 4293).

IMPLEMENTATION RESPONSIBILITIES

The QAVM-Asset Supervisor is responsible for ensuring all auditors read and understand the content of this Business Process Document.

COMPLIANCE REQUIREMENT / REGULATORY COMMITMENT

General Order (GO) 95, Rule 35 (ca.gov)

California Public Resources Codes (PRCs) 4293 - 4296

North American Electric Reliability Corporation (NERC) Reliability Standard FAC-003-4, "Transmission Vegetation Management"

RECORDS AND INFORMATION MANAGEMENT:

Information or records generated by this document must be managed in accordance with the Enterprise Records and Information (ERIM) program Policy, Standards, and Enterprise Records Retention Schedule (ERRS). REFER to GOV-7101S, "Enterprise Records and Information Management Standard" and related standards. Records Management includes, but is not limited to:

- Integrity
- Storage
- Retention and Disposition
- Classification and Protection

REFERENCE DOCUMENTS

- Utility Procedure TD-7102P-01, "Vegetation Management Distribution Inspection Procedure" (and all associated bulletins and job aids)
- Utility Procedure TD-7103P-01 "Vegetation Management Transmission Inspection Procedure" (and all associated bulletins and job aids)
- Utility Procedure TD-7102P-17 "Vegetation Management Priority Tag Procedure"

PG&E Inspection Contracts - Specification No. 4851

PG&E Tree Trimming Contracts – Specification No. 5404

Browse - California Code of Regulations (westlaw.com)

APPENDICES

N/A

ATTACHMENTS

N/A

DOCUMENT RECISION

This utility procedure supersedes Utility Procedure RISK-6301P-06, “Quality Assurance Vegetation Management Distribution Audit Procedure,” Rev.3, Published 01/14/2021.

RISK-6301P-07, “Quality Assurance Vegetation Management System Transmission Audit Procedure,” Rev.0, Published 11/29/2021.

DOCUMENT APPROVER

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REVISION NOTES

Where?	What Changed?
New Document	N/A. New Document published 8/18/2023.
Summary	11/27/2024: Removed language referring to MID, moved links to “References Documents” section.
Safety	11/27/2024: Removed language referring to MID.
Collect Data	11/27/2024: Expanded section 5.3, defining tree populations.
Governing Document	11/27/2024: Removed former governing document, as it was no longer valid.
Document Approver/Owner	11/27/2024: Updated Document Approver and Owner to current director for QAVM-Asset.