Gas Transmission – Maintenance and Construction
QUALIFICATION EVALUATION FORMS

This document contains all the required forms and tools to properly qualify an employee in the given OQ task. The following instructions will guide you in how to complete this process.

This document contains the following documents:

Pages 1 and 2: Official DOT input forms. This document is to be completed by an approved OQ Evaluator for the given task. Field supervisors are not to sign and submit this document unless they are an approved evaluator.

Page 3 : This table contains the required training requirements for either initial or subsequent OQ Evaluation. It specifies the required formal training, OJT (via FTO's) and performance testing (JPM's) that must be completed prior to OQ Evaluation.

Pages 4 – end: These contain the actual Field Training Outlines necessary to complete any required OJT and Job Performance Measurements (JPM's) associated with this task. **These must be completed prior to OQ Evaluation**.

To complete the **OQ Process** follow these steps:

1. Go to the T drive and find the desired OQ folder for the given OQ task

   T:\TRAINING\OPERATOR QUALIFICATION\ New Initial and Subsequent Forms

2. Determine if the employee requires initial or subsequent evaluation.
3. See page 3 of the document which specifies the required training.
4. Schedule the employee to complete any required formal training.
5. Working with your district MP, schedule the employee to complete any required OJT or testing (see pages 4 to the end)
6. If formal training, Field Training Outlines and JPM's are complete, contact [redacted] to schedule an evaluation. The primary role of the Evaluator is to assess knowledge, skills and abilities. They are not there to provide training.
7. Upon completion of OQ Evaluation, page 1 of this document is sent to [redacted] for processing. Do not send in this form directly to HR Learning Services.
8. The original DOT Form (page 1) is forwarded to HRLS by [redacted] This notification is then input into Training Server and will appear on the DOT Operator Qualification Report for the employee's district. Maintenance Planning is also notified so that PLM (report 70) can be updated with current information.

The employee can now be properly scheduled to perform OQ associated work.

Pacific Gas and Electric Company

DOT OPERATOR QUALIFICATION

QUALIFICATION EVALUATION

❒ **Initial**
❒ **Subsequent**

EMPLOYEE FULL NAME (PRINT)		Last four of SS#

Job Title _____ Area _____ Work Location _____

Subtask Name Atmospheric Corrosion / Monitor Subtask #: 03-04.00

SUBTASK OBJECTIVE: Using one or more of the below "Evaluation Methods", demonstrated the knowledge, skill and ability to perform this task following these qualification criteria.

		Qualified
1.	**Safety Requirements:**	❑
	• Ability to identify and resolve abnormal operating condition(s)	
2.	**Access, understand and apply the following Company Standard(s):**	❑
	• Gas Standards - O – 16, page 9 of 25 Section 8, UO Standard D-S0353 and CGT Standard S-4112	
3.	**Inspect Above Ground Gas Facilities:**	❑
	• Observe and grade condition of corrosion on facilities	
4.	**Analyze Active Corrosion:**	❑
	• Determine severity of corrosion present • Take appropriate action to prevent further corrosion	
5.	**Surveyed Area Documentation:**	❑
	• Complete atmospheric corrosion forms, documenting extent of corrosion and action taken	

EVALUTION METHODS (Check all that apply)

Observation On-The-Job Performance ❑ Observation by Simulation ❑ Oral Test ❑
Observation by On-The-Job Training ❑ Written Base Test ❑ OTHER - Field Performance Audit ❑

Comments / Actions:

EVALUATOR'S NAME AND CORP ID | EVALUATOR'S SIGNATURE | DATE

6/23/05 version
*OM&C/FSD - Mail completed **original** Qualification Evaluation form(s) to [redacted] Room B101 @ 3301 Crow Canyon Rd, San Ramon, CA.*
*CGT - Mail completed **original** Qualification Evaluation form(s) to [redacted] @ 375 N. Wiget Lane, Walnut Creek, CA.*
OM&C/FSD/CGT - Send copy to LGOQPC (Local Gas Operator Qualification Plan Coordinator)

Initial/Subsequent Evaluator Instructions

Subtask Name: Atmospheric Corrosion / Monitor Subtask#: 03-04.00

Evaluator must provide the following reference material(s):

- Abnormal Operating Condition (AOC) Job Aid
- Gas Standard

Note:
Using reference material(s) listed above, individuals must answer all questions correctly. If individual cannot provide the correct answer(s) or demonstrate performance after two additional attempts, the Evaluator should refer to the Operator Qualification Basic Plan Manual, Section 1.3.3.3 for further instructions.

Knowledge

Criteria #	Requirement
1.	Review Annual Operator Qualification Job Aid and Abnormal Operating Conditions (AOC) with individual(s).
2.	Provide individual with Atmosphere Corrosion / Monitor Test.

Performance

3. – 5.	Individual must perform checks as required on the Qualification Evaluation for each of these following method(s): • Inspect Above Ground Gas Facilities • Analyze Active Corrosion • Surveyed Area Documentation **Note:** Skill must be demonstrated through simulation or actual field performance. Individual must verbalize each action step (bulleted items in Steps 3-5).

GSMTS Operator Qualification Training Requirements

CORROSION CONTROL **Task 03-04** **Atmospheric Corrosion**	**Initial Qualification**[1]	**Initial Qualification**[2]	**Subsequent Qualification**[3]
I. **Recommended Training or Equivalent** 1.GSM&TS Pipe Inspection Training or 2. GAS_0003 Learning Servcs	Must follow the Company/ Union Program	Required	Optional
II. Text and Reference Review		Required: Text and References listed in Training Binder FTO that pertain to Vol. 2, TB 2-8.8	Required: Review of Gas Standard S4133 and applicable Job Aids.
III. On-The-Job Training Job Performance Measure JPM		Required: JPM Vol 2, TB 2-8.8	Required: JPM Vol 2, TB 2-8.8
IV. Academic Requirements		No further requirement (Testing completed with training)	Subsequent OQ Test
V. Documentation	Original OQ form kept in WC; Original JPM's kept in District's training file.		

[1] Employee new to PG&E (also pertains to an existing GSMTS Journeyman advancing to the next classification in the training program).
[2] PG&E Journeyman with task in base classification but is not Operator Qualified to do the task.
[3] PG&E Journeyman currently Operator Qualified in the task.

Supports OQ tasks: 03-02, 03-03, 03-04, 03-05, 03-06, 03-07, 03-08, 03-09, 03-10, 03-11

Objective	**Trainee Name:** [Click here and enter name]

The trainee will be able to correctly perform:

- the tasks associated with corrosion cells and external corrosion.
- basic operations and maintenance procedures for pipeline cathodic protection systems.

OJT Instructions	**OJT Hours Guideline:** 228 hours

Reviewer's Role – A qualified reviewer (journeyperson or equivalent) will guide the trainee in completing the objectives for each sub task in this outline. Work with the trainee by discussing, explaining, or performing as necessary the concepts associated with each sub task.

Trainee's Role – Under direction of a qualified reviewer, the trainee will review all text and reference material prior to performing the training sub tasks described below to prepare for completing a Job Performance Measure.

OJT Process Steps

1. GMS reviews FTO requirements with SME.
2. GMS determines Sub tasks & OJT hours.
3. GMS schedules with WMS.
4. SME and Trainee complete OJT hours.
5. Completed –signed FTO is returned to GMS.
6. GMS verifies completed FTO.
7. GMS schedules JPM.

Text and References:

- Gas Information Bulletin 176 – Casing Venting and Electrical Isolation Requirements
- Gas Standards and Specifications (GS&S):
  - E-30 Selecting and Applying Coatings on Exposed Gas Piping
  - E-35 Selecting and Applying Coatings for Buried Transmission Pipe
  - O-10, 10.1, and 10.2 Electrolysis Test Stations
  - O-11 Cathodic Protection Rectifiers
  - O-71 Copper-Copper Sulfate Ref Electrodes
  - O-72 Approved Multimeters
  - #431 Cathodic Protection
- PG&E Approved Schools and On-Site Training
- UO Standards:
  - S4112 Physical Inspection of Pipelines
  - S4126 Cathodic Protection
  - S4133 Corrosion control of Gas Transmission Facilities
  - S4711 Pipe Wrap Removal

Job Aids

- Air-to-Soil Transitions
- Calibrate a Copper-Copper Sulfate Ref Electrode
- Cathodic Protection
- Coating Inspection
- Corrosion Control Rectifier Troubleshooting
- Ground Resistance Tester
- How To Measure Structure To Soil Potential With A DPM
- How To Prepare the DPM prior to use
- How To Replace The Batteries In the VC-1 Calibrator
- How To Replace The Battery In the Digital Potential Meter Model DPM
- How To Troubleshoot A Goodall Rectifier
- How To Troubleshoot A Universal Rectifier
- Spanning and Taking Pipe to Soil Readings

Trainee Materials:

- (Maps to locate an ETS)
- PPE
- Cad welder, volt ohm meter, pipe-to-soil meter, half cell

Safety Requirements:

- In performance of these tasks, be able to identify and resolve any abnormal operating conditions.
- Provide work protection

Supports OQ tasks: 03-02, 03-03, 03-04, 03-05, 03-06, 03-07, 03-08, 03-09, 03-10, 03-11

Major Sub-Tasks:

Vol 2 TB 2-8.1 Corrosion Cell Terminology
Vol 2 TB 2-8.2 Pipe to Soil Reads
Vol 2 TB 2-8.3 Rectifier Maintenance
Vol 2 TB 2-8.4 Rectifier Reads and Basic Inspections
Vol 2 TB 2-8.5 Installation of Anodes
Vol 2 TB 2-8.6 Transmission Pipe Coatings
Vol 2 TB 2-8.7 Internal Corrosion/Monitor Atmospheric Corrosion/Monitor
Vol 2 TB 2-8.8 Physical Inspect of Pipelines
Vol 2 TB 2-8.9 Electrical Isolation – Testing/ Inspecting
Vol 2 TB 2-8.10 Cathodic Protection System Maintenance

Sub Task Vol 2 TB 2 – 8.8 **Atmospheric Corrosion / Monitor**

Objective: The trainee will be able to correctly explain basic concepts and applications associated with atmospheric corrosion monitoring.

Demonstrate and/or explain:

- atmospheric corrosion.
- how to observe if atmospheric corrosion is present on above-ground facilities.
- how to determine the severity of the corrosion present.
- what action should be taken to prevent further corrosion when atmospheric corrosion is present.
- documentation procedures.

Hours Recommended	OJT Hours Received*	Trainee	Reviewer	Date
20 Hours				

Operator Qualification – Job Performance Measure			
Trainee Name Last First	Corp ID 4 digits	SSN Last 4 digits	Location Headquarters or District Name

Directions: This form documents the Job Performance Measures of the named trainee. Upon completion, the results will be put into the Operator Qualification database. The Evaluator will:

- observe the tasks as they are performed or described and rate the results.
- stop a task if the participant's actions will endanger life or equipment.

Safety Requirements:

- In performance of these tasks, be able to identify and resolve any abnormal operating conditions.
- Wear the appropriate clothing and use all personal safety equipment (PPE).
- Provide work protection.
- Code of Safe Practices Section 13.

Sub Task Vol 2 TB 2-8.8 **Atmospheric Corrosion/ Monitor**			
Task Element	Evaluation Method P = Perform S = Simulate D = Describe	Results S = Satisfactory U = Unsatisfactory NA = Not Applicable	Evaluator Initials Date
Demonstrate basic concepts and applications associated with atmospheric corrosion monitoring.	Method P S D	Results S U NA	Initials Date

Standard: The trainee can correctly:

- explain atmospheric corrosion.
- demonstrate how to observe if atmospheric corrosion is present on above-ground facilities.
- demonstrate how to determine the severity of the corrosion present.
- explain what action should be taken to prevent further corrosion when atmospheric corrosion is present.
- complete required documentation.

Link to UO Standard S4133:
http://wwwedm3/cgi-bin/doccontent.dll?LibraryName=dmspge01^dmsedm01&SystemType=2&LogonId=f45b323a86d40dc5dd8db6d5af529850&DocId=003741662&Page=1

Job Aids:

Job Aid Vol 2 TB2-8a How To Troubleshoot A Goodall Rectifier

Job Aid Vol 2 TB2-8b How To Troubleshoot A Universal Rectifier

Job Aid Vol 2 TB2-8c How To Replace The Battery In the Digital Potential Meter Model DPM

Job Aid Vol 2 TB2-8d How To Prepare the Digital Potential Meter Prior to Use

Job Aid Vol 2 TB2-8e How To Measure A Structure To Soil Potential With A DPM

Job Aid Vol 2 TB2-8f Ground Resistance Tester

Job Aid Vol 2 TB2-8g How To Replace The Batteries In the VC-1 Calibrator

Job Aid Vol 2 TB2-8h Cathodic Protection

Job Aid Vol 2 TB2-8i Corrosion Control Rectifier Troubleshooting

Job Aid Vol 2 TB2-8j Spanning and Taking Pipe to Soil Readings

Job Aid Vol 2 TB2-8k Calibrate a Copper-Copper Sulfate Reference Electrode

Job Aid Vol 2 TB2-8L Coating Inspection

Job Aid Vol 2 TB2-8M Air to Soil Transitions

For other supporting job aids for this module, see Volume 3 TB1:

Job Aid Vol 3 TB 1.12a How to Use a Multimeter

Job Aid Vol 3 TB 1.12b How to Take DC Voltage Measurements

Job Aid Vol 3 TB 1.12c How to Take AC Voltage Measurements

Job Aid Vol 3 TB 1.12d How to Take DC Amperage Measurements

Job Aid Vol 3 TB 1.12e How to Take Resistance Measurements

Job Aid Vol 3 TB 1.12f How to Take a Conductivity Test

Job Aid Vol 3 TB 1.12g Spanning and Taking Pipe to Soil Readings

Job Aid Vol 3 TB 1.12h How to Troubleshoot An AC Switchbox

Link to Job Aids: http://wwwint02/gsm/training/job_aids.htm