TD-2305M

Electric Distribution Preventative Maintenance Manual

“Zero in on Safety”

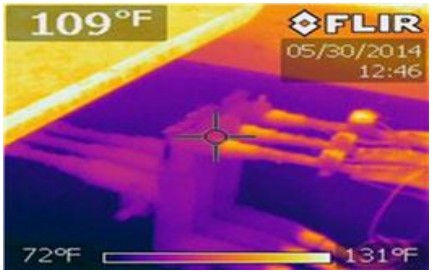


Table of Contents

1 Summary 5
2 Target Audience 5
3 Safety 5
4 Before You Start 5
4.1 PG&E's G.O. 165 Program 6
Inspector Qualifications and Training 7
G.O. 165 Program Elements 7
4.2 Roles and Responsibilities–Compliance Inspector 7
Training Offerings Overview 7
SAFE-3050, "System Inspection Onboarding" 8
ELEC-1000, "New Electric Compliance Inspector Training" 8
TECH-0020, "Compliance Inspector Refresher" 8
5 Core 9
5.1 Map Packages 9
Definition of a Map Package 9
Examples of OH Patrol Map Package 10
Examples of Underground Map Package 10
Requirements for a Map Package 11
Map Package Process: Overview 13
Map Package Process: Supervisor 14
Map Package Process: Clerical 15
5.2 Patrols 21
12+3 Due Date for Patrols and Inspections 21
Requirements 22
Compliance Inspector Tasks 23
Performing Overhead Patrols 23
Performing Underground Patrols 24
Patrol Documentation Requirements 24
5.3 Inspections 25
When to Inspect 25
Requirements 25
When to Clean Debris or Pump Water to Perform UG Inspections 26
Compliance Inspector Tasks 27
Identify and Document Field Scenarios 28

Performing Overhead Inspections 29
Performing Underground Inspections 29
Inspection Documentation Requirements 30
5.4 Paper Map Process Flow 31
5.5 Cannot Get In/Cannot Locate 32
Requirements for CGI or CL Conditions 34
Recommended Workflow Steps 34
CGI–Customer Access Issue 35
CGI–Customer Refusal 35
OH Inspection/OH Patrols: CGI–Non-Customer Related 36
CGI–Tools to Help You Gain Access to the Structure 37
CGI–Law Enforcement Alert 37
5.6 Map Corrections 37
Common Map Correction Triggers 38
GIS vs. CAD Map Symbols 39
5.7 Minor Work 39
Examples of OH Inspection Minor Work 40
Examples of UG Inspection Minor Work 42
Requirements for Minor Work During Inspections 43
Requirements for Minor Work during Patrols 44
Minor Work Process 45
How to Record Minor Work 46
Recommended Workflow Steps 46
Timekeeping 49
6 Assessments, Notifications, and Forms 49
6.1 Addressing Emergencies 49
6.2 Vegetation Management Form vs EC Work Form 49
6.3 Pending EC Field Validation 50
6.4 Links to Inspector Job Aids 50
6.5 Infrared Assessments 50
Equipment 51
Requirements 52
IR Scanning Technique 52
IR Reference Documents and Links 52
6.6 Forms Catalogue 52
7 Document Information 53

7.1 Definitions 53
7.2 Implementation Responsibilities 56
7.3 Governing Documents 56
7.4 Compliance Requirement / Regulatory Commitment 56
Record Retention Requirements 56
G.O. 165 Record Retention Guidelines 57
7.5 Reference Documents 58
Developmental References 58
Supplemental References 58
7.6 Appendices 59
7.7 Attachments 59
7.8 Document Recision 59
7.9 Document Approver 59
7.10 Document Owner 60
7.11 Document Contact 60
7.12 Revision Notes 60

1 Summary

This manual provides guidance and instruction about the requirements of the G.O. 165 Program to perform and document patrols and inspections. This manual also provides guidance about how to assess and document field conditions that meet the criteria for a compelling abnormal condition**,** per Job Aid TD-2305M-JA02, "Overhead Assessment," that pose a safety or reliability risk based on the following:

- The abnormality encountered
- Risk if the condition continues to deteriorate
- The risk of exposure to the public, workers, or personnel

Level of Use: Informational Use

2 Target Audience

System Inspection personnel and System Inspection compliance inspectors

3 Safety

This section describes PG&E's safety programs.

Safety is about protecting PG&E facilities, the public, and all personnel.

Any time a possibly unsafe situation is identified, personnel must immediately proceed to a safe location and contact a supervisor for assistance.

4 Before You Start

Maintain Compliance Inspector (CI) qualification:

- Before conducting patrols or inspections, PG&E compliance inspectors or other PG&E personnel, hiring hall, and contract personnel are required to be current with their journeymen classification and pass the initial compliance training.

Driving and vehicular safety:

- Whether driving to perform work described in this handbook or to wherever the destination may be, driving should never be considered routine.
- Refer to Utility Standard SAFE-1002S, "Motor Vehicle Safety Standard," for more information.

Wear Personal Protective Equipment (PPE):

- PPE was designed for personnel safety.
- Personnel must wear PPE and any additional safety equipment their supervisors require while working in the field or performing a specific task.

Beware of job site/work site/location safety hazards:

- Safety hazards vary depending on the specific task being performed. Always maintain situational awareness and use Keys to Life to maintain personnel and customer safety.

More information and resources:

- Training courses:
  - SAFE-3050, “System Inspections Onboarding”
  - ELEC-1000, “New Electric Compliance Inspector”
- Smart Mobile Workforce (SMW)
- Code of Safe Practices (CSP)
- Safety Handbook

4.1 PG&E’s G.O. 165 Program

This section summarizes PG&E’s G.O. 165 Program.

PG&E’s G.O. 165 Program is focused on safety and reliability.

The General Order (G.O.) 165 Program is primarily focused on the identification, prioritization, and documentation of compelling abnormal conditions, opportunity work, and third-party-caused infractions that negatively impact safety or reliability. These conditions are identified during patrols and detailed inspections of PG&E’s distribution facilities and may occur as a result of operational use, degradation, deterioration, environmental changes, or third-party actions.

The G.O. 165 Program does not identify all G.O. 95 and 128 infractions.

When new facilities are constructed or reconstructed, they are built to the G.O.s and per company standards in effect at the time of construction. PG&E’s experienced and skilled journey-level workers are instructed and trained on the G.O.s/standards, and their work is subject to review to ensure compliance.

Additionally, several preventative and corrective maintenance programs are focused on maintaining assets, replacing assets, or performing targeted service reliability improvements, such as the Pole Test and Treat Program and line equipment inspections and testing.

This allows the compliance inspectors conducting G.O. 165 patrols and inspections to focus on safety, reliability, and ignition risk.

Inspector Qualifications and Training

Detailed inspections are an essential element of PG&E's overall maintenance program. Compliance inspectors must complete at least 3 years of classroom and supervised field training to achieve the journeyman classification. In addition, compliance inspectors receive special training targeted to the maintenance and inspection process with an emphasis on identifying conditions that would negatively impact safety and reliability. They are further trained how to prioritize all work necessary at each location.

G.O. 165 Program Elements

Table 1. G.O. 165 Maintenance Program

Patrols	• **Description:** Maintenance activities that include a simple, visual examination of applicable overhead (OH) and underground (UG) facilities to identify obvious structural problems and hazards. • **Preventative:** Perform scheduled patrols. • **Corrective:** Report compelling abnormal conditions and third-party-caused infractions. • **Standard:** Utility Manual TD-2305M, *Electric Distribution Preventative Maintenance ("EDPM Manual")* (this document)
Inspections	• **Description:** Maintenance activities that include a careful examination of individual components, structures, and equipment through visual observation and/or routine diagnostic tests. • **Preventative:** Perform scheduled inspections. • **Corrective:** Report compelling abnormal conditions, opportunity work, and third-party-caused infractions. • **Standard:** Utility Manual TD-2305M, *Electric Distribution Preventative Maintenance ("EDPM Manual")* (this document)

4.2 Roles and Responsibilities–Compliance Inspector

This section describes the training requirements for compliance inspectors.

Training Offerings Overview

The following training modules and courses are offered:

- SAFE-3050, “System Inspection Onboarding”
- ELEC-1000, “New Electric Compliance Inspector Training”
- TECH-0020, “Compliance Inspector Refresher Training”
- Contractors:
    - SAFE-3050, “System Inspection Onboarding”
    - ELEC-0341, “System Inspection Elec Dis Day-2”
    - ELEC-0342, “System Inspection Elec Dis Day-3”

Note: In some cases, refresher training may be deferred by leadership due to updates to the *EDPM Manual*, etc.

SAFE-3050, “System Inspection Onboarding”

This module is for personnel new to the compliance inspector position. The course provides a program overview and safety considerations and mitigation strategies for common hazards encountered during the job.

Course code: SAFE-3050, “System Inspection Onboarding”

ELEC-1000, “New Electric Compliance Inspector Training”

This module is for personnel new to the compliance inspector position. The course provides both the procedures and the standards for patrols and inspections.

Upon successful completion of this course and the test, personnel are qualified to perform patrols and inspections.

Course Code: ELEC-1000, “New Electric Compliance Inspector”

TECH-0020, “Compliance Inspector Refresher”

This module may be provided annually for current compliance inspectors. It provides an overview of existing training and specific information about any changes to the patrol and inspection process and other content from audit findings, work verification results, company initiatives, etc., selected by leadership as needed.

Note: In some cases, refresher training may be deferred by leadership due to updates to the *EDPM Manual*, etc.

5 Core

5.1 Map Packages

This section describes the activities required by the compliance inspector to complete overhead (OH) and underground (UG) patrols.

Before beginning this section, compliance inspectors must complete the following:

- Read Section 3, “Safety,” on Page 5.
- Wear the appropriate personal protective equipment (PPE) for a specific task or work area.
- Review the assigned map/maintenance plan (MP).

Definition of a Map Package

A map package is the official collection of material used by a compliance inspector to guide, document, and record in-field assessments of electric distribution facilities during patrols or inspections.

A map package contains the following items:

- The original map package consists of the following:
  - Printed copy of a plat map or Geographic Information System (GIS) map
  - Pre-printed copy of daily logs
  - Printed copies of pending Electric Corrective (EC) notifications (if any) – UG inspections only
  - Printed copies of pending idle facility notifications (if any) – UG inspections only
  - Printed copies of pending third-party notifications (if any) – UG inspections only
- A completed map package consists of the following:
  - Printed copy of the plat map or GIS map with electric distribution facilities highlighted
  - Daily logs annotated and completed with LAN ID and date
  - Map stamp completed with LAN ID and date
  - Updated and signed copies of pending EC (if any) – UG inspections only
  - Other forms written by the compliance inspector (if any)

- Photos of conditions being reported (if any)

Examples of OH Patrol Map Package

- Contents of original map package:
  - Printed copy of the plat map or GIS map
  - Pre-printed daily logs
- Contents of completed map package may include:
  - Highlighted plat map or GIS map
  - Completed and signed/dated daily logs
  - Completed and signed map stamp
  - TD-9001P-01-F01, “Patrol/Inspection Map Correction Form,” with photos, if any
  - TD-2321P-01-F01, "Bird Incident Reporting Form," with photos, if any

Examples of Underground Map Package

- Contents of original map package:
  - Printed copy of a plat map or GIS map
  - Pre-printed copy of daily logs
  - Printed copies of pending EC notifications (if any) – UG inspections only
  - Printed copies of pending idle facility notifications (if any) – UG inspections only
  - Printed copies of pending third-party notifications (if any) – UG inspections only
- Contents of completed map package may include:
  - Highlighted plat map or GIS map
  - Completed and signed/dated daily logs
  - Completed and signed map stamp
  - Updated pending EC notifications to include updating, changing a priority, completing, or canceling the notification

- Vault Discharge Form
- Map Correction Form with photos

Requirements for a Map Package

Each map package contains confidential information about PG&E's Electrical Distribution system. It may also contain information about PG&E's customers such as names, addresses, and gate codes.

- It is a requirement for the compliance inspector to maintain physical custody of the map package while the map package is assigned to him/her.
- When the compliance inspector is away from vehicle or out of sight, or during non-working hours leaves his/her vehicle unattended, the map package must be stowed and stored in a locked compartment.
- The storage, security, and retention of the map package are governed by PG&E's Employee Code of Conduct Policy and the California Public Utilities Commission (CPUC).
- The map stamp is required on a plat map or GIS map.

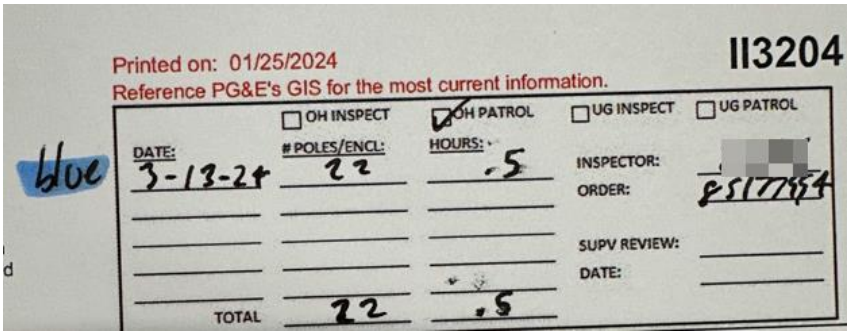


Figure 1. Example 1

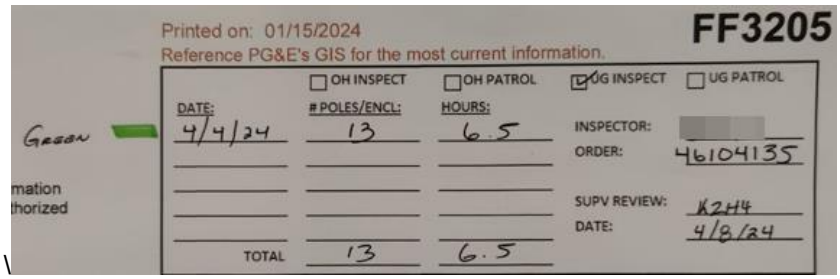


Figure 2. Example 2

- The map package should be completed before the map's due date.

- Use non-erasable ink. If an error is made, white out is not acceptable. Instead, personnel should draw a line through the original information, write their initials and the date, and then write the correct information. Do not black it out completely.

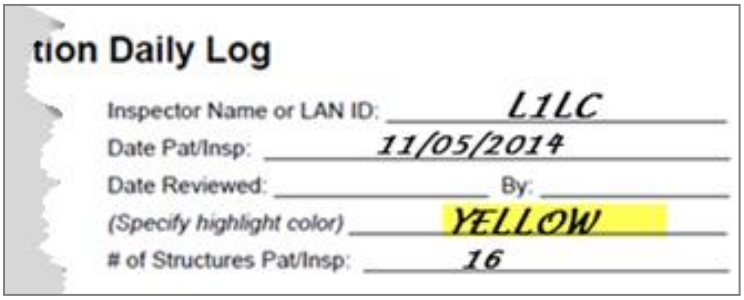


Figure 3. Original

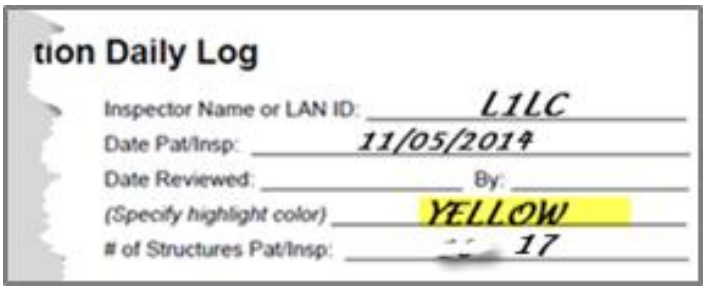


Figure 4. Not Acceptable (White Out)

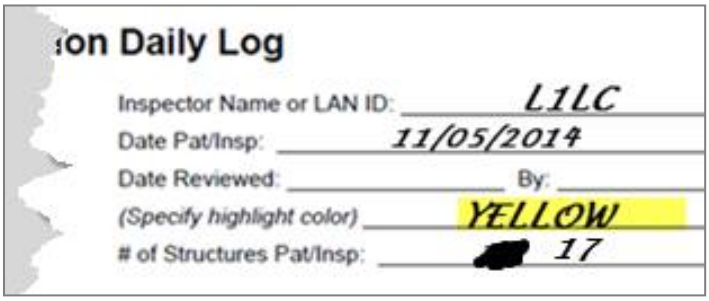


Figure 5. Not Acceptable (Blacked Out)

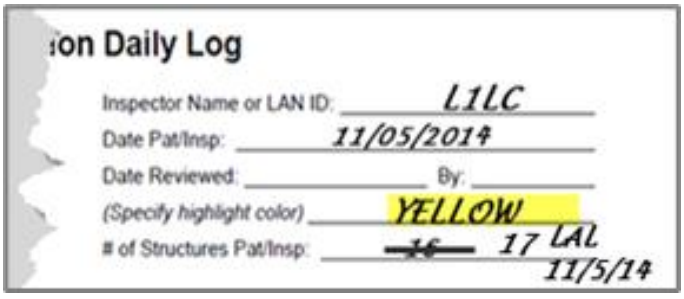


Figure 6. Acceptable (Line Through)

Map Package Process: Overview

1. Annually

    - A map package is created for each map that needs to be patrolled or inspected in a calendar year, excluding overhead inspections. A calendar year is January to December of the same year.

    - The quantity of maps varies slightly year by year. Generally, about 45,000 maps are patrolled or inspected each year.

2. Assigning the map package

    - The division's System Inspection supervisor, or designee, assigns an individual map package to a compliance inspector.

    - Only one compliance inspector may work an assigned map package at a time.

    - For exceptions, personnel must contact a System Inspection supervisor.

    - Exceptions include vaults, doubling up for pick-up, etc.

3. Reviewing the map package

    - The original map package (the printed map, daily logs, and included forms) represent legal documentation of the facilities on the map which have been scheduled to be patrolled or inspected in the current calendar year.

4. Working the map

    - During patrols and inspections, compliance inspectors will highlight the map's facilities and overhead conductors and may create other forms (ECs, third-party utility, idle facilities, etc.) for the map package.

5. After completing the map package

    - When the compliance inspector completes the map, the entire content of the map package represents legal proof that PG&E has confirmed that the specific facilities on the map were patrolled or inspected.

    - Any additional forms written by the compliance inspector are also considered legal documentation supporting the assessment of the facility by the compliance inspector.

6. Data entry

    - Most forms are created electronically in the mobile application.

- Map corrections require data entry into the system of record, by PG&E's clerical staff.
- Information from other forms is recorded per each form's requirements by PG&E's clerical staff.

7. Supervisor review and approval
    - The content of the map package is required to be reviewed by the System Inspection supervisor. After the System Inspection supervisor approves the map package, the facilities may be audited internally by resources such as a work verification specialist or externally by sources such as the CPUC.

Map Package Process: Supervisor

The supervisor is required to review and approve map packages.

Note: The supervisor may assign a designee for vacation relief, etc.

1. The supervisor must perform the following activities:
    - Review the map package for completeness and accuracy
    - Confirm that all required facilities on the map are highlighted
    - Verify that each location number on the map has a corresponding entry on the daily log
    - Verify that each location number on the map has a corresponding entry on all forms (EC, TP, MC, etc.)
    - Confirm that the compliance inspector used non-erasable ink to fill out log and forms
    - Review minor work
    - Reassign the map package to the originator if any re-work (missing units, missing photos, etc.) prevents the supervisor from approving the map and/or the contents of the map package
2. The supervisor must confirm that the map and daily log(s) have been reviewed and approved by the following activities:
    - An ink and pen entry of LAN ID and date
    - Do not use a signature stamp
    - On the daily log, use non-erasable ink to write LAN ID and date reviewed
    - On the map, use non-erasable ink to write LAN ID and the date reviewed

3. Pending EC notifications: The supervisor must review newly updated pending EC notifications as defined in the following activities:
    - Review any updates to pending EC notifications in the map package
    - Review photos, new FDAs, and other information to verify the change/update is valid and complete
    - If completed or cancelled, ensure all applicable “complete” or “cancel” boxes are checked
    - Use non-erasable ink to write initials and the date reviewed on the updated pending EC notification (best practice is to write it in the bottom right corner of page 1 of the EC notification)
4. New EC forms that are created and completed by the inspector (capital minor work, etc.): The supervisor must review these as defined in the following activities:
    - Confirm the correct accounting/PM order was entered in the EC form
    - Confirm that the location number on the map, daily log, and the pending EC notification match
5. New third party, idle facility, map corrections, minor work: The supervisor must review these as defined in the following activities:
    - Confirm that the location number on the map, daily log, and the new form(s) match
    - Map Correction Form: All fields except for the “Sub,” “Circuit,” and “Dept. Ref. Number” should be filled out
    - Review for overall completeness, looking for missing information or other inaccuracies
    - Use non-erasable ink to write initials and the review date in the bottom right corner of each form

Map Package Process: Clerical

Key requirements and process activities for clerical supporting System Inspection divisions are listed below:

- Update pending EC notifications in SAP
- Create map corrections using EDGIS which creates RW notifications
- Enter units in SAP and P&I spreadsheet
- Print minor work report and EC report
- Process third-party outgoing during time of map review, then print and mail

- If something looks incorrect, ask the System Inspection supervisor/specialist
- Final step is to fill out the pre-file checklist G.O. 165 documentation pre-file checklist and file the completed map package

How to Record Work on a Map

1. As a compliance inspector patrols or inspects facilities, they use a highlighter to record the patrolled or inspected facilities. Use one highlighter color per day.
2. Use the location number to show where a notification was identified during a patrol or inspection at an individual facility, excluding minor work.

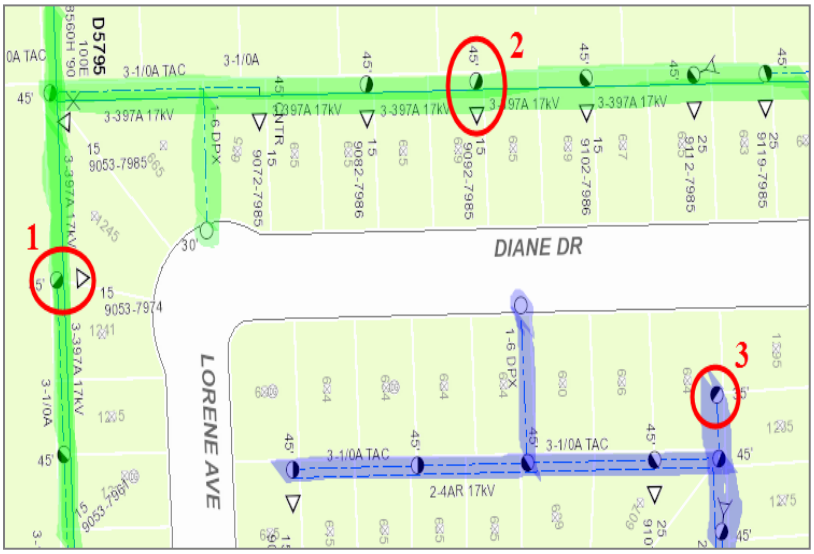


Figure 7. Example of Recorded Work on Map

How to Record Work on the Daily Log

1. For each day, use a new daily log.
    - In the title, circle “Patrol” or “Inspection” as applicable
    - Circle the type of inspection behind the MAT code
    - Write LAN ID
    - Write the date
    - Highlight the color being used today
    - Write the name of color being used today

Electric Maintenance Patrol/Inspection Daily Log

Inspector Name or LAN ID: LILC

Rural/Urban: Rural | 2 Yr Map Schedule: 2012-Patr | Date Pat/Insp: 11/05/2014

Order: 41405043 | Map: ED.20-N140000000 | Date Reviewed: _____ By: _____

MAT: BFB OH Insp | Main Work Ctr: AUBURN | (Specify highlight color) YELLOW

[ ] Check if "NO" Abnormal Conditions Identified Today | # of Structures on File: 112 | # of Structures Pat/Insp: _____

Figure 8. Highlight Color – Daily Log

2. If abnormal conditions have been assessed today, excluding minor work, then write the location number on the map and on today's daily log.

   Note: Sequentially number the conditions on the map and daily log. For maps that are worked over multiple days, continue numbering conditions so that each location has a unique location number.

3. Summarize information about the condition for each location number.

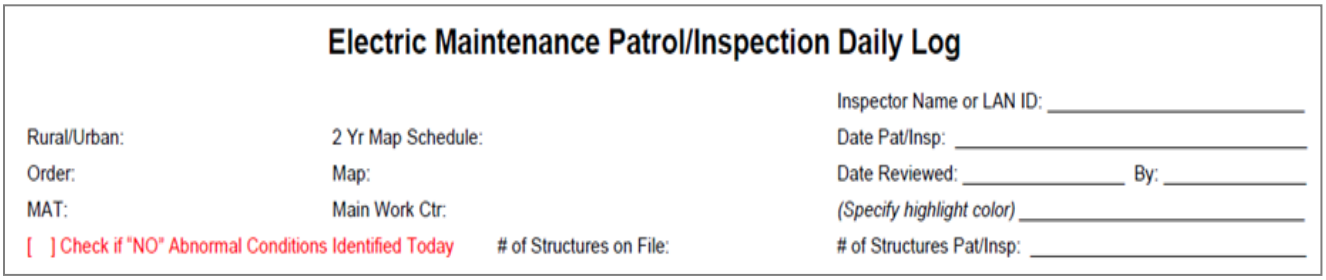
4. If there are no conditions for today, including minor work, then write a ✓ or X in the box labeled, "Check if 'NO" Abnormal Conditions Identified Today"

   Note: Beginning in 2025, this box will be removed, and there will be no requirement to check.

5. For each day's daily log, write the number of structures that were patrolled or inspected.

   Note: Do not cross out the # of Structures on File.

6. Extra daily logs: A map package contains pre-populated information on the daily log forms. If a compliance inspector runs out of these forms, they should use blank daily log forms and remember to complete the top section of the blank daily log.



Electric Maintenance Patrol/Inspection Daily Log

Inspector Name or LAN ID: _____

Rural/Urban: | 2 Yr Map Schedule: | Date Pat/Insp: _____

Order: | Map: | Date Reviewed: _____ By: _____

MAT: | Main Work Ctr: | (Specify highlight color) _____

[ ] Check if "NO" Abnormal Conditions Identified Today | # of Structures on File: | # of Structures Pat/Insp: _____

Figure 9. Example of Blank Log

How to Record Work on the Map Stamp

When the compliance inspector is assigned a map, the map stamp must be completed using non-erasable ink. They should continue updating daily information each day they work the map.

Enter the following required information:

1. WORK TYPE: Check the box to indicate the type of map being worked. One of these boxes must be checked.
    - OH PATROL
    - UG INSPECT
    - UG PATROL
2. Highlight and write the name of the color being used today.
3. DATE: Use format MM/DD/YY. This is the date the compliance inspector worked the map.
    - # POLES/ENCL: This is the number of patrolled or inspected facilities (# POLES/Number of Poles or # ENCL/Number of Enclosures). Indicate the daily count of facilities patrolled or inspected.
    - HOURS: Enter the total number of hours worked for each DATE listed. A “0” hour map is possible.
    - TOTAL:
        - Sum the # of POLES or # of ENCL.
        - Sum the number of hours worked columns.
    - INSPECTOR: Write LAN ID.
    - ORDER: Write the PM order number for this map.
    - SUPV REVIEW: After the supervisor reviews the completed map, the supervisor enters his/her LAN ID.
    - DATE: After the supervisor reviews the completed map, the supervisor writes the date of the review. Use the MM/DD/YY format.

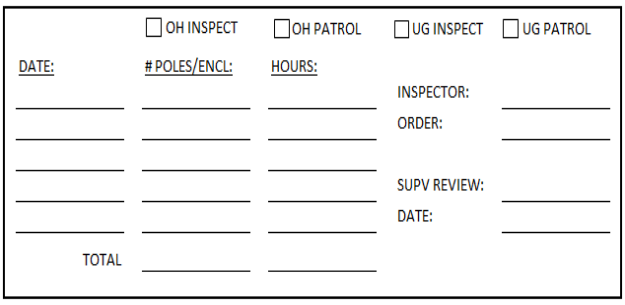


Figure 10. Example Map Stamp

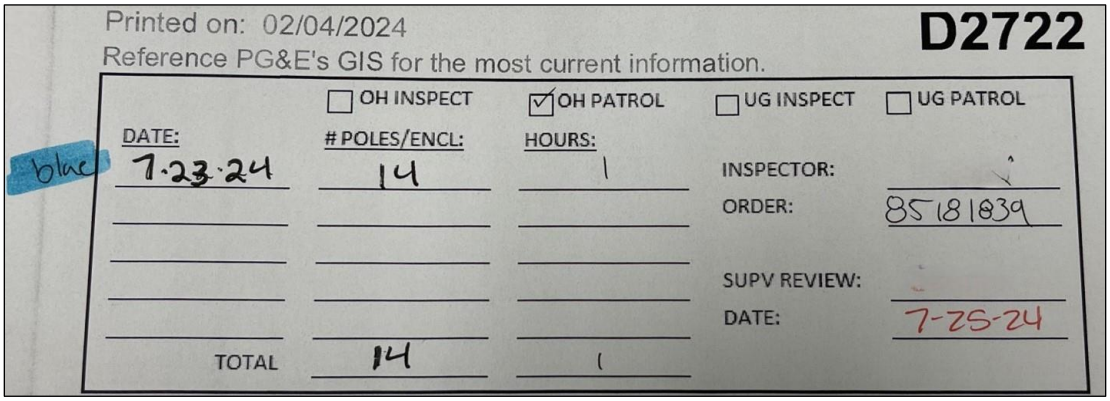


Figure 11. Example Map Stamp on Printed Map

When to Turn in the Map Package (Inspector)

1. If the map is completed, including ECs written for CGI or CL, then turn in the completed map package to the local office, not to exceed 5 business days, or in the field to the supervisor.

2. If the compliance inspector plans to be off work for more than 1 week, then they should check in with their supervisor and turn in the map package to the office.

Recommended Workflow Steps for Inspector

1. Get the assigned map package from the division's supervisor or designee.

2. Review the map package

    - Review the map package to become familiar with its contents and to determine where the map's facilities are located

    - Evaluate terrain, agriculture growing seasons, holidays, road conditions, weather, other environmental conditions, or customer safety alerts that may pose safety hazards or delay working the map by its due date

    - Make every effort to improve productivity by planning routes and working similar or adjacent maps together

3. Work the map

    - Highlight facilities and OH conductors

    - Complete the daily log

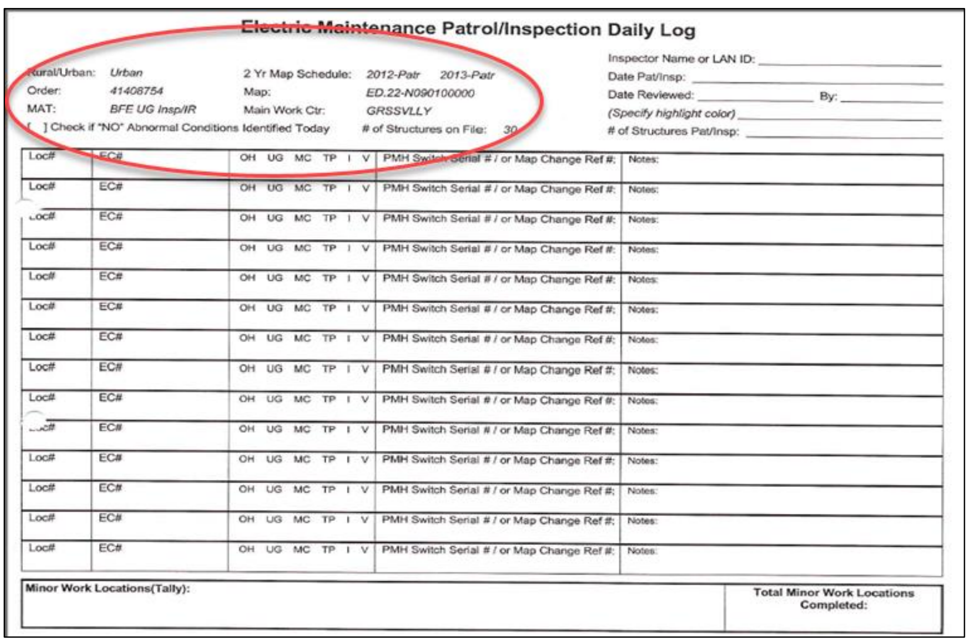
    - Review and reference pending EC notifications (if any):

        - For patrols, review to prevent writing a duplicate

- For inspections:
  - → Review to prevent writing a duplicate
  - → Confirm no change to pending EC notifications
  - → Change priority, recommended due date, or add new FDA as needed
  - → Cancel because all work found complete on arrival (NCOA); Two photos are required for this type of cancelation
  - → Cancel because field conditions do not meet EC criteria (NOCR); One photo is required for this type of cancelation
  - → Complete all FDAs as minor work

4. Write other forms and add to the map package as conditions apply.
5. Complete the map stamp
6. Submit the completed map package to the division's supervisor or designee.
7. The supervisor performs a review
8. The RFC enters information into the appropriate system of record

For more information, compliance inspectors may contact their System Inspection supervisor.



Electric Maintenance Patrol/Inspection Daily Log

Rural/Urban: *Urban* 2 Yr Map Schedule: *2012-Patr 2013-Patr* Inspector Name or LAN ID: ____
Order: *41408754* Map: *ED.22-N090100000* Date Pat/Insp: ____
MAT: *BFE UG Insp/IR* Main Work Ctr: *GRSSVLLY* Date Reviewed: ____ By: ____
(Specify highlight color) ____
[ ] Check if "NO" Abnormal Conditions Identified Today # of Structures on File: *30* # of Structures Pat/Insp: ____

Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:
Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:
Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:
Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:
Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:
Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:
Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:
Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:
Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:
Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:
Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:
Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:
Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:
Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:

Minor Work Locations(Tally):	Total Minor Work Locations Completed:

Figure 12. Patrol Log (Pre-Populated) – Sample Form

Electric Maintenance Patrol/Inspection Daily Log

Inspector Name or LAN ID: ______________________

Rural/Urban: 2 Yr Map Schedule: Date Pat/Insp: ______________________

Order: Map: Date Reviewed: ____________ By: ____________

MAT: Main Work Ctr: *(Specify highlight color)* ______________________

[ ] Check if "NO" Abnormal Conditions Identified Today # of Structures on File: # of Structures Pat/Insp: ______________________

Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:
Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:
Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:
Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:
Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:
Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:
Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:
Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:
Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:
Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:
Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:
Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:
Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:
Loc#	EC#	OH UG MC TP I V	PMH Switch Serial # / or Map Change Ref #:	Notes:

Figure 13. Patrol Log (Blank) – Sample Form

5.2 Patrols

A patrol is maintenance activities that include a simple, visual examination of applicable overhead and underground facilities to identify obvious structural problems and hazards.

Patrols must be performed annually in urban areas, and every other year in rural areas, unless the area has been inspected in that year. Patrol schedules are measured in calendar years.

12+3 Due Date for Patrols and Inspections

The CPUC 12+3 month Patrols & Inspections (P&I) requirement defines:

- The due date for map/MP is based on the date the map/MP was last inspected or patrolled.
- Inspections or patrols may not exceed 3 additional months past the previous inspection or patrol date (maximum 15 months).
- Inspections or patrols may be performed before the due date.
- Inspections or patrols are performed by the end of the calendar year (12/31/XX).
- The start of an inspection or a patrol starts a new inspection or patrol interval that must be completed within the prescribed timeframe.

Requirements

General

Patrols must be performed by compliance inspectors, or company representatives trained and qualified to perform the duties of a compliance inspector, who are thoroughly familiar with all of the facilities and equipment involved, and all safety rules and procedures associated with the facilities and equipment.

An inspection may be considered as a patrol, but a patrol may not be considered as, or substituted for, an inspection. Patrols may be carried out in the course of other company business provided that all patrol requirements are met. Patrols cannot be performed at night.

All patrols must be conducted in a manner that will ensure the identification of any obvious structural problems or hazards without using measuring devices, tools, or diagnostic tests, and to record that the facilities have been patrolled.

Before the map/MP is signed off as complete, all applicable electric distribution facilities in the geographic area of the plat map/MP are patrolled, even if they are not mapped.

Overhead

Patrolled overhead facilities include primary, secondary, service, and other associated electric distribution facilities outside the substation fence to the end of line. Towers supporting only distribution facilities are also included in the overhead patrol.

An overhead patrol may be performed by walking, driving, drone, or helicopter. For maps/MPs where secondary enclosures exist without primary enclosures, perform visual evaluation of exterior of enclosure in conjunction with overhead inspection or patrol. Do not count unit in pole count.

Underground

Patrolled underground facilities include pad-mounted equipment, primary enclosures, and visible secondary enclosures outside the substation fence to the end of the line.

An underground patrol may be performed by walking, driving, drone, or helicopter. Where secondary enclosures exist without primary facilities, either overhead (OH) or underground (UG), a separate map/MP will be created for those maps/MPs.

Note: If a compliance inspector cannot locate/see the secondary enclosure, then no safety or reliability issue has been identified. They may continue with a patrol.

Compliance Inspector Tasks

Compliance inspectors must:

- Have all applicable electronic and/or paper documents (patrol map/MP, electric maintenance patrol/inspection daily log, and a report of all pending EC, idle facility (IF), and third-party notifications associated with the map/MP)
- Document the completion of patrol by performing the following:
    1. On a daily basis, highlight the patrolled facilities (using a different highlight color for each day).
    2. Sign and date and highlight the date with color used on the log and map/MP each day, using non-erasable ink only, and indicate the number of units patrolled.
    3. Record conditions identified in the field on the applicable form(s) and on the patrol/inspection daily log. Assign a location number per location and use this number to identify the condition on the map/MP and corresponding log. Complete any additional documentation needed.
    4. Submit completed map/MP, log(s), and associated forms, which comprise the completed map/MP, to the local Systems Inspections office for review and processing daily, or at the next visit to the office, not to exceed 5 business days.
- When a compliance inspector encounters a migratory bird incident, they will contact their PG&E lead or supervisor and follow Utility Standard TD-2321S, “Avian Protection Plan.”

Performing Overhead Patrols

During an overhead patrol, the following assets must be patrolled. Highlight when there is a discrepancy between number of poles on the daily log and the number of units on map/MP or in the field.

- PG&E solely and jointly owned poles (Highlight)
- Transmission poles with distribution underbuild (Highlight)
- Distribution towers and lattices (Highlight)
- Distribution poles with streetlights (Highlight)
- Primary metering (Highlight)
- Primary and secondary conductor (Highlight)
- Primary and secondary risers and services (Do not highlight)

- Streetlight only poles, wood, or steel (Do not highlight)
- For maps/MPs where secondary enclosures exist without primary enclosures, perform a visual evaluation of exterior of enclosure in conjunction with the overhead patrol (Do not highlight)

Performing Underground Patrols

During an underground patrol, the following assets must be patrolled:

- Pad-mount facilities (Highlight)
- Primary subsurface vaults, manholes, and enclosures (Highlight)
- Primary metering (Highlight)
- Patrol of secondary enclosure includes only a visual evaluation of the exterior of visible enclosures to identify obvious structural hazards or problems (Do not highlight)
- Where secondary enclosures exist without primary facilities, either OH or UG, a separate map/MP will be created for those maps/MPs

Patrol Documentation Requirements

Required patrol documentation must consist of the following records which will provide adequate, consistent, and auditable patrol records when used together:

- Patrol map/MP: An easy, graphic way to track progress on the patrols of all electric facilities
- Electric maintenance patrol/inspection daily log: Provides a means to document location information and links the patrol map/MP by the specific patrol date to the system-generated EC notification number, thus enabling access to that specific record in the SAP database
- Report (list) of pending EC notifications associated with the map/MP (reference only to avoid a duplicate EC being created)

Completed, dated, and signed inspection maps/MPs and logs must be submitted to the Systems Inspections office for review, along with any applicable forms daily, or at next visit to the office, not to exceed 5 business days.

The supervisor or designee is required to review all complete maps/MPs for the following:

- Review map/MP to ensure all applicable facilities are highlighted (and counted, if applicable)
- Review daily log
- Review updated pending EC notifications, if applicable and if an update is necessary
- Review all paper forms

5.3 Inspections

This section describes the activities required by the compliance inspector to complete overhead (OH) and underground (UG) inspections.

An inspection is a careful examination of individual components, structures, and equipment through visual observation and/or routine diagnostic tests.

The purpose of an inspection is to examine and record any compelling abnormal conditions that, in the judgment of the compliance inspector, will adversely impact safety or reliability (electric corrective [EC]). It is also intended to record other corrective work, (third party infractions (TP), map corrections (RW), idle facilities (IF)).

When to Inspect

Overhead facilities must be inspected once every 5 years. The recommended schedule allows approximately one fifth of the total poles within a division to be inspected each year.

Underground facilities must be inspected once every 3 years. The recommended schedule allows approximately one third of the total number of underground primary facilities within a division to be inspected each year. Inspection schedules are measured by calendar years.

12+3 Due Date for Patrols and Inspections

The CPUC 12+3 month P&I requirement defines:

- The due date for each map/MP is based on the date the map/MP was last inspected or patrolled.
- Inspections or patrols may not exceed 3 additional months past the previous inspection or patrol date (maximum 15 months).
- Inspections or patrols may be performed before the due date.
- Inspections or patrols are performed by the end of the calendar year (12/31/XX).
- The start of an inspection or a patrol starts a new inspection or patrol interval that must be completed within the prescribed timeframe.

Requirements

Inspections must be performed by compliance inspectors, or company representatives trained and qualified to perform the duties of compliance inspector, who are thoroughly familiar with all of the facilities and equipment involved and all safety rules and procedures associated with the facilities and equipment.

The compliance inspector's primary responsibility when inspecting an overhead or underground electric facility is to examine and record any compelling abnormal conditions as defined in TD-2305M-JA02, "Job Aid: Overhead Assessment" and TD-2305M-JA03, "Job Aid, Underground Inspection."

Inspected facilities include all associated applicable electric distribution and service facilities inside and outside the substation fence.

OH Inspections: Inspection Requirements

A compliance inspector must be at the structure and achieve a 360-degree view of the entire structure from bottom to the top. They are required to view all conductor(s) to mid-span or to the weather-head or to the termination point.

UG Inspections: Inspection Requirements

An UG inspection requires that a compliance inspector:

- Be at the approved structure
- Gain access and perform all requirements listed in the job aid
- Perform a visual/infrared (IR) inspection of the required components
    - When the enclosure is no more than 50% full
    - All connection points are uncovered in order to perform infrared inspection
    - If there is oil in the enclosure, additional cleaning may be necessary in order to perform the inspection.

      Note: If there are signs of oil at the facility, the compliance inspector should use their field knowledge to assess whether there is additional cleaning needed. In most cases, if there are visible signs of leaking/seeping oil, an EC will be required to address the oil issue per the current oil spill matrix, even if they can perform the inspection.

When to Clean Debris or Pump Water to Perform UG Inspections

- If the debris is more than 50% up the side of the equipment.
- For enclosures with no equipment: If the debris impacts a compliance inspector's ability to perform the IR inspection.
- Water must be pumped when it impacts the compliance inspector's ability to perform the IR inspection (such as a sub-surface enclosure with cables attach to bushings, must be able to unplug and remove)

  Note: Inspectors who perform UG inspections should be provided with pumps to perform their own pumping.

Compliance Inspector Tasks

Compliance inspectors must:

- Have an approved electronic device, map/MP (inspection map/MP, electric maintenance patrol/inspection daily logs, and all pending EC, IF, TP notifications)
- Perform minor work (refer to Section 5.7, “Minor Work,” on Page 39) that can be done safely and in a reasonable amount of time by an individual
- Perform the inspection (refer to Subsection 5.3.6, “Performing Overhead Inspections,” and Subsection 5.3.7, “Performing Underground Inspections,” on Page 29)
    - **Note**: Leadership will provide guidance as to the amount of time a compliance inspector should spend performing minor work versus creating an EC notification.
- Perform field validation of pending EC notifications to address the following:
    - Did the condition deteriorate faster than expected?
    - Has the work already been completed?
    - Does the condition meet the latest EC creation criteria defined in the job aid?
- When it is safe to do so, and when all FDAs can be completed, record completion of pending EC notifications to address the following:
    - Obtain paper copy of EC
    - Check “Completed” for each FDA
    - Enter LAN ID, date completed, and actual hours (in 15-minute increments)
    - Check “PG&E Crew” or “Contractor”
    - Check “Completed”
    - Sign name on the signature line
    - Write, “All work completed,” plus any applicable comments
- Document the completion of inspections on the approved electronic device or paper forms.
- Submit completed map/MP, log(s), and associated forms to the local System Inspections office, not to exceed 5 business days.

Identify and Document Field Scenarios

A compliance inspector is required to identify and document the following field scenarios that impact safety and reliability:

- Compelling abnormal conditions and/or opportunity work that can be repaired safely and efficiently at the site: use the minor work tracking log on an approved electronic device (refer to Section 5.7, “Minor Work,” on Page 39).

- Compelling abnormal conditions, opportunity work, and third party- caused infractions that cannot be repaired safely and efficiently at the site: Use an EC work form on an approved electronic device.

- A map discrepancy during an UG inspection: Use the Map Correction Form (refer to Section 5.6, “Map Corrections,” on Page 37).

- A third-party infraction or interference that has or is likely to have an adverse effect on the safety or reliability of PG&E’s facilities:

    - If infraction was created by a third-party non-utility, use a Third-Party Non-Utility Form 62-3448 on an approved electronic device.

    - If infraction was created by a third-party utility, use a Third-Party Form 62-3447 on an approved electronic device.

- Idle facilities: Create an IF Form on an approved electronic device to begin the idle facility investigation process. If the field condition requires that it be de-energized, also fill out an EC Work Form on an approved electronic device to de-energize. Use Priority B with 0-to-3-month duration. For Cannot Get In (CGI)/Cannot Locate (CL), refer to Section 5.5, “Cannot Get In/Cannot Locate,” on Page 32.

- An enclosure full of water: Refer to ENV 2202P-01, "Field Guide: Vault Dewatering." Document it on the "Vault Discharge Report (VDR) Form."

- A leaking piece of equipment: Respond in accordance to TD-2305M-JA02, "Job Aid: Overhead Assessment" or TD-2305M-JA03, "Job Aid: Underground Inspection" as applicable (refer to the PCB Spill/Leak Category Response Matrix). Use the appropriate EC Work Form on an approved electronic device.

- Excessive temperature differential: Use the IR Data Sheet on an approved electronic device and fill out an UG EC Work Form on an approved electronic device (refer to Section 6.5, “Infrared Assessments,” on Page 50).

- A raptor bird incident. Follow Utility Standard TD-2321S, “Avian Protection Plan.”

- Immediate safety or reliability hazard: Follow Utility Standard TD-2060S, “Emergency Electric Corrective Documentation Standard,” and create an EC Work Form Priority-A (Emergency) on an approved electronic device for the condition. Write the location number on the map/MP and daily log, then enter the following comment: “Emergency, referred to [Name of relief].”

- X tag is to be used for Level 2 conditions which have a high potential impact to safety or reliability but does not pose an immediate risk. The X tag requires corrective action within 7 days. For specific guidance and examples of X tag conditions, see TD-2305M- JA02, "Job Aid: Overhead Assessment" and Utility Standard TD-8125S, "Level 2 Priority X Electric Corrective (EC) Standard."

- A piece of equipment is out-of-service and/or inoperable (COE, “Critical Operation Equipment”): Follow TD-2305M-JA02, "Job Aid: Overhead Assessment" or TD-2305M-JA03, "Job Aid: Underground Inspection" as applicable for COE reporting. Write the location number on the map/MP and daily log, then enter the following comment on the daily log: “COE.” In an approved electronic device, in the inspector comments section, document the PIN.

Performing Overhead Inspections

During an OH inspection, the following assets must be inspected:

- PG&E solely and jointly owned poles, which includes all equipment and facilities on the pole

- Transmission poles with distribution underbuild

- Distribution towers and lattices

- Distribution poles with streetlights

- Primary and secondary conductor

  Note: If the secondary enclosure cannot be located, then no safety or reliability issue has been identified. The inspection may be resumed.

- For maps/MPs where secondary enclosures exist without primary enclosures, perform a visual evaluation of exterior of enclosure (patrol only) in conjunction with the OH inspection

Performing Underground Inspections

The inspections of primary facilities include a visual evaluation of the exterior and interior of the enclosure and the condition of equipment. The following assets must be inspected:

- Pad-mount facilities are included in the UG inspection (Highlight and count)

- Primary subsurface vaults, enclosures, and equipment such as subsurface transformers, switches, etc. (Highlight and count)

- Primary metering inspections will be performed during the UG inspection cycle. Inspection includes all visible, primary cables up to termination point. Metering department is responsible for facilities beyond termination point. (Highlight and count)

- All UG equipment, conductors, splices, and elbows within primary enclosures must be inspected (Do not highlight and do not count)

- Inspection of secondary enclosure includes only a visual evaluation of the exterior of visible enclosures to identify obvious structural hazards or problems (Do not highlight and do not count)

- Where secondary enclosures exist without primary facilities, either OH or UG, a separate maintenance plan will be created for those maps/MPs

  Note: If the secondary enclosure cannot be located, then no safety or reliability issue has been identified. The inspection may be resumed.

- During a UG inspection, IR inspections must be performed in conjunction with UG inspections (refer to TD-2305M-JA03, "Job Aid: Underground Inspection").

Inspection Documentation Requirements

A maintenance plan must be available defining when inspections are scheduled to be performed. The plan must cover the next 5 years for overhead inspections and the next 3 years for underground inspections.

Required inspection documentation must consist of the following records which will provide adequate, consistent, and auditable inspection records when used together:

- Inspection map/MP: An easy, graphic way to track progress on the inspections of all electric facilities

- Electric maintenance patrol/inspection daily log: Provides a means to document location information and links the inspection map/MP by the specific location number to the system-generated EC notification number, enabling access to that specific record in the SAP database

- Pending EC, IF, and third-party notifications (if any) associated with the map/MP, plus any new forms (if any)

Completed inspection maps/MPs and logs must be submitted to the System Inspection office for review, along with any applicable forms daily, or at next visit to the System Inspection office, not to exceed 5 business days.

The supervisor or designee is required to review all complete maps/MPs for the following:

- Review map/MP to ensure all applicable facilities are highlighted

- Review log
- Review updated pending EC notifications
- Review all paper forms

5.4 Paper Map Process Flow

This section describes the activities that are required for paper maps to be issued, worked, completed, closed out, and retained.

Before starting, compliance inspectors must complete the following:

- Follow Section 5.2, “Patrols,” on Page 21 and Section 5.3, “Inspections,” on Page 25.
- Adhere to PG&E’s record retention and management procedures.

A paper map/MP goes through multiple phases in its lifecycle. The general process is outlined in the following steps:

1. The planning team creates a P&I spreadsheet and posts it in SharePoint.
2. The supervisor and specialist assign each maintenance plan a month in which to be worked.
3. The specialist or designee records the date each paper map/MP is received from the centralized clerical team.
4. The supervisor assigns a map/MP to a compliance inspector and records the name and date in P&I.
5. The compliance inspector performs the work, then turns in the completed map package.
6. RFC enters preliminary completed units and dates in SAP and P&I.
7. The supervisor reviews all map stamp content for the following items:
    - Header/stamp information on map and daily logs are correct
    - Every applicable asset is highlighted on the map
    - Daily and total asset counts and hours for the map/MP are correct
8. The supervisor approves the map/MP and logs with LAN ID and review date.
9. The supervisor makes the following entries into the P&I spreadsheet:
    - Total units

- Supervisor LAN ID

10. The clerk receives the completed map/MP, follows the clerical checklist, pulls the minor work, EC reports, RWs, and TPs, and inputs any map corrections.

11. The clerk verifies the unit counts and enters start date and completion date in the P&I spreadsheet.

12. The clerk enters units and closes the map/MP spreadsheet and SAP.

13. The specialist verifies that the P&I spreadsheet matches what is shown in SAP, then closes the order.

14. The specialist reviews applicable reports and indicates in the P&I spreadsheet that it is complete.

15. The clerk files the paper map/MP.

16. The specialist performs a validation of the map/MP by ensuring it is in the file, then logs the date in the P&I spreadsheet.

5.5 Cannot Get In/Cannot Locate

This section describes the steps necessary for compliance inspectors to document field situations when the compliance inspector does not have access to a facility or cannot find the facility.

“Cannot get in” means the inspection location is known, but access to the facility prohibits the compliance inspector from performing the patrol or inspection.

There are numerous reasons for “cannot get in” conditions. The most common scenarios are listed below:

- OH and UG Inspections
    - Facility is behind a locked gate
    - Facility is within a secured compound such as government or business properties that are fenced and require an appointment
    - Facility is surrounded by dense vegetation
    - Facility is flooded (flooded agriculture, winter/spring storms, etc.)
    - Facility is in fire zone (active fire or area is not safe to access)
    - Facility has an unleashed dog that poses a safety issue
    - Facility has property owners that require access negotiation

- Vehicles or other objects are on top of the facility or prevent inspection of the facility
- Road to facility is not safe

- OH patrols
  - One or more facilities are behind a locked gate, secured compound, vegetation, flooded, fire zone, or safety issue
  - The compliance inspector cannot fly, drive, or walk to view pole tops, conductor, crossarm, and guy

- UG patrols
  - One or more facilities are within a gated community, secured compound, vegetation, flooded area, fire zone, or safety issue
  - The compliance inspector cannot drive or walk to patrol the facilities

“Cannot locate” means that the location of the facility is unknown, and it prohibits the compliance inspector from performing the patrol or inspection.

There are only a few variations of “cannot locate” conditions. The most common scenarios are listed below:

- UG inspections
  - UG facility is paved over
  - UG facility is obscured by dense vegetation
  - UG facility is mapped, but was never installed or has since been removed in the field (outdated map/MP)

- UG patrols
  - One or more facilities are paved over or obscured by vegetation
  - The compliance inspector cannot drive or walk to patrol the facility
  - UG facility is mapped, but was never installed or has since been removed in the field (outdated map/MP)

Requirements for CGI or CL Conditions

While working the map/MP, do so in accordance with safety practices.

There are times when a compliance inspector will not be able to inspect the facility because they cannot perform the patrol or inspection due to an access issue or they cannot physically find the facility. These field conditions are referred to as Cannot Get In (CGI) and Cannot Locate (CL).

A compliance inspector must make every attempt to gain access to the facility by referring to the applicable job aids or contacting their lead or supervisor.

Recommended Workflow Steps

1. Try to gain access.
2. Use tools on an approved electronic device:
    - Gate code
    - Customer name and phone number
3. Call a lead/supervisor.
4. For OH inspections, call the CGI hotline (1-925-415-6600)
    - Provide location and/or structure information:
        - Address
        - SAP ID
5. Call the customer:
    - If there is no answer, or there is a message system:
        i. Be polite.
        ii. Leave name and cell number.
        iii. Place door hanger on the gate or home.
        iv. Create a CGI EC notification using the Inspect App.
6. If there is a pending CGI for this location, print the tag, perform the inspection, and complete the printed paper CGI Notification.
    - Do not FSR a CGI notification.

CGI–Customer Access Issue

If a compliance inspector cannot gain access, they create an EC using the following FDAs:

Facility: OH Facility Damage: Limited Access

Action: Inspect

Facility: OH Facility Damage: Customer-Related

Action: Access

1. Always adjust the due date to one month from today's date/the map/MP's due date.
2. In the comments section:
    - Always write "Customer access."
    - Provide any helpful information that may aid access.
3. Attach a map/MP and at least two field photos of the area showing what is preventing access; however, do not risk safety to obtain photos.
4. If threatened, call a PG&E lead/supervisor immediately.

CGI–Customer Refusal

If a compliance inspector cannot gain access, they create an EC using the following FDAs:

Facility: OH Facility Damage: Limited Access

Action: Inspect

Facility: OH Facility Damage: Customer-Related

Action: Refusal

1. Always adjust the due date to one month from today's date/the map/MP's due date.
2. In the comments section:
    - Always write "Customer refusal."
    - Provide any helpful information that may aid access.

3. Attach a map/MP and at least two field photos of the area showing what is preventing access; however, do not risk safety to obtain photos.

4. If threatened, call a PG&E lead/supervisor immediately.

OH Inspection/OH Patrols: CGI–Non-Customer Related

If a compliance inspector cannot gain access, they create an EC using the following FDAs:

Facility: OH Facility Damage: Limited Access

Action: Inspect

Facility: OH Facility Damage: Limited Access

Action: Remove

1. Always adjust the due date to one month from today's date/the map/MP's due date.

2. In the comments section:

    - Always write "good field comments" explaining the issue.

    - Provide any helpful information that may aid access.

3. Attach a map/MP and at least two field photos of the area showing what is preventing access; however, do not risk safety to obtain photos.

4. If threatened, call a PG&E lead/supervisor immediately.

If a compliance inspector cannot gain access because the road is unsafe, they create an EC using the following FDAs:

Facility: OH Facility Damage: Limited Access

Action: Inspect

Facility: Road Damage: No safe access to pole

Action: Repair

1. Always adjust the due date to one month from today's date/the map/MP's due date.

2. In the comments section:

- Always write “good field comments” explaining the issue.
- Provide any helpful information that may aid access.

3. Attach a map/MP and at least two field photos of the area showing what is preventing access; however, do not risk safety to obtain photos.
4. If threatened, call a PG&E lead/supervisor immediately.

CGI–Tools to Help You Gain Access to the Structure

- Use the Inspect App:
  - Map Preferences–Layers
  - Field Intel ON
  - Access Road ON
  - Private Road ON
- Map Preferences–Basemap
  - Satellite ON
  - Asset info
  - Read safety alerts near the structure

CGI–Law Enforcement Alert

Required procedure–if an alert has customer refusal and/or law enforcement notes:

1. Do not call the CGI hotline.
2. Create a CGI EC notification using the Inspect App, selecting the reason as “Customer Refusal.”
3. Do not engage with the customer.
4. Do not engage with law enforcement.
5. If threatened, report the incident to a PG&E lead/supervisor.

5.6 Map Corrections

This section describes the steps necessary for compliance inspectors to document discrepancies between what is actually in the field and what is represented on the assigned map/MP.

Map correction is the process used to communicate significant mapping discrepancies from the compliance inspector's field observation compared to the map/MP being patrolled or inspected.

Significant mapping discrepancies are documented on an approved electronic device for OH inspections. For all other workflows, follow the paper map correction process.

Common Map Correction Triggers

The following are some of the triggers used to initiate a Map Correction Form:

- Missing or extra poles for OH maps/MPs, primary enclosures for UG maps/MPs
    - On inspection maps/MPs where detailed visual observations are performed, individual units (poles and enclosures) should be shown accurately on the map/MP. If the location shown on the map/MP isn't accurate and resulted in additional time looking for the facility in the field, consider issuing a Map Correction Form so this is not an issue on future inspections.
    - On patrol maps/MPs where we are looking to identify obvious structural problems and hazards, the actual unit count and facility location is not critical to the patrol process. Poles and enclosures might have been added or removed on existing distribution lines and map corrections are not required. Often the inspector will not even be aware of the addition or removal of a pole or enclosure; however, when significant facility changes are identified during a patrol, such as OH to UG conversion projects or tap line additions or removals, map corrections are necessary.
- Streetlights and ownership
    - In some divisions, PG&E-owned streetlights were sold to the local city/county, and map symbols were not revised to show the new ownership of the fixture or pole. In these divisions, the Inspectors are unable to determine ownership of the streetlight-only pole and therefore, a Map Correction Form should not be initiated because ownership is still in question. Assume PG&E owns the facility, and highlight if ownership is in question.
- Line equipment and transformers
    - On inspection maps/MPs where inspectors perform a careful examination of individual components, structures, and equipment, map corrections should be initiated for missing or incorrectly shown line equipment and transformers. This would include things such as operating number changes/issues in the field or on the map/MP. Typically, map corrections are not initiated for items such as individual transformer size discrepancies or conductor size discrepancies.
    - On patrol maps/MPs where we are looking to identify obvious structural problems and hazards, line equipment and transformer locations are not critical functions of the patrol process.

However, when significant facility changes are identified during a patrol, such as OH to UG conversions projects or tap lines additions or removals, map corrections are necessary.

- Secondary and conductor sizes
    - The size or number of the secondary conductor shown on maps/MPs generally does not impact our patrols and inspections. Also, the location of secondary insulator bobs typically does not impact patrols and inspections; therefore, a Map Correction Form would not be initiated for these types of discrepancies.
- Land base discrepancies
    - When land base discrepancies are identified and these discrepancies impact the ability to perform an inspection or patrol, consider issuing a Map Correction Form so they are not an issue on future inspections. Typically, the spelling of a thoroughfare is more important than if it is listed as a boulevard, lane, circle, or avenue. If an area has both a Smith Lane and Smith Circle, then consider issuing a Map Correction Form when the thoroughfare name is incorrectly shown on the map/MP. The addition of a creek or canal symbol on a map/MP could be significant if it helps the inspector determine where facility access is available and therefore would support a map correction.
- Other types of facilities or components discrepancies
    - Typically, map corrections are not initiated for anchor location or anchor ownership discrepancies or primary conductor size discrepancies.
    - Typically, map corrections are initiated for pole and enclosure ownership discrepancies, such as privately-owned service poles that are shown as PG&E-owned poles on the map/MP.

GIS vs. CAD Map Symbols

Refer to Utility Standard TD-9213S–Attachment 1(A), “Uniform Symbols for Electric Estimating and Mapping (Devices/Structures),” for the latest guidance.

5.7 Minor Work

This section describes when to perform minor work and how to document maintenance and repairs made to the facility and/or its components.

Forms needed:

- Map/MP
- Approved electronic device

Minor work is maintenance work and/or repair activities that can be accomplished safely and efficiently at the site of the electric distribution facility by the compliance inspector.

Minor work is recorded on these forms:

- Minor work tracking log
- Updated pending EC notification (also referred to as shop paper)
- New EC work form for capital work

Within the mix of supporting PG&E's OH and UG Electric Distribution system, minor work is a highly effective process that immediately improves reliability, operational safety, and public safety. It is also the most cost-effective preventative maintenance model used by Maintenance & Construction (M&C).

Examples of OH Inspection Minor Work

Compliance inspectors should make every effort to correct abnormal compelling and/or regulatory conditions within the first 8 feet on the pole.

Figure 14. Example of OH Inspection Minor Work

When there is too much vegetation to be cleared safely, use an EC Form to identify that the OH inspection cannot be completed until the vegetation is removed. In this case, use these FDAs:

- FDA 1: Tree/Vine Overgrown Remove
- FDA 2: OH Facility Could Not Locate Inspect
- Priority 'B'

- Recommended due date 0-3 months, not to exceed the CPUC due date for the Map/MP

Examples of OH minor work are grouped below 8 feet for compliance inspectors who do not have bucket trucks and above 8 feet for those who do have bucket trucks.

- Below 8 feet
    - Anchor–Adjust/Repair
    - Ground–Repair/Replace
    - Guy–Adjust/Repair/Trim
    - Marking–Install/Replace
    - Molding–Install/Repair/Replace
    - Pole Step–Install/Remove
    - Tree–Trim
- Above 8 feet
    - Conductor–Adjust/Repair/Replace
    - Connector–Replace
    - Ground–Repair/Replace
    - Guy–Adjust/Repair/Replace
    - Guy–Install/Trim Veg.
    - Hardware–Repair/Replace
    - High Sign–Install
    - Marking–Install/Replace
    - Molding–Install/Repair/Replace
    - Streetlight–Install/Repair/Replace
    - Tie Wire–Replace
    - Tree–Trim

Examples of UG Inspection Minor Work

For UG Inspections, clear vegetation to gain access to the facility as shown below.

Figure 15. Clearing Vegetation

Listed below are the types of minor work for UG inspections:

- Elbow–Minor Repair/Capacitance Caps
- Enclosure–Inspect/Trim
- Enclosure–Locate/Remove
- Fault Indicator–Replace
- Grounds–Adjust
- Hardware–Install/Repair/Replace
- Lid Frame–Repair/Adjust/Clean Lid
- Frame–Install/Replace
- Marking–Install/Replace
- Pedestal–Repair/Adjust
- Security Lock–Install/Replace
- Switch /J-Box–Clean/Remove

- Transformer–Clean/Install/Repair
- Tree/Veg–Trim
- Vault–Inspect/Locate/Repair/Pump

Requirements for Minor Work During Inspections

The compliance inspector performs minor work during inspections when the following conditions are met:

- It is safe to do so
- There are appropriate tools
- The facility has no pending EC notification all FDAs can be completed as minor work

There are 3 scenarios when clearing excessive vegetation as minor work is not appropriate.

Scenario 1: UG Inspection

If there is too much vegetation to be cleared safely, then use an EC Form to identify that the UG inspection cannot be completed until the vegetation is removed. In this case, use these FDAs:

- FDA 1: Tree/Vine, Growing Into, Remove
- FDA 2: UG Facility, Could Not Locate, Inspect
- Priority ‘B’
- Recommended due date 0-3 months, not to exceed the CPUC due date for the map/MP

Scenario 2: OH Inspection

If there is too much vegetation to be cleared safely, then use an EC Form to identify that the OH inspection be completed until the vegetation is removed. In this case, use these FDAs:

- FDA 1: Tree/Vine, Clearance, Remove
- FDA 2: OH Facility, Limited Access, Inspect
- Priority ‘B’
- Recommended due date 0-3 months, not to exceed the CPUC due date for the map/MP

Scenario 3: Ornamental Vegetation Needs Clearing

If there is excessive ornamental vegetation, then:

- Use a Third-Party Non-Utility Form 62-3448 to notify the customer of the clearance violation.
- Use an EC Form to identify that the UG or OH inspection cannot be completed until the vegetation is removed. In this case, use these FDAs:
    - FDA 1: Tree/Vine, Clearance, Remove
    - FDA 2: OH Facility, Limited Access, Inspect
    - Priority ‘B’
    - Recommended due date 0-3 months, not to exceed the CPUC due date for the map/MP

Requirements for Minor Work during Patrols

Generally, minor work is not performed during a patrol. The compliance inspector performs minor work during patrols when the following conditions are met:

- It is safe to do so.
- There are appropriate tools.
- There is a safety hazard.

During patrols, there are only 2 scenarios when minor work should be performed by the compliance inspector.

Scenario 1: Safety Hazard / Pending EC Notification

If a pending EC notification FDA is a safety hazard, then use the pending EC notification shop paper to record the minor work completed.

- Check the boxes titled ‘Completed.’
- Date and sign the pending EC notification.

Scenario 2: Safety Hazard / Able to Make Safe

If a safety hazard can be fixed with minor work, then use the OH/UG Minor Work Form to record the minor work.

Minor Work Process

1. Preparing For daily work

    - Make sure there are safety equipment, tools, and materials so that minor work can be performed while performing inspections.

2. During an inspection

    - After it has been determined that minor work can be done safely, complete all minor work repairs for the facility.

    - For each facility, a compliance inspector may perform minor work.

      Note: Be sure to confirm with a supervisor to determine the reasonable amount of time that authorized to perform minor work.

3. Record minor work in an approved electronic device according to one of the following options:

    - Option 1: Update a pending EC notification FDA if the FDA was completed as minor work.

    - Option 2: Use the OH or UG EC Form to document the minor work completed as capital minor work.

4. After an inspection

    - Use a timecard to record the time worked on this map/MP.

    - Minor work should not be documented on the daily log.

    - Minor work should not have a numbered location on the map/MP.

How to Record Minor Work

Report minor work in an approved electronic device. Refer to ELEC-1000, New Electric Compliance Inspector.

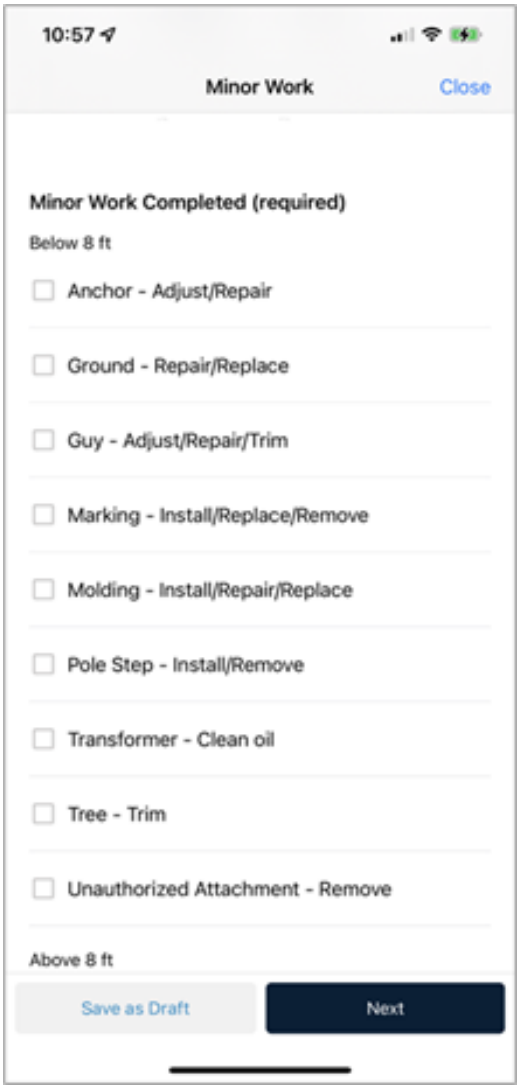


Figure 16. Examples of Minor Work (Subject to Change)

Recommended Workflow Steps

1. While working the map/MP, do so in accordance with safety practices.
2. Inspect the facility.
3. Determine if minor work is appropriate.
4. Observations may include one of following 6 scenarios.

Scenario 1: Minor Work Not Required

If there are no compelling abnormal conditions, opportunity work, or third party-caused infractions that negatively impact safety or reliability, then:

1. Highlight the map/MP.
2. Move to the next facility.

Scenario 2: Minor Work Required/No Pending EC Notification

If all compelling abnormal conditions, opportunity work, or third party-caused infractions that negatively impact safety or reliability can be resolved, then:

1. Perform minor work.
2. Use the appropriate minor work form to record work.
3. Highlight the map/MP.
4. Move to the next facility.

Scenario 3: Complete Pending EC Notification

If all compelling abnormal conditions, opportunity work, or third party-caused infractions that negatively impact safety or reliability can be resolved by completing all FDAs on a pending EC notification as minor work, then:

1. Perform maintenance repairs as minor work.
2. Complete FDAs on pending EC notification.
3. Highlight the map/MP.
4. Move to the next facility.

Scenario 4: Update Pending EC Notification

If there are new minor work activities identified, but they are not listed on the pending EC notification, then:

1. Do not perform any minor work.
2. Add new FDAs to the pending EC notification.
3. Highlight the map/MP.

4. Move to the next facility.

    - If the minor work is an immediate safety hazard, then perform the repair to make safe (for example, exposed ground in the first 8 feet with access to the public).

    - If the FDA repaired is on the pending EC, then complete the FDA on the EC and write “Minor work completed to make safe” in the comment section.

    - The crew, responding to the EC notification, will perform the minor work. In this case, an FDA for the minor work is included in the pending EC notification.

Scenario 5: Report New EC

If minor work cannot resolve all compelling abnormal conditions, opportunity work, or third party-caused infractions that negatively impact safety or reliability that require an EC Work Form, then:

1. Do not perform any minor work.

2. Indicate the location on the map/MP.

3. Mark the daily log.

4. Use an approved electronic device to document conditions.

5. Highlight the map/MP (if applicable).

6. Move to the next facility.

    - If the minor work is an immediate safety hazard, then perform the repair to make safe (for example, exposed ground in the first 8 feet with access to the public). Use the appropriate Minor Work Form to document the make safe repair work.
    - The crew, responding to the EC notification, will perform the minor work. In this case, an FDA for the minor work is included in the EC Form.

Scenario 6: Report New EC for Capital Minor Work

If capital minor work has been completed (OH full-service replacement or UG set of fault indicators), then:

1. Indicate the location on the map/MP.
2. Mark the daily log.
3. Use an approved electronic device to document conditions and complete the EC Work Form.
4. Highlight the map/MP (if applicable).
5. Move to the next facility.

Timekeeping

Timekeeping is determined by the form used to record minor work.

Table 2. Timekeeping Form and PM Order Number

Form	PM Order Number
Pending EC Notification	Use the division's standing expense order
Capital Minor Work	Use the division's standing capital order

For more information, see the Process Improvement & Technology Team SharePoint website, or contact a supervisor.

6 Assessments, Notifications, and Forms

This section describes the different types of notifications and forms used by compliance inspectors while performing their daily work.

6.1 Addressing Emergencies

If action was taken to repair, make safe, or eliminate any immediate hazard (Priority A or X conditions according to TD-8123P-200, "Open Electric Corrective (EC) Tag Validation Procedure"), then include clear documentation/comments on the EC Work Form to indicate the action taken. Refer to TD-2060S, "Emergency Electric Corrective Documentation Standard," for the emergency response procedure.

Note: Employees must immediately report to the nearest foreman or supervisor any hazardous condition or abnormal facility that, in their judgment, may be dangerous either to the general public, Company employees, third-party or Company property, and/or is likely to interrupt or significantly delay restoration of service to the Company's customers.

6.2 Vegetation Management Form vs EC Work Form

The following work is outside the scope of vegetation management and would require an OH or UG EC Work Form:

- Clearing for climbing space
- Clearing guy bobs
- Secondary trimming for reasons other than compliance
- Trimming for new business/reconstruction
- Vine removal

- Debris removal
- Weed abatement (except as required to meet PRC 4292 compliance and transmission fee strips)
- Clearing UG sub-structures
- Clearing road access
- Streetlight trimming

6.3 Pending EC Field Validation

For OH validations, follow TD-8123P-200, “Open Electric Corrective (EC) Tag Validation Procedure.”
For UG validations, follow Section 5.3, “Inspections,” on Page 25.

6.4 Links to Inspector Job Aids

For specific conditions, refer to the job aids listed below:

- TD-2305M-JA02, “Job Aid: Overhead Assessment”
- TD-2305M-JA03, “Job Aid: Underground Inspection”

6.5 Infrared Assessments

This section describes the requirements for conducting infrared assessments for overhead and underground equipment. OH IR assessments are performed annually by contractors on a subset of locations. This section is informational only. Refer to Utility Procedure TD-2022P-01, "Infrared (IR) Inspections of Electric Distribution Facilities,” for more information on OH IR assessments.

An IR cannot be canceled without specific infrared equipment or cannot be re-assessed without a special IR camera. IR notifications must be standalone. Do not combine them with other notifications. Do not cancel an OH Infrared notification.

During an UG Inspection, the compliance inspector performs tests using IR thermography. The results of the IR test are compared to PG&E’s published “Corrective Maintenance Priorities for Distribution Facilities–Qualitative Analysis Table” to determine corrective maintenance priority. For details, refer to TD-2305M-JA03, "Job Aid: Underground Inspection."

Use IR imaging and temperature measuring systems as diagnostic tools in both electric distribution system inspections and in preventative maintenance programs. IR imaging can accurately identify and initiate the repair or replacement of faulty devices, equipment, and components.

Based on industry specifications, connectors have lower operating temperatures than their respective conductors. Any time the temperature of a connector is greater than the temperature of its respective conductor, a higher resistance connection exists, and a failure can be expected, but not precisely predicted. Connector degradation occurs faster with an increase in load or temperature.

Note: For insulated conductor systems, the temperature measured at the surface of an insulated conductor or component may be between 20% and 50% of the actual temperature of the targeted conductor or component. For example, if the actual temperature of the component is 100°C (212°F), the measured temperature could be between 20°and 50°C (68°F and 122°F, respectively).

UG IR assessments are performed during UG inspections.

Equipment

IR imaging systems are used to detect and record all heat being radiated in their field of view.

- The IR camera uses an image-scanning technique to specifically identify heat radiated from a target and its background.
- These units capture and store the heat images pictorially for immediate or future evaluation.
- By using these units, the operator can pinpoint the location of the hottest spot on the target being observed.

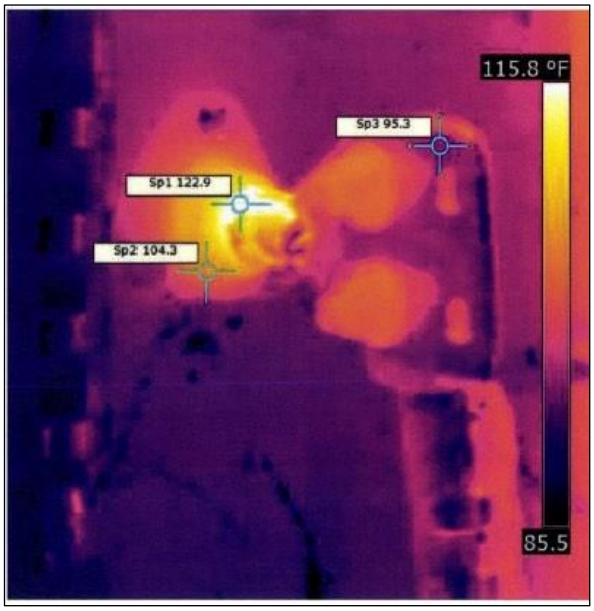


Figure 17. IR Heat Image

Requirements

1. Perform a visual inspection for physical damage and noticeable defects in cables and/or elbows.
2. Perform an IR assessment of cables and connectors.
3. Determine corrective maintenance priority:
    - Refer to TD-2305M-JA03, "Job Aid: Underground Inspection."
    - There are two methods used in IR inspections:
        - Qualitative analysis–Refers to relative temperature values of a hotspot with respect to other parts of the equipment with similar conditions.
        - Quantitative analysis–Refers to actual temperature values measured from the hotspot.
    - Between the methods above, the most reliable is the qualitative analysis because it is not affected by environmental factors such as ambient temperature, humidity, and emissivity as is the quantitative analysis.

IR Scanning Technique

If the color pallet of the thermal image shows an elevated differential temperature between the targeted component and conductor/cable, follow the steps below:

1. Center the targeted component in the viewer or sight of the IR scanning device and observe the measured temperatures.
2. Scan approximately 1 to 2 feet of the conductor/cable entering and/or leaving the targeted image and observe the measured temperatures.

IR Reference Documents and Links

- Numbered Document 068178, “Distribution Transformer Temperature”
- TD-2305M-JA03, "Job Aid: Underground Inspection"
- TD-2022P-01, "Infrared (IR) Inspections of Electric Distribution Facilities"

6.6 Forms Catalogue

This section provides the names of paper forms used by compliance inspectors.

- Map Correction Form: For use in UG inspections

- TD-9001P-01-F01, “Patrol/Inspection Map Correction Form”

- Vault Discharge Report (VDR) Form
  - "VDR Form"

- Field Paving Form
  - "Field Paving Form"

7 Document Information

7.1 Definitions

Abrasion – For the purpose of inspections and patrols, abrasion is damage to the insulation resulting from friction between a tree and a conductor. Scuffing or polishing of the conductor insulation is not considered abrasion.

Compelling abnormal condition – Any electric distribution pole, equipment, component, conductors, vegetation, or third-party condition that causes a safety or fire ignition risk that may adversely impact public safety and/or service reliability in the next 5 years.

Compliance inspector – A Company representative, who by reason of knowledge, required annual training, testing, and work experience, is qualified to perform patrol and inspection duties as identified in this manual.

Corrective inspection – An inspection performed by a compliance inspector in which compelling abnormal conditions, opportunity work, and third party-caused infractions are reported.

Corrective maintenance – Maintenance activities that restore facilities that have failed or contributed to an unacceptable operating condition, typically following an unusual and unforeseen incident. These may include assessment, repair, and replacement activities associated with the restoration of the facility.

Corrective patrol – A patrol performed by a compliance inspector in which compelling abnormal conditions and third party-caused infractions are reported.

Detailed inspection – A thorough examination of individual components, structures, and equipment through visual observation and/or routine diagnostic tests.

Distribution facilities – Any conductors, structures, and associated equipment that operate at voltages up to 50,000 volts.

EC (Electric Corrective) notification – The SAP record that holds the data identifying a compelling abnormal condition or opportunity work.

Electric maintenance patrol/inspection daily log – A form or electronic record used to document inspections and identified abnormalities that require correction, follow-up inspection, or referral to other departments or entities.

Emissivity – The relative ability of a surface to emit heat by radiation. Emissivity is the ratio of the heat emitted by a surface compared to that emitted by a blackbody.

Emittance value – The ratio of the intensity of thermal radiation, at a given wavelength or spectral waveband, from a target to the thermal radiation emitted by a blackbody of the same temperature as the target.

FDA – Facility/Damage/Action. Used to describe the facility that is affected, the condition that was observed, and the action to address the condition.

Forms catalogue – A list of blank forms used by compliance inspectors to record field activity and to document compelling abnormal conditions, opportunity work, and third-party infractions. Note: Many forms are now available in MobileApp.

Identified maintenance condition – An identified condition on the Company's electric distribution facilities that requires maintenance.

Infrared inspection – A special type of diagnostic test using infrared (IR) thermography.

Inspection – A visual examination of applicable utility facilities (components, equipment, and structures) to look for abnormalities or circumstances that will adversely impact safety, service reliability, or asset life. This will include only the exterior examination of equipment, components, and visible underground secondary/services substructures. (For "detailed inspection" or "patrol," see the specific definitions in this section.)

Inspection map – A map/MP of electric facilities with adequate detail to sufficiently record facilities, equipment, and structures that have been inspected.

Interval – A specified, maximum time period between inspections, patrols, or equipment testing of overhead (OH) and underground (UG) electric distribution facilities.

Maintenance – Preventative or corrective actions to ensure the safety and reliability of electric distribution facilities. Maintenance includes capital and expense expenditures for tasks associated with the inspection, repair, refurbishment, and possible replacement of existing electric distribution facilities so that they can continue to perform within acceptable parameters.

Maintenance plan – An electronic record in SAP of electric facilities to be inspected or patrolled. Maintenance plans have specific PM orders to charge against.

Minor work – Work that can be accomplished safely and efficiently at the site of the electric distribution facility by a Qualified Company Representative (QCR).

Overhead facilities – Electric distribution conductors, components, structures, and associated equipment constructed above ground level.

Patrol – A simple, visual examination of applicable utility facilities (equipment and structures) to identify obvious structural problems and hazards. Patrols may be carried out in the course of other Company business, provided certain requirements are met. An emergency patrol performed at night, usually precipitated by an unusual system incident, must not be considered as, or substituted for, a “patrol” of electric distribution facilities.

Patrol map – A map/MP of electric facilities with adequate detail to sufficiently identify the overhead and underground equipment and structures that were patrolled.

Preventative inspection – A scheduled inspection performed by a compliance inspector.

Preventative maintenance – Activities to ensure those facilities and their associated components continue to perform within accepted parameters. This may include patrol and inspection of facilities.

Preventative patrol – A scheduled patrol performed by a compliance inspector.

Priority – Refers to the urgency to perform repairs identified in a notification.

Qualified Company Representative (QCR) – A Company representative, who by reason of knowledge, required training, and work experience, can accurately perform the required/assigned task on electric distribution facilities.

Radiate – To emit. When an object radiates, it emits or sends out electromagnetic waves.

Reference temperature – The temperature of a like piece of equipment at the same location as that registering the apparatus (“fault”) temperature.

Safety conditions – Conditions where a known or probable hazardous condition is present and the probability exists of personal injury to third parties or Company employees, property damage, or the release of contaminants to the environment.

SAP – The current, established, company system of record.

Stain/residual stain – A mark on the equipment that appears dry.

Strain – For the purpose of inspections and patrols, strain is defined as additional tension on the conductor that is moving the conductor outside of normal slack or pushing wires closer together. Contact between tree limbs and conductors, in and of themselves, does not constitute strain.

Temperature rise (or temperature differential) – The difference in temperature between the apparatus (“fault”) temperature and the reference temperature.

Testing – A method or process used in conducting an examination or trial to obtain an indicator, along with recording the data from the event.

Thermography – Any photographic, videotaped, computer-generated, or graphic record of information derived from an IR inspection.

Underground facilities – Electric distribution conductors, components, structures, and associated equipment constructed at or below ground level, including pad-mounted equipment and risers.

Vegetation management – The inspection, trimming, and removal of trees within the vicinity of electric facilities to ensure safe and reliable distribution service.

7.2 Implementation Responsibilities

Jo Fogolin, Manager, Process Improvement, Process Improvement and Technology Solutions, and Paul Kavanaugh, Principal Program Manager, Process Improvement and Technology Solutions are responsible for communicating this manual to target audiences.

7.3 Governing Documents

General Order (GO) 165, Inspection Requirements for Electric Distribution and Transmission Facilities

7.4 Compliance Requirement / Regulatory Commitment

Information and Records Management:

PG&E Data, Information, and Records are company assets that must be traceable, verifiable, accurate, and complete and can be retrieved upon request. Functional Areas are responsible for complying with the Information & Records Governance Policy, Standards, and the Information and Records Retention Schedule. Refer to GOV-7101S, "Enterprise Records and Information Management Standard" for further guidance or contact Information & Records Governance at Information&RecordsGovernance@pge.com.

Record Retention Requirements

- Records may be in paper and/or electronic form and must be retained as specified by Table 3, "Record Retention Matrix," on Page 57.

  Note: Internal Guidance from the PG&E Law Department, etc., may override program minimum record retention requirements; as such, records may need to be retained in PG&E or off-site storage facilities.

- Equipment testing records may be in paper and/or electronic form and must be retained as specified by Table 3.

- In addition to these requirements, each completed EC notification, if associated with an inspection or patrol, must be retained for at least 1 year after all the necessary repairs or maintenance on the notification have been completed.

- All records must be retained in accordance with the applicable document retention policy. No record, whether hardcopy or in electronic form, may be destroyed without the program manager's written authorization. In addition to normal record company requirements, GO-165 requires the timelines outlined in the following section.

G.O. 165 Record Retention Guidelines

Table 3. Record Retention Matrix

Record Type	Requirement	Minimum Record Retention
OH Inspection Maps/MPs, Electric Maintenance Patrol/Inspection Daily Logs, and Paper or Electronic Notification Forms	2 Inspection cycles or 5 years, whichever is longer	10
UG Inspection Maps/MPs, Electric Maintenance Patrol/Inspection Daily Logs, and Paper or Electronic Notification Forms	2 Inspection cycles or 5 years, whichever is longer	6
OH Patrol Maps/MPs, Electric Maintenance Patrol/Inspection Daily Logs, and Paper or Electronic Notification Forms	2 Patrol cycles or 5 years, whichever is longer	5
UG Patrol Maps/MPs, Electric Maintenance Patrol/Inspection Daily Logs, and Paper or Electronic Notification Forms	2 Patrol cycles or 5 years, whichever is longer	5
OH IR Inspection Maps/MPs, Electric Maintenance Patrol/Inspection Daily Logs, and Paper or Electronic Notification Forms	2 Inspection cycles or 5 years, whichever is longer	10
Manhole Inspections	2 Inspection cycles or 5 years, whichever is longer	6
Equipment Testing Records (Utility Std Equipment)	2 test cycles or 6 years, whichever is longer	6
Completed, Signed EC Notifications Associated with an Inspection or Patrol	2 Inspection cycles or 5 years, whichever is longer, **and** at least 1 year after all necessary repairs or maintenance on the Notification have been completed	6

Record Type	Requirement	Minimum Record Retention
Completed, Signed EC Notifications Not Associated with an Inspection or Patrol	6 years, **and** at least 1 year after all necessary repairs or maintenance on the Notification have been completed	6
Insulator-Cleaning Records	2 Inspection cycles or 5 years, whichever is longer	5
Streetlight Group Replacement Records	2 Inspection cycles or 5 years, whichever is longer	10

7.5 Reference Documents

Developmental References

TD-9001P-01-F01, “Patrol/Inspection Map Correction Form”

TD-2321P-01-F01, "Bird Incident Reporting Form"

Numbered Document 068178, “Distribution Transformer Temperature”

TD-2022P-01, "Infrared (IR) Inspections of Electric Distribution Facilities"

Supplemental References

ERIM SharePoint site

Job Aid TD-2305M-JA02, “Overhead Assessment”

TD-2305M-JA03, “Job Aid, Underground Inspection”

Utility Standard SAFE-1002S, “Motor Vehicle Safety Standard”

Code of Safe Practices (CSP)

Safety Handbook

SAFE-3050, “System Inspections Onboarding”

ELEC-1000, “New Electric Compliance Inspector”

TECH-0020, “Compliance Inspector Refresher Training”

Contractors:

- SAFE-3050, “System Inspection Onboarding”

- ELEC-0341, “System Inspection Elec Dis Day-2”
- ELEC-0342, “System Inspection Elec Dis Day-3”

Utility Standard TD-2321S, “Avian Protection Plan.”

Third-Party Form 62-3447

Third-Party Non-Utility Form 62-3448

ENV 2202P-01, "Field Guide: Vault Dewatering"

Utility Standard TD-2060S, “Emergency Electric Corrective Documentation Standard”

Utility Standard TD-8125S, "Level 2 Priority X Electric Corrective (EC) Standard"

Utility Standard TD-9213S–Attachment 1(A), “Uniform Symbols for Electric Estimating and Mapping (Devices/Structures)”

Process Improvement & Technology Team SharePoint website

TD-8123P-200, “Open Electric Corrective (EC) Tag Validation Procedure”

Utility Procedure TD-2022P-01, "Infrared (IR) Inspections of Electric Distribution Facilities”

"Field Paving Form"

"VDR Form"

7.6 Appendices

NA

7.7 Attachments

NA

7.8 Document Recision

This utility manual cancels Utility Manual TD-2305M, “Electric Distribution Preventative Maintenance Manual,” Rev. 1, dated 03/29/2024.

7.9 Document Approver

Cynthia King-Felix, Director, Distribution Inspection Execution

7.10 Document Owner

Jo Fogolin, Manager, Process Improvement, Process Improvement and Technology Solutions

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7.11 Document Contact

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Paul Kavanaugh, Principal Program Manager, Process Improvement and Technology Solutions

7.12 Revision Notes

Where?	What Changed?
Entire manual	Reformatted according to new Guidance Document Management requirements.