# 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 <u>not to sign</u> 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:

- 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 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 processing. Do not send in this form directly to HR Learning Services.
- 8. The original DOT Form (page 1) is forwarded to HRLS by 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.



#### QUALIFICATION EVALUATION

initiai
Subsequent

	EMPLOYEE FULL NAME (PRINT)	l act	four of SS#	
	LIVE EGILL FOLL WITH VITABLE V	Lasi		_
Job	Title Area Work Location			
Sub	task Name Mark and Locate Facilities	Subtask #:	05-01.00	
	TASK OBJECTIVE: Using one or more of the below "Evaluation Methods", demonstrated the known to the second of the s	owledge, skill and	ability to perform this	
lask	following these qualification criteria.		Qualifie	ed T
1.	Safety Requirements:			=
	Ability to identify and resolve abnormal operating condition(s)			
2.	Access, understand and apply the following Company Standard(s):			_
	<ul> <li>Gas Standards - UO Standard S4412, UO Guideline G14412, Specifications M-60 through M-guidelines</li> </ul>	62, Interpret the U	JSA	
3.	Gas & Electric Map Reading:			
	Explain and interpret gas map symbols			
L_	Explain and interpret electric map symbols			4
4.	Equipment Check:  Batteries: - Transmitter & Receiver			닉
	Case Condition			
	Audio Signal			
	Visual Signal			
	Signal Strength read out			
	Understands Depth Determination			
	Check Out Procedures  Trackle Check Procedures			
5.	Trouble Shoot Procedures  Conductive Method:			$\dashv$
J.	Set-up locator – insert the red & black connector into the transmitter			-
	Attach red connector directly to pipe or cable			
	Attach black connector to ground stake			
	Ensures and understands proper transmitter grounding			
	Interpret the signal strength on the receiver			
6.	Inductive w/Coupler Method:			
	Set-up locator			
	Ensures that both ends of target are grounded as required for this method of locating to work			
	<ul> <li>Insert the inductive coupler connector into the transmitter</li> <li>Clamp inductive coupler around electric cable or ground</li> </ul>			
	Interpret the signal strength on the receiver			
7.	Inductive Method:			$\dashv$
	Set-up locator			ᅥ
	Place the transmitter over conductor for locate			
	• Locates at a distance from transmitter to avoid "air-coupling" between transmitter and receiver	•		
	Interpret the signal strength on the receiver			
	Understands pit-falls of this method of locating as well as it being the least preferred method of locating as well as it being the location as well as it being the location as well as it being the location as well as it being the least preferred method of locating as well as it being the location as well as	of locating		
E\ / A	LUTION METUODO (Oblll 4b -4l-)			
	LUTION METHODS (Check all that apply) ervation On-The-Job Performance □ Observation by Simulation □	Oral Test □		
	ervation on The-Job Penormance		Performance Audit 0	٦ .
	,	OTTIER TION	T OTTOTT I GITTO T I GITTO	_
Con	ments / Actions:			
	EVALUATOR'S NAME AND CORP ID EVALUATOR'S SIGNATURE		DATE	
	EVILEDATION OF ORDINATION			
	(05 version			1
	C/FSD - Mail completed <b>original</b> Qualification Evaluation form(s) to Room B101 @ 330 - Mail completed <b>original</b> Qualification Evaluation form(s) to @ 375 N. Wiget Lane, Wa		a, San Ramon, CA.	
	C/FSD/CGT - Send copy to LGOQPC (Local Gas Operator Qualification Plan Coordinator)	at Olook, OA.		
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### Initial/Subsequent Evaluator Instructions

Subtask Name: Mark and Locate Facilities Subtask#: 05-01.00

#### Evaluator must provide the following reference material(s):

- Abnormal Operating Condition (AOC) Job Aid
- Gas Standard
- Pipe Locating Mode Job Aid
- Metrotech 9890 XT Job Aid
- Set-up and System Check Job Aid
- Locating Grounding Grid and Control Wires Job Aid
- Eight Steps to a Safe Excavation Job Aid

#### 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. – 3.	Provide individual with Mark & Locate Facilities Test.					

_Pe	erforman	nce
2	4. – 7.	Individual must perform checks as required on the Qualification Evaluation for each of these following method(s):  • Equipment Check • Conductive • Inductive w/Coupler • Inductive
		Note: Skill must be demonstrated through simulation or actual field performance. Individual must

verbalize each action step (bulleted items in Steps 4-7).

OM&C/FSD/CGT - Send copy to LGOQPC (Local Gas Operator Qualification Plan Coordinator)

6/23/05 version OM&C/FSD - Mail completed original Qualification Evaluation form(s) to Room B101 @ 3301 Crow Canyon Rd, San Ramon, CA. CGT - Mail completed original Qualification Evaluation form(s) to @ 375 N. Wiget Lane, Walnut Creek, CA.

## **GSMTS** Operator Qualification Training Requirements

LOCATE FACILITIES  Task 05-01  Mark and Locate	Initial Qualification <sup>(1)</sup>	<u>Initial</u> <u>Qualification<sup>(2)</sup></u>	Subsequent Qualification <sup>(3)</sup>		
I. Recommended Training Or Equivalent  1. GAS_0015 Learning Srvcs	Must follow the Company/Unio n Program	Required	Optional		
II. Text and Reference Review		Required: Text and References listed in Training Binder FTO that pertain to Vol. 1, TB 2.5.1 thru TB 2.5.4	Required: Review of Standards in Protection of Underground Infrastructure Manual. Applicable Vol. 1, TB 2.5 JPM Job Aids.		
III. On-The-Job Training  Job Performance Measure JPM		Required: JPM Vol. 1, TB 2.5.1 thru 2.5.4	Required: JPM Vol. 1, TB 2.5.1		
IV. Academic Requirements	<b>1</b>	No further requirement (Testing completed with training)	Subsequent OQ Test		
V. Documentation	<ul><li><u>Original OQ form kept in WC; Original JPM's kept in District's training file.</u></li></ul>				

Page 3

GTR0009638 Material Redacted

<sup>(1)</sup> 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.

Field Training Outline
Supports OQ tasks: 05-01, 05-02, 08-01, 08-03

FTO Vol 1 TB 2.5

### **Objective**

**Trainee Name:** 

[Click here and enter name]

The trainee will be able to correctly and safely:

- · determine USA locate position using GIS.
- perform mark and locate procedures, pipeline patrolling, and standby duties.
- process USA reports as outlined in the company Standards.

#### **OJT Instructions**

#### **OJT Hours Guideline:**

46 hours

**Reviewer's Role** – A qualified reviewer (journeyperson or equivalent) will <u>guide</u> 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 <u>review all text and reference material before performing the training sub tasks</u> 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: Trainee must review all material and attend required classes before performing listed tasks.

- · Code of Safe Practices Book
- DGSAVE Manual
- GS&S L Section for Pipeline Markers
- Job Aids:
  - TB2-9a Patrolling Pipelines and Mains
  - TB2-9b Pipe Locating Conductive and Inductive Methods
  - TB2-9c 9890XT Pipeline Locator
- · Operating Maps and Diagram book
- PG&E approved Schools and/or Onsite Training (See recommended Centralized School list)

- Protection of Underground Infrastructure
   Manual (PUI) -- contains the following:
  - UO Standards S4412, G14412
  - Bulletin 151
  - GS&S M-60 thru M-62
- TPC Training System Guide #306 Piping Systems
- UO Standards:
  - S4111 Patrolling Pipelines and Mains
  - S4122 Pipeline Markers
- USA ticket processing software

#### **Trainee Materials:**

- Inductive Pipe Locator and Mechanical Probe
- Personal Protective Equipment
- Conductive Pipe Locator

- Various stakes (fiberglass or wood)
- Aerial or Pipeline Patrol Report
- Marking paint (for roads)

#### 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.

Initial-Sub Eval-Inst 05-01.doc March 2006 Page 4

Marking and Locating Pipelines

Field Training Outline Supports OQ tasks: 05-01, 05-02, 08-01, 08-03 FTO Vol 1 TB 2.5

**USA Requests** 

Major Sub-Tasks:

Vol 2 TB 2-5.1 Locating Transmission Pipelines Vol 2 TB 2-5.4

Vol 2 TB 2-5.2 Locating Transmission Pipelines using Vol 2 TB 2-5.5 Standby Pipeline

a mechanical Probe

Vol 2 TB 2-5.6 Patrolling Pipelines and Vol 2 TB 2-5.3 Third Party Mark and Locate

Maintaining Line Markers

#### Sub Task Vol 1 TB 2.5.1 Locating Transmission Pipelines

Note: This sub-task supports both the Operator Mechanic and the Transmission Mechanic job duties

Objective: Using the company-approved equipment identified in the GS&S-M Section, the trainee will be able to correctly locate underground utilities by the conductive and inductive methods.

#### Demonstrate and/or explain:

- how to use a gas map in DGSAVE to locate pipeline infrastructures.
- the theory of conductive and inductive methods of pipeline location.
- the correct selection of locating equipment.
- how to inspect the locating equipment (equipment check).
- how to properly calibrate the locating equipment.
- the operation and maintenance of locating equipment.
- the conductive and inductive methods of pipeline locating.
- the responsibilities of marking and locating a pipeline, including identifying abnormal operating conditions.

Note: For supporting job aids re locating equipment used in your district, see Text and References section.

Hours Recommended	OJT Hours Received*	Trainee	Reviewer	Date	
12 Hours		[Initials]	[Initials]	[Date]	

Initial-Sub Eval-Inst 05-01.doc March 2006

Page 5

Field Training Outline
Supports OQ tasks: 05-01, 05-02, 08-01, 08-03

FTO Vol 1 TB 2.5

#### Sub Task Vol 1 TB 2.5.2 Locating Transmission Pipelines Using a Mechanical Probe

Note: This sub-task supports both the **Operator Mechanic** and the **Transmission Mechanic** job duties.

Objective: The trainee will be able to correctly:

- use a mechanical probe to find exact pipeline location and depth for excavating a pipeline.
- stake and mark the pipeline's location and depth.

Per UO Standard S4412 and Gas Bulletin 151, demonstrate and/or explain:

- how to check a mechanical probe prior to use (ensuring pipe bushing tightness, tip not too sharp so it does not cut into pipe wrap, etc.).
- the other precautions needed when using a mechanical probe (caution re other underground lines such as fiber optics, not to probe near electrical lines, etc.)
- how to use a mechanical probe to find an underground pipeline.
- how hard to hit the mechanical probe (trying not to compress the pipe wrap).
- how to properly stake and mark a pipeline location.

Hours Recommended	OJT Hours Received*	Trainee	Reviewer	Date
12 Hours		[Initials]	[Initials]	[Date]

#### Sub Task Vol 1 TB 2.5.3 Third Party Mark and Locate

Note: This sub-task supports both the **Operator Mechanic** and the **Transmission Mechanic** job duties.

**Objective**: The trainee will be able to correctly state the actions required when dealing with a third party mark and locate.

#### Demonstrate and/or explain:

- the interactions required when dealing with a third party mark and locate (understanding the USA report, etc. before contact).
- when it is required to go to a job site and stand by (e.g., when digging is taking place).
- the Right of Way and the required safety space when digging operations are going on.
- proper pipe location markings and the proper color.

Hours Recommended	O IT Hours Passined*		Reviewer	Date
4 Hours		[Initials]	[Initials]	[Date]

Initial-Sub Eval-Inst 05-01.doc March 2006

Page 6

Marking and Locating Pipelines

Supports OQ tasks: 05-01, 05-02, 08-01, 08-03

FTO Vol 1 TB 2.5

#### Sub Task Vol 1 TB 2.5.4 USA Requests

Note: This sub-task supports both the Operator Mechanic and the Transmission Mechanic job duties

**Objective**: The trainee will be able to correctly respond to and complete an Underground Service Alert (USA) report.

#### Demonstrate and/or explain:

Field Training Outline

- the basic USA process per UO Standard S4412 so that when required to talk with outside parties, the trainee can properly inform them of the USA rules.
- the actions required when notified of a USA report.
- how to use the USA Software to view, monitor, print, make notes, close out, and create reports on USA requests.
- how to use DGSAVE to:
  - map and print the USA location.
  - determine if there is a conflict with underground facilities.
  - report discrepancies between the map and field conditions.
- the selection of records (GIS and maps) and the use of symbols to interpret the location of underground facilities required by the USA Request.

Hours Recommended OJT Hours Received*		Trainee	Reviewer	Date
2 Hours		[Initials]	[Initials]	[Date]

Initial-Sub Eval-Inst 05-01.doc March 2006 Page 7

Job Performance Measure

JPM Vol 1 TB 2.5

Supports OQ tasks: 05-01, 05-02, 08-01, 08-03

Operator Qualification – Job Performance Measure						
Traine Last	e Name First	Corp ID 4 digits	SSN Last 4 digits	Location Headquarters or District Name		
Lasi	Filst	4 digits	Last 4 digits	Headquarters of 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.

Sub Task Vol 1 TB 2.5.1 Locating	Transmission Pip	pelines	
Note: This sub-task supports both the Op	erator Mechanic and	the <b>Transmission Mechanic</b> j	ob duties.
Andre Michigan A	Evaluation Method P = Perform	Results S = Satisfactory	Evaluator Initials
Task Element	S = Simulate D = Describe	U = Unsatisfactory NA = Not Applicable	Date
Proper selection, setup, and maintenance of pipeline locating	Method	Results	Initials
equipment. Use a pipeline locator to locate underground utilities by the conductive and Inductive methods	□P □S □D	□S □U □NA	Date
<ul> <li>Standard: The trainee can correctly dem</li> <li>how to use a gas map in DGSAVE to</li> <li>the theory of conductive and inductive</li> </ul>	locate pipeline infrastru methods of pipeline lo	ictures.	

- how to select appropriate locating equipment.
- how to inspect the locating equipment (equipment check).
- · how to properly calibrate the locating equipment.
- the proper operation and maintenance of locating equipment.
- the conductive and inductive methods of pipeline locating.
- the responsibilities of marking and locating a pipeline.
- USA processing.
- · the correct markings and paint color to use when identifying pipe locations.

#### **Standard:** The participant can:

- Explain how to utilize a gas map in DGSAVE to locate pipeline infrastructures.
- Explain the theory of conductive and inductive methods of pipeline location.
- Explain the correct selection of locating equipment.
- · Explain the operation and maintenance of locating equipment.
- Demonstrate how to inspect (equipment check) the locating equipment.
- · Demonstrate how to properly calibrate the locating equipment
- Demonstrate the conductive and inductive methods of pipeline locating.
- · Explain the responsibilities of marking and locating a pipeline.
- Explain USA processing.
- Explain the correct markings and paint color used when identifying pipe locations.

Initial-Sub Eval-Inst 05-01.doc March 2006 Page 8

Marking and Locating Pipelines

Job Performance Measure
Supports OQ tasks: 05-01, 05-02, 08-01, 08-03

**JPM Vol 1 TB 2.5** 

Operator Qualification	– Job Performance			
Trainee Last	Name 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 1 TB 2.5.2 Locating Transmission Pipelines using a mechanical probe					
Note: This sub-task supports both the <b>Operator Mechanic</b> and the <b>Transmission</b> Mechanic job duties.					
Task Element	Evaluation Method P = Perform	Results S = Satisfactory U =	Evaluator Initials		
	S = Simulate D = Describe	Unsatisfactory NA = Not Applicable	Date		
<b>Objective:</b> Use a mechanical probe to find pipeline location and depth when	Method	Results	Initials		
excavating pipeline. Including stake and mark actual location/depth.	□P □S □D	□S □U □ NA	Date		
Standard: The participant can:					
• Demonstrate checking condition of a mechanical probe prior to use (ensuring pipe bushing tightness, tip not too sharp so it does not cut into pipe wrap, etc).					
<ul> <li>Explain caution of physical force used with the mechanical probe (trying not to compress the pipe wrap).</li> <li>Demonstrate and explains how to properly gauge the depth, then stake and mark the pipeline location.</li> </ul>					

Explain other precautions (e.g. caution of other underground lines such as fiber

optics and not to probe near electrical lines, etc...).

Initial-Sub Eval-Inst 05-01.doc March 2006 Page 9

Marking and Locating Pipelines

Job Performance Measure
Supports OQ tasks: 05-01, 05-02, 08-01, 08-03

**JPM Vol 1 TB 2.5** 

Operator Qualification – Job Performance Measure				
Trainee		Corp ID	SSN	Location
Last	First	4 digits	Last 4 digits	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 1 TB 2.5.3 Third Party Mark and Locate				
Note: This sub-task supports both the <b>Operator Mechanic</b> and the <b>Transmission</b> Mechanic job duties.				
Objective: Actions required when	Method	Results	Initials	
dealing with a third party mark and locate.	□P □S □D	□S □U □ NA	Date	
<ul> <li>Standard: The participant can:</li> <li>Explain the interactions required when dealing with a third party mark and locate.</li> <li>Demonstrate understanding of correct color and markings used to identify pipe locations.</li> <li>Explain when to stand by the job site (e.g. when digging is taking place).</li> <li>Explain right of way and needed safety space required around pipes.</li> </ul>				

Initial-Sub Eval-Inst 05-01.doc March 2006 Page 10

Marking and Locating Pipelines

Job Performance Measure

**JPM Vol 1 TB 2.5** 

Supports OQ tasks: 05-01, 05-02, 08-01, 08-03

Operator Qualification – Job Performance Measure				
Trainee		Corp ID	SSN	Location
Last	First	4 digits	Last 4 digits	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 1 TB 2.5.4 <b>USA Requests</b>				
Note: This sub-task supports both the <b>Operator Mechanic</b> and the <b>Transmission Mechanic</b> job duties.				
<b>Objective:</b> Respond and complete an Underground Service Alert (USA)	Method	Results	Initials	
report.	□P □S □D	│ □S □U □NA	Date	
<ul> <li>Standard: The participant can:</li> <li>Explain USA processing per Standard UO S4412.</li> <li>Demonstrate properly filling out and processing a USA report.</li> <li>Use the USA Software to view, monitor, print, make notes, close out, and create reports on USA requests.</li> <li>Use DGSAVE to map and print the USA location and to determine whether there is a conflict with underground facilities.</li> <li>Explain how to use DGSAVE to report discrepancies between the map and field conditions.</li> <li>Explain the selection of records (GIS and maps) and the use of symbols to interpret the location of underground facilities required by the USA Request.</li> </ul>				

Initial-Sub Eval-Inst 05-01.doc March 2006 Page 11

Marking and Locating Pipelines

Link to UO Standard S4412 Protection of Underground Resources:

http://wwwedm3/cgi-

bin/doccontent.dll?LibraryName=dmspge01^dmsedm01&SystemType=2&LogonId=8a6 8eab4548aa59f9564aac3cada9c60&DocId=972410033&Page=1

Job Aid Vol 2 TB 2.9a Patrolling Pipelines and Mains

Job Aid Vol 2 TB 2.9b Pipe Locating: Conductive and Inductive Methods

Job Aid Vol 2 TB 2.9c Pipeline Locator 9890 XT

Link to Job Aids: <a href="http://wwwint02/gsm/training/job\_aids.htm">http://wwwint02/gsm/training/job\_aids.htm</a>

Initial-Sub Eval-Inst 05-01.doc March 2006 Page 12