RATON GAS TRANSMISSION COMPANY

OPERATOR QUALIFICATION PLAN

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Part One: Purpose and Scope

1.1 Scope

This Operator Qualification Plan (OQ Plan) prescribes requirements for evaluating the qualifications of all persons performing certain operating and maintenance tasks listed in this OQ Plan on Raton Gas Transmission Company's, (RGT), natural gas pipeline system. It is adopted to comply with minimum pipeline safety regulations at 49 CFR Part 192, Subpart N.

No company employee, employee of a contractor or any other person may perform any covered task identified in this Plan unless the requirements of this Plan have been satisfied. It is our responsibility to 1) ensure that all our employees and employees of our contractors are qualified in accordance with this Plan and 2) to maintain adequate records to document these qualifications.

In addition to qualifications for covered tasks, this Plan may include qualification, training and/or testing that is not required or regulated under 49 CFR 192 Subpart N. These qualification requirements are included here for the convenience of RGT in order to consolidate all qualification requirements into one plan. **Pursuant to determinations made during the rulemaking process, these non-regulated training and evaluation procedures, voluntarily added to this Plan by RGT, are NOT subject to review or enforcement by federal or state regulators under 49 CFR 192 Subpart N.**[1]

1.2 Purpose

The purpose of this Plan is to ensure safe and efficient natural gas service by:

- Establishing objective criteria of required qualifications for all persons performing safety-sensitive operations and maintenance tasks on RGT's gas piping system,
- Ensuring through evaluation that each person performing safety sensitive tasks on RGT's pipeline system is able to perform these tasks and recognize and respond appropriately to abnormal operating conditions they may encounter, and
- Maintaining necessary records to administer this Plan.

1.3 Definitions

Unless another meaning is specifically indicated, when used in this plan:

1. *Abnormal operating condition* means a condition identified by RGT that may indicate a malfunction of a component or deviation from normal operations that may result in a condition exceeding design limits or hazard(s) to persons, property, or the environment.

[1] "The operator may expand any of the seven required elements and add additional elements to their program but will only be held accountable to meet the requirements of this Subpart." 63 *Fed Reg* 57275

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2. *Covered task* means any task that:
   - Is performed on a pipeline facility;
   - Is an operations or maintenance task;
   - Is performed as a requirement of 49 CFR Part 192; and
   - Could affect the operation or integrity of the pipeline.
3. *Evaluation* means a process, established and documented by RGT, to determine an individual's ability to perform a covered task by any of the following: written examination; oral examination; work performance history review; observation during (a) performance on the job, (b) on the job training, (c) simulations; or other forms of assessment.
4. *Operator* means RGT.
5. *Person* means any individual, firm, joint venture, partnership, corporation, association, State, municipality, cooperative association, or joint stock association, and including any trustee, receiver, assignee, or personal representative thereof.
6. *Pipe* means any pipe or tubing used in the transportation of gas, including pipe-type holders.
7. *Pipeline* means all parts of those physical facilities through which gas moves in transportation, including pipe, valves, and other appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies.
8. *Pipeline facility* means new and existing pipelines, rights-of-way, and any equipment, facility, or building used in the transportation of gas or in the treatment of gas during the course of transportation.
9. *Qualified* means that an individual has been evaluated and can (a) perform assigned covered tasks and (b) recognize and react to abnormal operating conditions.

Part Two: Employee Responsibilities

2.1 Plan Administration

The RGT President & GM is the designated Plan Administrator and is responsible for the administration of this Plan:

Plan administration includes: maintenance of the complete OQ Plan, including material incorporated by reference; distribution of up-to-date copies of the Plan to appropriate personnel; making the Plan available for inspection by authorized agents of regulatory agencies; ensuring that all milestones, periodic evaluation intervals, etc. are conducted as specified in this Plan; notifying all company employees in advance of the date that an employee's current qualification will expire; scheduling evaluations; recording the results of evaluations; maintaining a current list of qualified employees; monitoring federal and state regulations that affect this Plan; and such other activities as are necessary to carry out the scope and purpose of this Plan.

The RGT Supervisor can be delegated by the Plan Administrator to perform all functions of the Plan Administration as defined above. In addition the Supervisor must also maintain current knowledge of corrosion control procedures and be trained on a periodic basis by a certified corrosion control professional. The Supervisor in concert with the Plan Administrator is solely responsible for the training and qualification of all personnel.

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2.2 General Employee Responsibilities

All employees are expected to be aware that covered tasks (listed in Attachment A to this Plan) may only be performed by persons qualified under this Plan. Any employee observing any of these covered tasks being performed on RGT's pipeline facilities by a non-qualified person must immediately report this condition to the Plan Administrator, in addition to any specific responsibilities listed below.

EXCEPTION:

A non-qualified person(s) may perform a covered task if that person(s) is directed and observed by an individual that is qualified under this Plan to perform that covered task. For the purpose of this Plan, directed and observed means that the qualified person is at the site where the covered task is being performed by the person(s) not qualified for this task and is closely watching each step of the work to ensure it is performed correctly. It is not sufficient that the qualified person be in the general vicinity, but not observing each step of the task. One qualified person may direct and observe more than one non-qualified person at one time performing one or more covered tasks, however the number of non-qualified persons watched by one qualified person should be kept to a minimum consistent with the ability of the qualified person to observe and direct the performance of the covered task(s). **All RGT employees directing and observing a non-qualified person to perform a covered task shall be able to effectively communicate direction of task activities and reactions to AOC's to non-qualified individuals that speak and comprehend Spanish as well as English.**

2.3 Specific Responsibilities

2.3.1 The Plan Administrator is responsible to ensure that all contracts for the performance of operations and maintenance tasks on company facilities incorporate the list of covered tasks in Attachment A and stipulate that no contractor employee may perform any of these tasks unless the contractor has first provided the company with evidence that these employees are qualified in accordance with the requirements of this Plan. See Part Seven of this Plan for more details on contractor qualification.

2.3.2 Construction Inspectors are responsible to ensure that on all the job sites for which they are responsible that RGT and contractor personnel are aware of those tasks in Attachment A for which qualification is required and that non-qualified persons may not perform these tasks unless directed and observed by a qualified person. Work must be immediately stopped on any job where it is discovered that non-qualified workers are performing covered tasks listed in Attachment A unless that person is directed and observed by a person who is qualified for that task. Routine inspection procedures should include review the qualifications of personnel.

2.3.3 Supervisors are responsible to ensure that their subordinates are aware of the current list of covered tasks in Attachment A and that they are not to perform these tasks unless they possess current qualifications from the company to perform these tasks or are directed and observed by a qualified person. Supervisors should obtain an up-to-date list of the qualifications of their subordinates from the plan administrator.

Supervisors are to immediately report to the Plan Administrator if they have reason to believe that any of their subordinates are no longer qualified. Reasons to believe a person is no longer qualified may include observations of errors made by that employee while performing a task or other reasons.

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Part Three: Identification of Covered Tasks

3.1 Responsibility

The Plan Administrator is responsible for maintaining an up-to-date listing of covered tasks and must approve modifications or additions to the covered task list. The rationale for any changes to the covered task list shall be recorded by the Plan Administrator.

3.2 Identifying covered tasks

Covered tasks are those tasks that:

- Are performed on a pipeline facility;
- Are an operations or maintenance task;
- Are performed as a requirement of 49 CFR Part 192; and
- Could affect the operation or integrity of the pipeline.

Tasks that have been evaluated against the four-part tests are listed in Attachment A to this Plan. The Plan Administrator shall apply the four-part test to determine whether any new activities not addressed in Attachment A are or are not covered tasks when performed on RGT facilities.

3.3 Records

The current list of covered tasks is shown as Attachment A to this Plan.

Part Four: Evaluation method

4.1 Responsibility

Initial and subsequent evaluation methods for qualification to perform covered tasks listed in Attachment A are Knowledge based classroom presentations with written examinations (Attachment D), and Skills and Abilities evaluations listed in Attachment B. Records of completed evaluations are the responsibility of Plan Administrator.

4.2 Specified evaluation methods

The required evaluation(s) for each covered task shall be maintained by the Plan Administrator and are identified as the Knowledge based classroom presentation (with written examinations) listed in Attachment D and Skills and Abilities evaluations listed in Attachment B.

4.3 Re-evaluation intervals

The time period at which each person's qualifications to perform a covered task shall be re-evaluated are specified for each covered task. RGT has chosen to establish a re-evaluation interval for each covered task using associated evaluations. This allows RGT to re-evaluate complex, infrequently-performed, safety-critical knowledge and skill elements of a task more frequently than the simple, frequently-performed aspects of the same task.

In determining the appropriate re-evaluation interval, the Plan Administrator shall consider:

- The complexity of the knowledge and/or skills being evaluated (i.e. the "learning objective"); greater complexity requires more frequent re-evaluation,

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- The frequency with which the learning objective will be applied by the person being qualified during the course of his/her work for RGT; greater frequency requires less frequent re-evaluation, and
- The safety-sensitivity of the learning objective, i.e. what is the "worst case scenario" if this knowledge or skill is improperly applied during operation and maintenance of the pipeline system; greater safety sensitivity requires more frequent re-evaluation.

Re-evaluation intervals for evaluations are recorded in Attachment E. These intervals will not exceed a 3 year period, however, many of the listed intervals currently require a maximum 2 year re-evaluation interval.

4.4 Work Performance History Review

Work performance history review may be used to evaluate the qualifications of persons who have regularly performed one or more covered tasks for RGT prior to August 27, 1999. Work performance history may be used as a supplement for overall evaluation. Work performance history review will not be used as the sole evaluation method after October 28, 2002.

Part Five: Identification of persons performing covered tasks

5.1 Responsibility

The Plan Administrator is responsible for identifying those employees who perform covered tasks during the course of their work on RGT's system and shall schedule each employee for evaluation of his/her qualifications to perform each covered task. Evaluation shall be done using one or more of the evaluation methods identified in Part Four of this Plan. The Plan Administrator shall maintain a list of persons and the covered tasks they are qualified to perform. **The Plan Administrator shall ensure that each RGT employee is issued an OQ Qualification card and that the subject card is carried on each RGT job site.**

5.2 Recordkeeping

The Plan Administrator shall maintain the following minimum records

- Identification of qualified individual(s)
- Identification of the covered task(s) each individual is qualified to perform;
- Date(s) of current qualification; and
- Qualification method(s).

The Plan Administrator shall also maintain records of all actions performed as requirements of this OQ Plan:

- Processes for identification of covered tasks,
- Evaluation records
- Investigations of incidents
- Re-evaluation on reasonable suspicion
- Communication of changes

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5.3 Record Retention

All records required by this Plan must be retained for 5 years after the record is no longer required to document the qualification of any person to perform a covered task. An evaluation record may be discarded five years after:

- A person ceases to perform a covered task on RGT's system, or
- A person has successfully retaken the evaluation

Part Six: Re-evaluation of a person's qualifications

6.1 Responsibility

The Plan Administrator is responsible for tracking the expiration dates of the qualifications for each company employee and notifying the employee before any required evaluation will expire. The Plan Administrator is responsible for scheduling re-evaluation activities prior to the expiration date of qualifications for each employee.

6.1.1 Re-evaluation upon reason to believe that the individual is no longer qualified

Each employee is responsible for notifying the Plan Administrator whenever he/she has reason to believe that any person working on the RGT system is no longer qualified to perform a covered task. Reasons may include, but are not limited to, observation that an employee or employee of a contractor is improperly performing a task, observable loss of motor skills or other reasons that indicate a person may no longer be able to perform a task. The Plan Administrator shall investigate and require re-evaluation in the covered task. Form OQ 1 shall be completed for each task and person for which work performance has been documented as poor or the subject employee has been found to be involved in a reportable incident per 49 CFR §191.3. The results of the investigation shall be recorded and maintained for 5 years.

6.1.2 Re-evaluation of persons implicated in a reportable incident

Investigation of reportable incidents[2] shall include assessment of whether any person's performance of a covered task may have caused or contributed to the severity of the incident. If the Plan Administrator determines that an RGT employee's or contractor employee's performance of a covered task contributed to a reportable incident, qualifications related to the incident shall be re-evaluated. The results of the investigation shall be recorded suing Form OQ 1 and maintained for 5 years.

6.1.3 Communication of changes in procedures, equipment, regulations, etc.

The Plan Administrator shall monitor changes in regulations, procedures, technology, new equipment, etc. that may affect the performance of a covered task and shall determine if these changes are so substantial as to require re-evaluation of the qualifications of each person qualified to perform each covered task affected by the change. The Plan Administrator shall determine whether the evaluation method(s) must be changed as a result of the changes. Evaluation methods should be modified if the new equipment, technology or procedure requires different knowledge, skills and abilities (KSA's) than those measured by the current evaluation method(s). The results of this process shall be recorded.

[2] Reportable incidents are any accident involving a release of gas that results in a death, injury requiring hospitalization or property loss exceeding $50,000

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6.2 Re-evaluation

As soon as possible after determining that re-evaluation is necessary under section 6.1 of this Plan, the Plan Administrator shall schedule a re-evaluation of qualifications. Until such re-evaluation is successfully completed, the affected person shall be considered non-qualified for any task that requires successful completion of the evaluation(s) in question and may not perform the covered task unless directed and observed by a person who is qualified to perform the covered task. The person may, however, continue to be qualified for other covered tasks that do not require the evaluation(s) in question. Re-evaluation will include one-the-job and simulation training prior to re-evaluation using the evaluations listed in Attachment B. All re-evaluation records shall be documented and maintained by the Plan Administrator.

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Last Name:	First Name:	ID #:
Task:		

Form OQ-1 – Re-Qualification for cause or poor Task Performance

This form is to be used to re-qualify persons to perform covered task based on involvement related to a reportable incident per 49 CFR §191.3, or demonstrated poor work performance.

Results of records review

	Yes	No	N/A
Review performance reviews for past 5 years. Do these include statements about how this person performs this task? If yes, describe on a separate page and attach to this form. Attach copies if possible.			
Implicated in accidents/poor performance. Has this person been cited for poor performance of this task or ever been implicated in an accident or near-miss caused by performance of this task? If yes, describe on a separate page and attach to this form. Attach copies if possible.			
Evidence of prior training or certification. Are there records that this person attended and successfully completed training programs directly related to this task? Attended seminars? Does the person possess certification in relevant skills (e.g. NACE certification)? Attach copies of relevant records			

Reviewer(s):

Date: ____/____/____

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Part Seven: Qualification of contractor employees to perform covered tasks

7.1 Responsibility

RGT is responsible for assuring that contractor employees and employees of their subcontractors are qualified if they are to perform covered tasks on RGT's piping system.

7.2 Evaluation of contractor employees

Contractors and other non-RGT employees who perform covered tasks on RGT facilities must be qualified if they perform any of the covered tasks listed in Attachment A.

Qualification may be accomplished by any one of the following:

RGT may evaluate the contractor employees using the evaluations required of RGT employees performing the same task(s) listed in Attachment B, or

Contractors and other non-RGT employees who perform covered tasks on RGT facilities included in Attachment A may provide evidence that all contract personnel have completed evaluations equivalent to those listed in Attachment B for the covered tasks they will perform, RGT has reviewed and adopted the evaluation methods used by contractors as approved methods for qualifying contractors or as an accepted equivalent alternative method to that found in Attachment B, or RGT has reviewed and adopted certain 3rd party certification/qualification programs as accepted evaluation methods for certain covered tasks. Contractor personnel possessing current qualifications from these 3rd parties may be accepted by RGT as evidence of qualification.

7.3 Notification of substandard performance of a covered task by a contractor

The Plan Administrator should be notified immediately if any RGT employee has reason to suspect that a contractor employee is not qualified to perform a covered task. Such reason could include, but is not limited to, observation of significant failure to follow procedures. In cases where a 3rd party has qualified the contractor employee, the Plan Administrator should also notify the 3rd party qualification agency. RGT may decide to either discontinue allowing the subject contractor employee from performing covered tasks on RGT facilities, or re-qualify the contractor employee according to the provisions set out in section 6.2.

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Part Eight: Operations and Maintenance Employees

8.1 Identification

Employee Name	Job Title	Hire Date	Re-evaluation Year
Larry J. Martinez	Gas Supervisor	08/01/1965	2008
Phil J. Martinez	Master Gas Technician	07/16/1986	2008
Ron L. Pacheco	Master Gas Technician	03/16/1985	2008
Travis Valdez	Helper	08/09/2001	2008
Rudy Lopez	Helper	08/01/2007	2008

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Part Nine: Incorporation by reference of operator qualification plans of companies with which RGT has mutual assistance plans.

In the event of major natural disasters or other emergencies, RGT may utilize employees of other gas companies to restore natural gas service to RGT customers. These individuals may be required to perform certain covered tasks on RGT's facilities. In order to allow this mutual assistance to occur without violating 49 CFR 192 Subpart N, RGT has incorporated by reference in Attachment C to this Plan the qualification requirements of companies whose employees RGT might utilize for certain covered tasks.

9.1 Responsibility

The Plan Administrator is responsible to identify covered tasks in Attachment A of this Plan that RGT might utilize borrowed employees to perform under mutual assistance arrangements. The Plan Administrator shall also identify companies with whom RGT would be likely to rely upon for emergency assistance and request a copy of the qualification requirements these companies have established for these covered tasks. These qualification requirements, found in Attachment C of this Plan have been evaluated and are incorporated by reference into this Plan as acceptable alternative methods of qualification for the covered tasks listed.

In the event RGT is offered and accepts assistance from a company not listed in Attachment C, the Plan Administrator shall obtain and incorporate the qualification requirements of that company into Attachment C as soon as possible.

Part Ten: Plan review for Assessment of Improvement

RGT will perform an annual review of the Operator Qualification Plan including covered tasks listed in Attachment A, skills and abilities evaluations listed in Attachment B, knowledge based classroom presentations and associated written examinations listed in Attachment D, as well as re-evaluation intervals listed in Attachment E. This review will include an assessment for improvement of any and all segments of the OQ Plan. The Plan Administrator will maintain a copy of the results of this review including all decisions to delete, add, and revise the subject plan segments as well as the particular rationale for such modification(s).). **The Plan Administrator will notify OPS and the NMPRC of any significant changes to the RGT written OQ Plan at the earliest opportunity after such change occurs.**

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Attachment A: Covered Tasks and Identified Abnormal Operating Conditions (AOC's)

NOTE: ABNORMAL OPERATING CONDITIONS, (AOC's),THAT ARE UNDERLINED AND FOLLOWED BY AN ASTERISK, (*), ARE CONSIDERED TO BE TASK SPECIFIC. RECOGNITION OF AND REACTION TO, THESE AOC's ARE ALSO EVALUATION ELEMENTS LISTED ON THE SPECIFIC COVERED TASK EVALUATIONS IN ATTACHMENT B.

CORROSION CONTROL - COVERED TASKS

CT. 1. §192.467, 469 *Inspecting casings*

Identified AOC list:

Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Stray current on pipeline *
Odor complaint
Severe corrosion on a pipeline
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction
Unacceptable pipe-to-soil readings *

CT. 2. §192.467, 469 Clearing a shorted casing

Identified AOC list:

Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Odor complaint
Severe corrosion on a pipeline *
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction
Unacceptable pipe-to-soil readings *

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CT. 3 §192.467 Tracing/mitigating interference

Identified AOC list:

Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Odor complaint
Severe corrosion on a pipeline *
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction
Unacceptable pipe-to-soil readings *

CT. 6. §192.465 Measuring pipe-to-soil potential (B,C,D,O)

Identified AOC list:

Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Stray current on pipeline *
Odor complaint
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction
Unacceptable pipe-to-soil readings *

CT. 7. §192.481 Inspecting for atmospheric corrosion (B,C,D,O)

Identified AOC list:

Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Odor complaint
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction

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CT. 8. §192.459 Inspecting the condition of exposed pipe or pipe coating (B,C,D,O)

Identified AOC list:

Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Odor complaint
Damaged pipe *
Severe corrosion on a pipeline *
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction
Unacceptable pipe-to-soil readings *

CT. 9. §192.455, 457 Installing/replacing an anode on an existing line (B,C,D,O)

Identified AOC list:

Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Odor complaint
Damaged pipe *
Severe corrosion on a pipeline *
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction
Unacceptable pipe-to-soil readings *

CT. 10. §192.477 Visually inspecting for internal corrosion (B,C,D,O)

Identified AOC list:

Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Odor complaint
Water or other liquids in the pipeline *
Severe corrosion on a pipeline *
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction
Unacceptable pipe-to-soil readings *

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CT. 11. §192.469, 471 Install/replace a corrosion test station on a pipeline (B,C,D,O)

Identified AOC list:

Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Odor complaint
Severe corrosion on a pipeline *
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction
Unacceptable pipe-to-soil readings *

CT. 12. §192.487 Repair coating on existing steel mains (B,C,D,O,Q,S,U,V)

Identified AOC list:

Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Odor complaint
Damaged pipe *
Severe corrosion on a pipeline *
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction
Unacceptable pipe-to-soil readings *

CUSTOMER SERVICE - COVERED TASKS

CT. 13. §192.615 Investigating leak/odor complaints on company piping (B,C,D,E,O)

Identified AOC list:

Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Inoperation/failure of any pipeline component (valve, regulator, relief valve, alarm, sensor, etc.)
Under pressure condition (including no gas)
Unplanned shutoff of service to one or more customers
Odor complaint
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction

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DAMAGE PREVENTION - COVERED TASKS

CT. 14. §192.614 Locating and marking lines (B,C,D,O)

Identified AOC list:

Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Odor complaint
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction

CT. 15. §192.614 Inspection of 3rd party excavations for damage prevention (B,C,D,E,O)

Identified AOC list:

Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Inoperation/failure of any pipeline component (valve, regulator, relief valve, alarm, sensor, etc.)
Odor complaint
Damaged pipe *
Severe corrosion on a pipeline *
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction
Unacceptable pipe-to-soil readings *

OPERATIONS/ADMINISTRATION – COVERED TASKS

CT. 16. §192.805 Directing and observing a non-qualified person to perform a covered task (B,C,D,O)

Identified AOC list:

This task is listed for reference purposes only. Knowledge, skills and abilities would be the same as for the task being observed and directed.

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GAS CONTROL - COVERED TASKS

CT. 17. §192.619 Controlling and monitoring gas pressures and flows (B,C,D,E,O,M)

Identified AOC list:

Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Inoperation/failure of any pipeline component (valve, regulator, relief valve, alarm, sensor, etc.)
Under odorization
Under pressure condition (including no gas)
Unplanned shutoff of service to one or more customers
Gas blowing from a pressure relief valve *
Odor complaint
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction

LEAK REPAIR – COVERED TASKS

CT. 18. §192.605 Repair transmission line leaks (A,B,C,D,E,O)

Identified AOC list:

Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Inoperation/failure of any pipeline component (valve, regulator, relief valve, alarm, sensor, etc.)
Unplanned shutoff of service to one or more customers
Odor complaint
Damaged pipe *
Severe corrosion on a pipeline *
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction
Unacceptable pipe-to-soil readings *

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MAINTENANCE – COVERED TASKS

CT. 19. §192.277 Mechanically joining pipe other than plastic during maintenance (A,B,C,D,E,O)

Identified AOC list:

Low oxygen atmosphere
Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Inoperation/failure of any pipeline component (valve, regulator, relief valve, alarm, sensor, etc.)
Odor complaint
Damaged pipe *
Severe corrosion on a pipeline *
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction
Unacceptable pipe-to-soil readings *

CT. 20. §192.309 Repair a non-leaking damaged pipe (A, B,C,D,E,O)

Identified AOC list:

Low oxygen atmosphere
Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Inoperation/failure of any pipeline component (valve, regulator, relief valve, alarm, sensor, etc.)
Odor complaint
Damaged pipe *
Severe corrosion on a pipeline *
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction
Unacceptable pipe-to-soil readings *

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CT. 21. §192.325, 327 Backfilling a trench after maintenance (B,C,D,O)

Identified AOC list:

Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Odor complaint
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction

CT. 22. §192.325, 327 Excavating a pipeline for maintenance (B,C,D,O)

Identified AOC list:

Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Odor complaint
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction

CT. 23. §192.629 Purging air from a pipeline (A, B,C,D,E,O)

Identified AOC list:

Low oxygen atmosphere
Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Inoperation/failure of any pipeline component (valve, regulator, relief valve, alarm, sensor, etc.)
Water or other liquids in the pipeline *
Odor complaint
Severe corrosion on a pipeline *
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction

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CT. 24. §192.629 Purging gas from a pipeline (A, B,C,D,E,O)

Identified AOC list:

Low oxygen atmosphere
Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Inoperation/failure of any pipeline component (valve, regulator, relief valve, alarm, sensor, etc.)
Water or other liquids in the pipeline *
Odor complaint
Severe corrosion on a pipeline *
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction

CT. 25. §192.509, 511, 513 Performing a pressure test on existing pipe (A, B,C,D,E,O)

Identified AOC list:

Low oxygen atmosphere
Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Inoperation/failure of any pipeline component (valve, regulator, relief valve, alarm, sensor, etc.)
Odor complaint
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction

CT. 26. §192.509, 511, 513 Pressure testing piping after repairs (A, B,C,D,E,O)

Identified AOC list:

Low oxygen atmosphere
Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Inoperation/failure of any pipeline component (valve, regulator, relief valve, alarm, sensor, etc.)
Odor complaint
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction

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CT. 27. §192.619, 621 Starting, Stopping gas flow (B,C,D,E,O)

Identified AOC list:

Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Inoperation/failure of any pipeline component (valve, regulator, relief valve, alarm, sensor, etc.)
Unplanned shutoff of service to one or more customers
Odor complaint
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction

MEASUREMENT AND REGULATION – COVERED TASKS

CT. 28. §192.739 Inspect and test pressure regulator stations (A, B,C,D,E,O,M)

Identified AOC list:

Low oxygen atmosphere
Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Inoperation/failure of any pipeline component (valve, regulator, relief valve, alarm, sensor, etc.)
Odor complaint
Over pressure condition (MAOP exceeded)
Under pressure condition (including no gas)
Unplanned shutoff of service to one or more customers
Gas blowing from a pressure relief device *
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction *

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CT. 29. §192.743 Testing overpressure protection devices (A, B,C,D,E,O,M)

Identified AOC list:

Low oxygen atmosphere
Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Inoperation/failure of any pipeline component (valve, regulator, relief valve, alarm, sensor, etc.)
Odor complaint
Over pressure condition (MAOP exceeded)
Under pressure condition (including no gas)
Gas blowing from a pressure relief device *
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction *

CT. 30. §192.741 Field interpretation of pressure recording devices (A, B,C,D,E,O,M)

Identified AOC list:

Low oxygen atmosphere
Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Inoperation/failure of any pipeline component (valve, regulator, relief valve, alarm, sensor, etc.)
Over pressure condition (MAOP exceeded)
Under pressure condition (including no gas)
Odor complaint
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction

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CT. 31. §192.741 Change/repair pressure recording devices/gauges at pressure regulating/metering stations (A, B,C,D,E,O,M)

Identified AOC list:

Low oxygen atmosphere
Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Inoperation/failure of any pipeline component (valve, regulator, relief valve, alarm, sensor, etc.)
Over pressure condition (MAOP exceeded)
Under pressure condition (including no gas)
Odor complaint
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction

OPERATIONS – COVERED TASKS

CT. 34. §192.741 Abandonment or deactivation of facilities (A, B,C,D,O)

Identified AOC list:

Low oxygen atmosphere
Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Unplanned shutoff of service to one or more customers
Odor complaint
Water or other liquids in the pipeline *
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction

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CT. 35. §192.627 Tapping and stopping pipelines under pressure (A, B,C,D,E,O)

Identified AOC list:

Low oxygen atmosphere
Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Inoperation/failure of any pipeline component (valve, regulator, relief valve, alarm, sensor, etc.)
Odor complaint
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction

NOTE: THIS COVERED TASK IS TYPICALLY PERFORMED BY CONTRACT PERSONNEL THAT MUST BE QUALIFIED BY THE MANUFACTURER OF THE TAPPING/STOPPING MACHINE(S) USED. THE OPERATOR MUST ENSURE THAT A QUALIFIED OPERATOR EMPLOYEE IS ON SITE TO RECOGNIZE AND REACT TO ALL AOC'S LISTED. OPERATORS THAT POSESS A TAPPING/STOPPING MACHINE(S) MUST ALSO BE QUALIFIED BY THE MANUFACTURER OF THE TAPPING/STOPPING MACHINE(S) USED.

PATROLLING AND INSPECTION - COVERED TASKS

CT. 36. §192.723 Conducting gas leakage surveys (B,C,D,E,O)

Identified AOC list:

Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Inoperation/failure of any pipeline component (valve, regulator, relief valve, alarm, sensor, etc.)
Odor complaint
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction

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CT. 37. §192.721 Facility patrolling (B,C,D,E,O,M)

Identified AOC list:

Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Inoperation/failure of any pipeline component (valve, regulator, relief valve, alarm, sensor, etc.)
Gas blowing from a pressure relief valve
Odor complaint
Damaged pipe *
Severe corrosion on a pipeline *
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction

EMERGENCY VALVE - COVERED TASKS

CT. 38 §192.747 Inspect, repair and maintain emergency valves (A, B,C,D,E,O)

Identified AOC list:

Low oxygen atmosphere
Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Inoperation/failure of any pipeline component (valve, regulator, relief valve, alarm, sensor, etc.)
Unplanned shutoff of service to one or more customers
Odor complaint
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction

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WELDING – COVERED TASKS

CT. 42. Subpart E Welding on a pipeline for maintenance (A, B,C,D,O)

Identified AOC list:

Low oxygen atmosphere
Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Burn-through/penetration during welding *
Odor complaint
Damaged pipe *
Severe corrosion on a pipeline *
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction

CT. 43 §192.243 Non-destructive testing of production welds (A, B,C,D,O)

Identified AOC list:

Low oxygen atmosphere
Flammable gas atmosphere
Blowing/escaping gas/grade one leak
Fire on a pipeline
Odor complaint
Unintended movement or abnormal loading of a pipeline
Material defect or physical damage that impairs facility serviceability
Conditions requiring shutdown or MAOP reduction

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NOTES:

1. Covered tasks designated with "**A**" are assumed to involve inspection or work in underground vaults or trenches.

2. Covered tasks designated with "**M**" involve complete survey the entire pipeline and should include recognition of gas blowing from relief valves on service regulators.

3. Covered tasks designated with "**B,C,D & O**" include the following AOC's and are assumed basic requirements for all field maintenance and operating personnel.

   B Flammable gas atmosphere
   C Blowing/escaping gas/grade one leak
   D Fire on a pipeline
   O Odor complaint

4. Many covered tasks are designated with "**E**", *Inoperation/failure of any pipeline component (valve, regulator, relief valve, alarm, sensor, etc.)*, due to its broad scope ("any" pipeline component).

5. The covered task under **OPERATIONS/ADMINISTRATION – COVERED TASKS** includes ALL covered tasks.

6. All covered tasks are by definition "O&M" tasks, therefore all persons performing covered tasks must be able to recognize and react to:

   Severe corrosion on a pipeline
   Unintended movement or abnormal loading of a pipeline
   A leak on a pipeline that constitutes an emergency
   Material defect or physical damage impairs the serviceability of a facility
   Conditions requiring shutdown or MAOP reduction
   Water or other liquids in the pipeline
   Unacceptable pipe-to-soil readings
   Damaged pipe

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Attachment B: Evaluation Methods Incorporated by Reference

The following evaluation methods have been reviewed by RGT and determined to be acceptable for qualification in the tasks indicated:

Tapping and Stopping Pipelines Under Pressure

API 1104 Qualified Welding

The following Direct Observation Field Evaluations have been reviewed and adopted by RGT and determined to be acceptable for qualification of associated tasks: (refer to pages 29-63)

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OQ Ability Evaluation Record

E1.

Last Name:	First Name:	ID #:
Evaluated by:		Date:
Ability to Read gas System Pipeline Drawings and Maps		
Evaluation Location (Circle One): On-the-job Classroom or office		**Page 1 of 1**

This form is to be used to evaluate the listed ability required for one or more covered tasks.

Demonstration of abilities

The evaluator must observe the individual perform the following actions and indicate in the space provided whether each item was performed correctly. Provide comments on the back of this form for all items that are judged to be not acceptable.

	Sat.	Unsat.
Item 1: Locates proper map/drawing for interpretation.	☐	☐
Item 2: Recognizes operating pressure.	☐	☐
Item 3: Recognizes piping nominal diameter and material type.	☐	☐
Item 4: Recognizes valve nominal size and type.	☐	☐
Item 5: Able to use map legend to identify other facilities (e.g. stopple fittings, regulator stations, gate stations, etc.).	☐	☐
Item 6: Recognize facility transition between dissimilar materials (e.g. plastic to metallic).	☐	☐
Item 7: Able to recognize town boundaries and water, street, highway, rail crossings.	☐	☐

Evaluator's Comments (Use back and/or attach additional pages if necessary):

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OQ Ability Evaluation Record

E2.

Last Name:	First Name:	ID #:
Evaluated by:		Date:
Ability to Measure Voltage, Current, and Resistance		
Evaluation Location (Circle One): On-the-job Classroom or office		**Page 1 of 1**

This form is to be used to evaluate the listed ability required for one or more covered tasks.

Demonstration of abilities

The evaluator must observe the individual perform the following actions and indicate in the space provided whether each item was performed correctly. Provide comments on the back of this form for all items that are judged to be not acceptable.

	Sat.	Unsat.
Item 1: Hardware preparation: Select proper test instrument to measure volts, amperes, and ohms. Select proper test lead set to do measurements.	☐	☐
Item 2: Hardware hook-up: Demonstrate the attachment of the test leads to the meter so that readings can be taken. Demonstrate that proper range settings are selected for the readings being taken.	☐	☐
Item 3: Take voltage readings with the meter: Demonstrate that the voltmeter is on the correct range. Demonstrate with test leads that a correct voltage can be obtained. Demonstrate that the correct polarity can be obtained when reading the meter.	☐	☐
Item 4: Take a resistance reading: Demonstrate that the ohm-meter is on the correct range. Demonstrate, by connecting the test leads that an ohms reading can be taken.	☐	☐
Item 5: Take a current reading: Demonstrate that the ammeter in on the correct range. Demonstrate that a current can be measured.	☐	☐

Evaluator's Comments (Use back and/or attach additional pages if necessary):

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OQ Ability Evaluation Record

E3.

Last Name:	First Name:	ID #:
Evaluated by:		Date:
Ability to Trace Interference Currents		
Evaluation Location (Circle One): On-the-job Classroom or office		**Page 1 of 2**

This form is to be used to evaluate the listed ability required for one or more covered tasks.

Demonstration of abilities

The evaluator must observe the individual perform the following actions and indicate in the space provided whether each item was performed correctly. Provide comments on the back of this form for all items that are judged to be not acceptable.

	Sat.	Unsat.
Item 1: Hardware preparation: Selection of proper electrical test equipment inclusive of reference electrodes and test cables. Selection of proper maps of the area to be surveyed.	☐	☐
Item 2: Current interruption: Selection of proper current sources to interrupt. Demonstrate the proper hook-up of the interrupter(s). Demonstrate that the interruption cycles prevent major depolarization of the protected structures being surveyed.	☐	☐
Item 3: Potential measurements at interference points: Locate all test stations affected by interference so that they can be monitored. Demonstrate the ability to place the reference electrode so that interference current can be accurately measured. Demonstrate the ability to obtain readings, noting polarity and shifting or varying values.	☐	☐
Item 4: Record the readings: Utilizing a map of the area, record where the current is being picked up on the structure, and where the current is being discharged from the structure.	☐	☐

Notes: Tracing interference currents may require more elaborate means to resolve. Owners of foreign structures or current sources may need to be involved. Dynamic stray current testing may require recording voltmeters or other specialty equipment. New test stations may need to be installed at drain/pickup points. As some stray currents may be in the magnitude of hundred of amperes, special safety precautions may need to be taken.

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OQ Ability Evaluation Record

Ability to Trace Interference Currents (cont'd.)

Task Specific Abnormal Operating Conditions, (AOC's)

Stray current on a pipeline

How would you recognize stray current on a pipeline? (select one answer)

[ ] Static electricity in the soil.
[ ] Unusually high pipe-to-soil readings
[ ] Unusually low pipe-to-soil readings
[ ] Inability to obtain a pipe-to-soil reading

What should to do if there is stray current on the pipeline? (select one answer)

[ ] Install a new anode
[ ] Trace the stray current source
[ ] Record the pipe-to-soil reading regardless of the level

Unacceptable pipe-to-soil potentials

What is considered an unacceptable pipe-to-soil potential ? (select one answer)

[ ] Greater than -.850 V
[ ] Less than -.850 V
[ ] Inability to obtain a pipe-to-soil potential

How should you react to an unacceptable pipe-to-soil potential ? (select one answer)

[ ] Record the pipe-to-soil reading regardless of the level
[ ] Notify the Superintendent or Manager
[ ] Change batteries in the voltmeter

Evaluator's Comments (Use back and/or attach additional pages if necessary):

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OQ Ability Evaluation Record

E4.

Last Name:	First Name:	ID #:
Evaluated by:		Date:
Ability to Mitigate Interference Currents		
Evaluation Location (Circle One): On-the-job Classroom or office		**Page 1 of 1**

This form is to be used to evaluate the listed ability required for one or more covered tasks.

Demonstration of abilities

The evaluator must observe the individual perform the following actions and indicate in the space provided whether each item was performed correctly. Provide comments on the back of this form for all items that are judged to be not acceptable.

	Sat.	Unsat.
Item 1: Hardware preparation: Selection of proper electrical testing equipment inclusive of reference electrodes. Selection of proper shunts or shunt wire for mitigation bonds. Selection of proper boxes or housings for bond equipment. Selection of proper hand tools to facilitate all installations Selection of interference current map	☐	☐
Item 2: Pre-bond preparation (Optional): Arrange for representatives of foreign structure/current sources to be present before installing bonds.	☐	☐
Item 3: Interference bond set-up and installation: Demonstrate that the proper test lead/structure contacts are identified. Demonstrate that proper bond resistor/resistance wire is installed or wound and connected to the affected structures. Demonstrate that the interference bond has normalized pipe-to-soil potentials on all affected structures. Demonstrate that diodes or reverse current switches are not required to prevent reverse current flow.	☐	☐
Item 4: Record the readings: Record all interference bond information (current magnitude and direction, resistor value in ohms, what the resistor is hooked to, etc.) on company forms with accuracy adhering to company standards.	☐	☐

Notes: Not all interference requires action. Slight variations in pipe-to-soil potentials may be accepted if the affected structures remain adequately protected. Some interference bonds will not transfer the correct power in the proper direction. The use of distributed impressed current anodes or galvanic anodes may be required. Coating/re-coating the structure receiving the stray current may resolve some situations. Always re-test the system after installing bonds. Close interval survey methods are recommended where possible.

Evaluator's Comments (Use back and/or attach additional pages if necessary).

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OQ Ability Evaluation Record

E6.

Last Name:	First Name:	ID #:
Evaluated by:		Date:
Ability to Perform Pipe-to-Soil Readings		
Evaluation Location (Circle One): On-the-job Classroom or office		**Page 1 of 2**

This form is to be used to evaluate the listed ability required for one or more covered tasks.

Demonstration of abilities

The evaluator must observe the individual perform the following actions and indicate in the space provided whether each item was performed correctly. Provide comments on the back of this form for all items that are judged to be not acceptable.

	Sat.	Unsat.
Item 1: Hardware preparation: Select proper meter, test leads, and reference electrode. Select proper paperwork and maps to identify structure to be surveyed.	☐	☐
Item 2: Locate and identify structure: Locate and identify correct test station, and correct test station terminal to read.	☐	☐
Item 3: Set-up instrument: Demonstrate ability to connect test leads and reference electrode to meter in order to obtain correct reading with correct polarity. Demonstrate ability to select proper meter range and make a good electrical connection to test station terminal.	☐	☐
Item 4: Read pipe-to-soil potential: Demonstrate correct contact to electrolyte by reference electrode. Demonstrate that reference electrode is placed to minimize "IR drop" and the effects of interfering voltage gradients. Demonstrate meter reading, after allowing reading to stabilize.	☐	☐
Item 5: Record the reading(s): Record the pipe-to-soil reading on the company forms with accuracy adhering to company standards.	☐	☐

Notes: Since pipe-to-soil reading values that are out of criteria have been identified as an Abnormal Operating Condition (AOC), a firm knowledge of what constitutes a qualified reading is very important. Adhere to company standards, and sound engineering principles when qualifying a reading.

Regularly scheduled calibration of high impedance voltmeters, and proper cleaning and maintenance of reference electrodes is a critical 'first Item' in preparing corrosion control instrumentation. Properly tested and maintained test lead sets will add to the accuracy of pipe-to-soil readings.

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OQ Ability Evaluation Record

Ability to Perform Pipe-to-Soil Readings (cont'd.)

Task Specific Abnormal Operating Conditions (AOC's):

Stray current on a pipeline

How would you recognize stray current on a pipeline? (select one answer)

[ ] Static electricity in the soil.
[ ] Unusually high pipe-to-soil readings
[ ] Unusually low pipe-to-soil readings
[ ] Inability to obtain a pipe-to-soil reading

What should to do if there is stray current on the pipeline? (select one answer)

[ ] Install a new anode
[ ] Trace the stray current source
[ ] Record the pipe-to-soil reading regardless of the level

Unacceptable pipe-to-soil potentials

What is considered an unacceptable pipe-to-soil potential ? (select one answer)

[ ] Greater than -.850 V
[ ] Less than -.850 V
[ ] Inability to obtain a pipe-to-soil potential

How should you react to an unacceptable pipe-to-soil potential ? (select one answer)

[ ] Record the pipe-to-soil reading regardless of the level
[ ] Notify the Superintendent or Manager
[ ] Change batteries in the voltmeter

Evaluator's Comments (Use back and/or attach additional pages if necessary):

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OQ Ability Evaluation Record

E7.

Last Name:	First Name:	ID #:
Evaluated by:		Date:
Ability to Recognize Atmospheric Corrosion		
Evaluation Location (Circle One): On-the-job Classroom or office		**Page 1 of 1**

This form is to be used to evaluate the listed ability required for one or more covered tasks.

Demonstration of abilities

The evaluator must observe the individual perform the following actions and indicate in the space provided whether each item was performed correctly. Provide comments on the back of this form for all items that are judged to be not acceptable.

	Sat.	Unsat.
Item 1: Recognize normal rust (above grade) as surface oxidation	☐	☐
Item 2: Recognize local pitting (above grade) as atmospheric corrosion	☐	☐
Item 3: Recognize general pitting (above grade) as atmospheric corrosion	☐	☐
Item 4: Record all atmospheric corrosion patrolling efforts	☐	☐
Item 5: Report actual or potential atmospheric corrosion to company officials	☐	☐

Evaluator's Comments (Use back and/or attach additional pages if necessary):

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OQ Ability Evaluation Record

E8.

Last Name:	First Name:	ID #:
Evaluated by:		Date:
Ability to Attach Wire to Pipe by Thermoweld Procedure		
Evaluation Location (Circle One): On-the-job Classroom or office		**Page 1 of 1**

This form is to be used to evaluate the listed ability required for one or more covered tasks.

Demonstration of abilities

The evaluator must observe the individual perform the following actions and indicate in the space provided whether each item was performed correctly. Provide comments on the back of this form for all items that are judged to be not acceptable.

	Sat.	Unsat.
Item 1: Ensure that the work area is free of gas or does not contain a combustible atmosphere.	☐	☐
Item 2: Determine proper location to perform thermoweld of wire to main.	☐	☐
Item 3: Demonstrate proper coating removal, main surface and wire preparation prior to thermoweld.	☐	☐
Item 4: Select proper thermoweld charge cartridge for type of main material.	☐	☐
Item 5: Demonstrate proper thermoweld procedure.	☐	☐
Item 6: Test thermoweld for strength after cooling.	☐	☐
Item 7: After proper cooling time, wrap thermoweld area using company approved pipe coating repair materials.	☐	☐

Evaluator's Comments (Use back and/or attach additional pages if necessary):

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OQ Ability Evaluation Record

E9.

Last Name:	First Name:	ID #:
Evaluated by:		Date:
Ability to Install and Test a Galvanic Anode		
Evaluation Location (Circle One): On-the-job Classroom or office		**Page 1 of 3**

This form is to be used to evaluate the listed ability required for one or more covered tasks.

Demonstration of abilities

The evaluator must observe the individual perform the following actions and indicate in the space provided whether each item was performed correctly. Provide comments on the back of this form for all items that are judged to be not acceptable.

	Sat.	Unsat.
Item 1: Hardware preparation: Selection of proper hand and/or power tools inclusive of thermite welding equipment and wire spicing tools. Selection of proper electrical test equipment inclusive of reference electrode. Selection of proper safety equipment inclusive of safety goggles and gloves.	☐	☐
Item 2: Anodes and related parts: Selection of proper size and type of galvanic anode(s). Selection of extra wire, hook-up boxes or test stations, if required.	☐	☐
Item 3: Placement of the anode(s): Demonstrate the ability to place the galvanic anode(s) correctly in relation to the structure. Demonstrate that proper backfill procedures were adhered to inclusive of adding moisture to the backfill as required to activate the anode.	☐	☐
Item 4: Connection to the structure: Demonstrate the ability to clean and prepare structure for thermite welding. Demonstrate the ability to attach the wire or cable to the structure to be protected using a thermite welder inclusive of all safety equipment.	☐	☐
Item 5: Testing the installation: Demonstrate the ability to test the current output of the anode(s). Demonstrate the ability to test the pipe-to-soil potential of the structure with the anode(s) installed.	☐	☐

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OQ Ability Evaluation Record

Item 6: Record the readings: Record the pipe-to-soil reading on the company forms with accuracy adhering to company standards. Record the location of the anode(s) on company forms/maps with accuracy adhering to company standards.	☐	☐
Item 7: Repair coating at anode attachment point: Demonstrate repairing the coating where the anode(s) were connected to the structure.	☐	☐

Task Specific Abnormal Operating Conditions (AOC's)

Severe corrosion on a pipeline

Describe a severe corrosion condition on a pipeline. (select one answer)

[ ] Damaged coating

[ ] ≥ 10 % of metallic wall thickness gone

[ ] Pipeline needs paint

How would you react to a severe corrosion condition on a pipeline? (select one answer)

[ ] Alert the Superintendent or Manager.

[ ] Recoat the pipeline

[ ] Install a new anode

Unacceptable pipe-to-soil potentials

What is considered an unacceptable pipe-to-soil potential ? (select one answer)

[ ] Greater than -.850 V

[ ] Less than -.850 V

[ ] Inability to obtain a pipe-to-soil potential

How should you react to an unacceptable pipe-to-soil potential ? (select one answer)

[ ] Record the pipe-to-soil reading regardless of the level

[ ] Notify the Superintendent or Manager

[ ] Change batteries in the voltmeter

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OQ Ability Evaluation Record

Ability to Install and Test a Galvanic Anode (cont'd.)

Task Specific Abnormal Operating Conditions (AOC's) (cont'd.)

Damaged pipe

What is considered a damaged pipe? (select one answer)

[ ] Bare shinny metal

[ ] Damage to pipe from outside forces

[ ] Blackened piping surface

How would you recognize damaged pipe? (select one answer)

[ ] Pipe-to-soil potential readings

[ ] Visual inspection

[ ] Rusty pipe surface

How would you react to discovering damaged pipe? (select one answer)

[ ] Paint the pipe

[ ] Notify the Superintendent or Manager

[ ] Notify the Fire Department

Evaluator's Comments (Use back and/or attach additional pages if necessary):

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OQ Ability Evaluation Record

E10.

Last Name:	First Name:	ID #:
Evaluated by:		Date:
Ability to Prepare a Pipeline for Coating Application		
Evaluation Location (Circle One):	**On-the-job** **Classroom or office**	**Page 1 of 3**

This form is to be used to evaluate the listed ability required for one or more covered tasks.

Demonstration of abilities

The evaluator must observe the individual perform the following actions and indicate in the space provided whether each item was performed correctly. Provide comments on the back of this form for all items that are judged to be not acceptable.

	Sat.	Unsat.
Item 1: Hardware preparation: Select proper hand and power tools for cleaning the pipeline. Select sheet plastic to collect old coating in ditch if applicable. Select proper containers to collect old coating if applicable. Select adequate protective clothing and safety equipment inclusive of: (e.g. face shield, safety goggles, respirators, dust masks, hearing protection, gloves, etc).	☐	☐
Item 2: Removal of old coating if applicable: Utilize plastic sheet to line ditch in work area if applicable. Demonstrate removal of old coating with hand or power tools without damaging the pipeline. Utilize containers to collect old coating if applicable.	☐	☐
Item 3: Cleaning the pipe surface: Demonstrate cleaning the pipeline, to the specification applicable to the coating to be applied, utilizing required safety equipment.	☐	☐

Notes: Depending on the coating to be applied, cleaning the pipeline can vary from hand brushing to "Near White" sand blasting. Refer to company standards or follow recommendations of the manufacturer who supplies the coating system.

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OQ Ability Evaluation Record

Ability to Prepare a Pipeline for Coating Application (cont'd.)

Task Specific Abnormal Operating Conditions (AOC's)

Severe corrosion on a pipeline

Describe a severe corrosion condition on a pipeline. (select one answer)

[ ] Damaged coating

[ ] ≥ 10 % of metallic wall thickness gone

[ ] Pipeline needs paint

How would you react to a severe corrosion condition on a pipeline? (select one answer)

[ ] Alert the Superintendent or Manager.

[ ] Recoat the pipeline

[ ] Install a new anode

Unacceptable pipe-to-soil potentials

What is considered an unacceptable pipe-to-soil potential ? (select one answer)

[ ] Greater than -.850 V

[ ] Less than -.850 V

[ ] Inability to obtain a pipe-to-soil potential

How should you react to an unacceptable pipe-to-soil potential ? (select one answer)

[ ] Record the pipe-to-soil reading regardless of the level

[ ] Notify the Superintendent or Manager

[ ] Change batteries in the voltmeter

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OQ Ability Evaluation Record

Ability to Prepare a Pipeline for Coating Application (cont'd.)

Task Specific Abnormal Operating Conditions (AOC's)

Damaged pipe

What is considered a damaged pipe? (select one answer)

[ ] Bare shinny metal

[ ] Damage to pipe from outside forces

[ ] Blackened piping surface

How would you recognize damaged pipe? (select one answer)

[ ] Pipe-to-soil potential readings

[ ] Visual inspection

[ ] Rusty pipe surface

How would you react to discovering damaged pipe? (select one answer)

[ ] Paint the pipe

[ ] Notify the Superintendent or Manager

[ ] Notify the Fire Department

Evaluator's Comments (Use back and/or attach additional pages if necessary):

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OQ Ability Evaluation Record

E11.

Last Name:	First Name:	ID #:
Evaluated by:		Date:
Ability to Apply Tape Coatings		
Evaluation Location (Circle One):	**On-the-job** **Classroom or office**	**Page 1 of 1**

This form is to be used to evaluate the listed ability required for one or more covered tasks.

Demonstration of abilities

The evaluator must observe the individual perform the following actions and indicate in the space provided whether each item was performed correctly. Provide comments on the back of this form for all items that are judged to be not acceptable.

	Sat.	Unsat.
Item 1: Hardware preparation: Selects proper hand and power tools for cleaning the pipeline. Selects sheet plastic to collect old coating in ditch if applicable. Selects proper containers to collect old coating if applicable. Selects adequate protective clothing and safety equipment (e.g. face shield, safety goggles, respirators, dust masks, hearing protection, gloves, etc).	☐	☐
Item 2: Removal of old coating if applicable: Utilizes plastic sheet to line ditch in work area, if required by company Removes old coating without damaging the pipeline. Utilizes containers to collect old coating if required by company	☐	☐
Item 3: Cleaning the pipe surface: Cleans the pipeline to the specification applicable to the coating to be applied	☐	☐
Item 4: Materials selection: Selects tape coating system to apply. Selects tape rolls of proper width for the intended job. Selects primer designated for the tape being used. Selects proper cover tape.	☐	☐
Item 5: Application of coating system: Applies the primer to the pipeline at the approved coverage rate. Allows time for the primer to "tack". Applies the tape to the pipe without wrinkles, gaps or other deficiencies. Applies tape with proper tension. Applies cover tape to strengthen the tape system (optional).	☐	☐
Item 6: Inspection of coating system: Inspects the coating system for defects. Repairs any holidays found.	☐	☐

Evaluator's Comments (Use back and/or attach additional pages if necessary):

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OQ Ability Evaluation Record

E12.

Last Name:	First Name:	ID #:
Evaluated by:		Date:
Ability to Use Pipe Locating Equipment and Mark Lines		
Evaluation Location (Circle One): On-the-job Classroom or office		**Page 1 of 1**

This form is to be used to evaluate the listed ability required for one or more covered tasks.

Demonstration of abilities

The evaluator must observe the individual perform the following actions and indicate in the space provided whether each item was performed correctly. Provide comments on the back of this form for all items that are judged to be not acceptable.

	Sat.	Unsat.
Item 1: Pre-use equipment checks Checks battery, cables, clamps, etc. Performs tests per manufacturer's procedures, if applicable.	☐	☐
Item 2: Properly connects the leads to the pipeline or tracer wire.	☐	☐
Item 3: Operates equipment in accordance with manufacturer's procedures. Recognizes indications of signal bleed over, ghost conductor and air coupling. Recognizes indications of broken tracer wire, if applicable.	☐	☐
Item 4: Marks location of pipeline using proper color paint, flags, stakes, etc. Marks locations where pipelines change direction. Checks for differences between marked lines and pipeline maps.	☐	☐
Item 5: Records results of line locating on proper forms.	☐	☐

Evaluator's Comments (Use back and/or attach additional pages if necessary):

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OQ Ability Evaluation Record

E13.

Last Name:	First Name:	ID #:
Evaluated by:		Date:
Ability to Purge Pipelines		
Evaluation Location (Circle One):	**On-the-job** **Classroom or office**	**Page 1 of 2**

This form is to be used to evaluate the listed ability required for one or more covered tasks.

Demonstration of abilities

The evaluator must observe the individual perform the following actions and indicate in the space provided whether each item was performed correctly. Provide comments on the back of this form for all items that are judged to be not acceptable.

	Sat.	Unsat.
Item 1: Eliminates sources of ignition	☐	☐
Item 2: Ensures that the area above the pipe where gas will vent is safe (no air intakes, windows, etc.)	☐	☐
Item 3: Opens the valve to purge air out as rapidly as possible (Takes care not to trip excess flow valve, if present)	☐	☐
Item 4: Closes the valve when gas odor is detected (CGI Reading, etc.)	☐	☐

Note: This checklist is intended to evaluate the ability of individuals to perform minor purging procedures in which control of gas flow and pressures are not critical, such as purging air from short lengths of small diameter pipelines.

Task Specific Abnormal Operating Conditions (AOC's)

Water or other liquids in the pipeline

Under what conditions would water or other liquids in the pipeline be recognized? (select the best answer)

[ ] During tapping/stopping procedures

[ ] During purging procedures

[ ] During pipe repair procedures

[ ] All of the above

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OQ Ability Evaluation Record

Ability to Purge Pipelines (cont'd.)

Task Specific Abnormal Operating Conditions (AOC's)

Water or other liquids in the pipeline (cont'd.)

How should you react to water or other liquids in the pipeline?

[ ] Clean up the water or liquids

[ ] Notify the Superintendent or Manager

[ ] Notify the Fire Department

Evaluator's Comments (Use back and/or attach additional pages if necessary):

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OQ Ability Evaluation Record

E14.

Last Name:	First Name:	ID #:
Evaluated by:		Date:
Ability to Control Gas Flow While Purging		
Evaluation Location (Circle One): On-the-job Classroom or office		**Page 1 of 2**

This form is to be used to evaluate the listed ability required for one or more covered tasks.

Demonstration of abilities

The evaluator must observe the individual perform the following actions and indicate in the space provided whether each item was performed correctly. Provide comments on the back of this form for all items that are judged to be not acceptable.

	Sat.	Unsat.
Item 1: Installs and properly reads pressure gauge(s)	☐	☐
Item 2: Maintains adequate upstream pressure	☐	☐
Item 3: Monitors vented gas pressure and/or gas-air mixture (if applicable)	☐	☐

Note: This checklist evaluates abilities required for large purging procedures that are complex but not requiring the use of inert gas.

Task Specific Abnormal Operating Conditions (AOC's)

Conditions requiring shutdown or MAOP reduction

What conditions could require shutdown or MAOP reduction? (select one answer)

[ ] Water or other liquids in the pipeline

[ ] A leak, fire, overpressure condition or physical damage to the pipeline

[ ] Unacceptable pipe-to-soil potential

How would you recognize that conditions requiring shutdown or MAOP reduction exist? (select the best answer)

[ ] Excessive pressure on gauges

[ ] Odorant Smell, Noise, Visual observation

[ ] Dead vegetation near pipelines

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OQ Ability Evaluation Record

Ability to Control Gas Flow While Purging (cont'd.)

Task Specific Abnormal Operating Conditions (AOC's) (cont'd.)

Conditions requiring shutdown or MAOP reduction (cont'd.)

What should you do if you discover conditions requiring shutdown or MAOP reduction? (select one answer)

[ ] Continue to purge the pipeline

[ ] Advise the Superintendent or Manager.

[ ] Call the Fire Department

Evaluator's Comments (Use back and/or attach additional pages if necessary):

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OQ Ability Evaluation Record

E15.

Last Name:	First Name:	ID #:
Evaluated by:		Date:
Ability to Use a Combustible Gas Indicator		
Evaluation Location (Circle One): On-the-job Classroom or office		**Page 1 of 1**

This form is to be used to evaluate the listed ability required for one or more covered tasks.

Demonstration of abilities

The evaluator must observe the individual perform the following actions and indicate in the space provided whether each item was performed correctly. Provide comments on the back of this form for all items that are judged to be not acceptable.

	Sat.	Unsat.
Item 1: Pre-use setup: Conducts daily operation check (e.g. voltage, air-tightness, calibration).	☐	☐
Item 2: Use of the CGI Places probe properly. Recognizes LEL and % Gas scales.	☐	☐
Item 3: Able to read correct LEL and % Gas.	☐	☐

Evaluator's Comments (Use back and/or attach additional pages if necessary):

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OQ Ability Evaluation Record

E16.

Last Name:	First Name:	ID #:
Evaluated by:		Date:
Ability to Conduct a Leakage Survey and Determine Leak Sources		
Evaluation Location (Circle One): On-the-job Classroom or office		**Page 1 of 1**

This form is to be used to evaluate the listed ability required for one or more covered tasks.

Demonstration of abilities

The evaluator must observe the individual perform the following actions and indicate in the space provided whether each item was performed correctly. Provide comments on the back of this form for all items that are judged to be not acceptable.

	Sat.	Unsat.
Item 1: Identifies available openings(over and inside manhole covers, catch basins, sewer openings, telephone duct openings, fire/traffic signal boxes, curbline/pavement/sidewalk cracks, basement/foundation cracks, vaults and other available surface openings.).	☐	☐
Item 2: Sketches mains and service lines in survey area including available openings and other surveyed structures listed in Items 1 and 2.	☐	☐
Item 3: Determines leak source using survey data according to company procedures.	☐	☐
Item 4: Understands when a barhole leak survey is necessary in order to assist in determining the leak sources.	☐	☐
Item 5: Utilizes vegetative survey analysis as a supplement to instrument survey.	☐	☐
Item 6: Able to conduct effective survey with wind, ice/snow surface sealing conditions.	☐	☐
Item 7: Prepares leak investigation/survey reports, diagrams and forms.	☐	☐

Notes: Employee should be familiar with proper operation of specific leakage survey equipment.

Evaluator's Comments (Use back and/or attach additional pages if necessary):

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OQ Ability Evaluation Record

E18.

Last Name:	First Name:	ID #:
Evaluated by:		Date:
Ability to Perform Leak Classification (Grading)		
Evaluation Location (Circle One): On-the-job Classroom or office		**Page 1 of 1**

This form is to be used to evaluate the listed ability required for one or more covered tasks.

Demonstration of abilities

The evaluator must observe the individual perform the following actions and indicate in the space provided whether each item was performed correctly. Provide comments on the back of this form for all items that are judged to be not acceptable.

	Sat.	Unsat.
Item 1: Recognizes Class 1 leaks: Leak inside building Leak at building perimeter (outside) Company policies for Grade 1 leaks Any leak which can be seen, heard or felt	☐	☐
Item 2: Understands reaction to a Class 1 leak: Make area safe protecting life and property first Records company required information and schedule leak for immediate repair	☐	☐
Item 3: Recognize Class 2 and Class 3 leaks: Leak on exposed company piping and appurtenances Company policies for Grade 2 leak Any Class 3 leak which may migrate under ground frost conditions	☐	☐
Item 4: React to Class 2 and Class 3 leak: Record company required information	☐	☐

Evaluator's Comments (Use back and/or attach additional pages if necessary):

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OQ Ability Evaluation Record

E20.

Last Name:	First Name:	ID #:
Evaluated by:		Date:
Ability to Inspect a Pressure Regulator Station		
Evaluation Location (Circle One):	**On-the-job** **Classroom or office**	**Page 1 of 2**

This form is to be used to evaluate the listed ability required for one or more covered tasks.

Demonstration of abilities

The evaluator must observe the individual perform the following actions and indicate in the space provided whether each item was performed correctly. Provide comments on the back of this form for all items that are judged to be not acceptable.

	Sat.	Unsat.
Item 1: Demonstrate proper pressure/flow control using a pilot loaded or self operated regulator assembly: Properly start-up regulator. Properly adjust outlet set pressure.	☐	☐
Item 2: Demonstrate proper regulator bypass techniques for maintenance purposes: Properly demonstrate valve closure and opening sequence to ensure that system MAOP is not exceeded. Properly demonstrate valve closure and opening sequence to ensure that regulator station is put back in service while ensuring that system MAOP is not exceeded.	☐	☐
Item 3: Demonstrate ability to properly monitor pressure.	☐	☐
Item 4: Demonstrate the ability to check the set pressure of an external relief valve.	☐	☐

Task Specific Abnormal Operating Conditions (AOC's)

Conditions requiring shutdown or MAOP reduction

What conditions could require shutdown or MAOP reduction? (select one answer)

[ ] Water or other liquids in the pipeline

[ ] A leak, fire, overpressure condition or physical damage to the pipeline

[ ] Unacceptable pipe-to-soil potential

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OQ Ability Evaluation Record

Ability to Inspect a Pressure Regulator Station (cont'd.)

Task Specific Abnormal Operating Conditions (AOC's) (cont'd.)

Conditions requiring shutdown or MAOP reduction (cont'd.)

How would you recognize that conditions requiring shutdown or MAOP reduction exist? (select the best answer)

[ ] Excessive pressure on gauges

[ ] Odorant Smell, Noise, Visual observation

[ ] Dead vegetation near pipelines

What should you do if you discover conditions requiring shutdown or MAOP reduction? (select one answer)

[ ] Set the regulator station to normal operating conditions

[ ] Advise the Superintendent or Manager.

[ ] Call the Fire Department

Gas blowing from a pressure relief valve (This AOC is <u>not</u> applicable to operators not utilizing external relief devices)

How would you recognize that a relief device has tripped? (select one answer)

[ ] Dead vegetation around the regulator station

[ ] Loud noise, blowing gas, odorant smell

[ ] Dead insects on regulator station valves

What should you do if you discover a blowing relief device? (select one answer)

[ ] Call the Superintendent or Manager

[ ] Close the relief device block valve

[ ] Ignore the situation

Evaluator's Comments (Use back and/or attach additional pages if necessary):

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OQ Ability Evaluation Record

E21.

Last Name:	First Name:	ID #:
Evaluated by:		Date:
Ability to Control Pressure on a Manually-Operated Pressure Regulator Bypass		
Evaluation Location (Circle One): On-the-job Classroom or office		**Page 1 of 2**

This form is to be used to evaluate the listed ability required for one or more covered tasks.

Demonstration of abilities

The evaluator must observe the individual perform the following actions and indicate in the space provided whether each item was performed correctly. Provide comments on the back of this form for all items that are judged to be not acceptable.

	Sat.	Unsat.
Item 1: Demonstrate proper regulator bypass techniques for maintenance purposes: Installs pressure gauge (or manometer) to monitor downstream pressure. Operates valves to control downstream pressure.	☐	☐
Item 2: Understands how to recognize and react to overpressure (e.g. gauge or manometer pressure exceeds MAOP.	☐	☐

Task Specific Abnormal Operating Conditions (AOC's)

Conditions requiring shutdown or MAOP reduction

What conditions could require shutdown or MAOP reduction? (select one answer)

[ ] Water or other liquids in the pipeline

[ ] A leak, fire, overpressure condition or physical damage to the pipeline

[ ] Unacceptable pipe-to-soil potential

What should you do if you discover conditions requiring shutdown or MAOP reduction? (select one answer)

[ ] Set the regulator station to normal operating conditions

[ ] Advise the Superintendent or Manager.

[ ] Call the Fire Department

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OQ Ability Evaluation Record

Ability to Control Pressure on a Manually-Operated Pressure Regulator Bypass (cont'd.)

Task Specific Abnormal Operating Conditions (AOC's) (cont'd.)

Gas blowing from a pressure relief valve (This AOC is <u>not</u> applicable to operators not utilizing external relief devices)

How would you recognize that a relief device has tripped? (select one answer)

[ ] Dead vegetation around the regulator station

[ ] Loud noise, blowing gas, odorant smell

[ ] Dead insects on regulator station valves

What should you do if you discover a blowing relief device? (select one answer)

[ ] Call the Superintendent or Manager

[ ] Close the relief device block valve

[ ] Ignore the situation

Evaluator's Comments (Use back and/or attach additional pages if necessary):

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OQ Ability Evaluation Record

E22.

Last Name:	First Name:	ID #:
Evaluated by:		Date:
Ability to Use and Inspect Pressure Recording Devices/Gauges		
Evaluation Location (Circle One): On-the-job Classroom or office		**Page 1 of 1**

This form is to be used to evaluate the listed ability required for one or more covered tasks.

Demonstration of abilities

The evaluator must observe the individual perform the following actions and indicate in the space provided whether each item was performed correctly. Provide comments on the back of this form for all items that are judged to be not acceptable.

	Sat.	Unsat.
Item 1: Ensure gauges are operating properly.	☐	☐
Item 3: Accurately read and record gauge values.	☐	☐
Item 4: Install locking device(s) on pressure gauges, if applicable. (Install locking device(s) on upstream valves(s) for gauges, if applicable)	☐	☐

Evaluator's Comments (Use back and/or attach additional pages if necessary):

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OQ Ability Evaluation Record

E25.

Last Name:	First Name:	ID #:
Evaluated by:		Date:
Ability to Follow Manufacturer's Procedures to Maintain a Valve		
Evaluation Location (Circle One): On-the-job Classroom or office		**Page 1 of 1**

This form is to be used to evaluate the listed ability required for one or more covered tasks.

Demonstration of abilities

The evaluator must observe the individual perform the following actions and indicate in the space provided whether each item was performed correctly. Provide comments on the back of this form for all items that are judged to be not acceptable.

	Sat.	Unsat.
Item 1: Inspects valve for mechanical damage and leaks (bonnet, packing, flanges, fittings, etc.).	☐	☐
Item 2: If possible, operates valve through a complete cycle. Where operating conditions do not permit full cycling, partially cycles valve by hand to ensure it is not seized.	☐	☐
Item 3: If valve is inoperable, repairs according to Manufacturer's instructions (or replace).	☐	☐
Item 4: Reports all valve maintenance on the designated form.	☐	☐
Item 5: Verifies that the valve is returned to normal operating condition.	☐	☐

Evaluator's Comments (Use back and/or attach additional pages if necessary):

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OQ Ability Evaluation Record

E26.

Last Name:	First Name:	ID #:
Evaluated by:		Date:
Ability to Install a Welded Split Sleeve		
Evaluation Location (Circle One): On-the-job Classroom or office		**Page 1 of 2**

This form is to be used to evaluate the listed ability required for one or more covered tasks.

Demonstration of abilities

The evaluator must observe the individual perform the following actions and indicate in the space provided whether each item was performed correctly. Provide comments on the back of this form for all items that are judged to be not acceptable.

	Sat.	Unsat.
Item 1: Removes coating beyond weld area and clean surface with light sandblast or sand paper.	☐	☐
Item 2: In areas of corrosion, removes rust and foreign matter by grit blasting the pipe surface to a near white metal finish.	☐	☐
Item 3: Grit blasts the inside surface of the sleeve to a near white metal finish.	☐	☐
Item 4: Provides shelter if ambient temperature is less than 40°F and/or wind velocity is more than 10 mph.	☐	☐
Item 5: Dries all moisture from pipe and sleeve.	☐	☐
Item 6: Fits the sleeve to the pipe, making tack welds in the longitudinal grooves.	☐	☐
Item 7: Completes the longitudinal sleeve welds according to Company welding procedures.	☐	☐
Item 8: Visually inspects the longitudinal sleeve welds.	☐	☐
Item 9: Removes any defects in the longitudinal sleeve welds and repairs the weld using a qualified weld procedure followed by re-inspection.	☐	☐
Item 10: Completes circumferential welds.	☐	☐
Item 11: Visually inspects the circumferential sleeve welds.	☐	☐
Item 12: Removes any defects in the circumferential welds and repairs the weld using a qualified weld procedure followed by re-inspection.	☐	☐
Item 13: At the direction of cathodic protection personnel, thermoweld an anode to the sleeve.	☐	☐
Item 14: Cleans and re-coats the sleeve and carrier pipe	☐	☐

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OQ Ability Evaluation Record

Ability to Install a Welded Split Sleeve (cont'd.)

Task Specific Abnormal Operating Conditions (AOC's)

Burn-through/Penetration during welding

When welding on a pipeline carrying gas, how would you recognize that the weld has burned through the pipeline? (select the best answer)

[ ] Odorant smell

[ ] Visual indication

[ ] Sticking electrode

What should you do if you burn through while welding on a live gas pipeline? (select the best answer)

[ ] Evacuate the immediate area and call the Superintendent or Manager.

[ ] Re-weld the pipeline

[ ] Call the Fire Department

Severe corrosion on a pipeline

Describe a severe corrosion condition on a pipeline. (select one answer)

[ ] Damaged coating

[ ] ≥ 10 % of metallic wall thickness gone

[ ] Pipeline needs paint

How would you react to a severe corrosion condition on a pipeline? (select one answer)

[ ] Alert the Superintendent or Manager.

[ ] Recoat the pipeline

[ ] Install a new anode

Evaluator's Comments (Use back and/or attach additional pages if necessary):

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OQ Ability Evaluation Record

E28.

Last Name:	First Name:	ID #:
Evaluated by:		Date:
Ability to Backfill a Trench Following Maintenance		
Evaluation Location (Circle One): On-the-job Classroom or office		**Page 1 of 1**

This form is to be used to evaluate the listed ability required for one or more covered tasks.

Demonstration of abilities

The evaluator must observe the individual perform the following actions and indicate in the space provided whether each item was performed correctly. Provide comments on the back of this form for all items that are judged to be not acceptable.

	Sat.	Unsat.
Item 1: Operates backfill tools/equipment according to company standards.	☐	☐
Item 2: Follows company standards for selection and placement of padding material.	☐	☐
Item 3: Selects backfill spoil material that is free of rocks and other debris.	☐	☐
Item 4: Follows company standards for placement of backfill (proper thickness of lifts, etc.)	☐	☐
Item 5: Adheres to proper soil compaction requirements.	☐	☐
Item 6: Protects and supports gas facilities during backfill procedure.	☐	☐

Note: This evaluation is applicable to both plastic and steel gas facilities where backfilling is required. This evaluation is also applicable to hand tools as well as motorized machinery.

Evaluator's Comments (Use back and/or attach additional pages if necessary):

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OQ Ability Evaluation Record

E29.

Last Name:	First Name:	ID #:
Evaluated by:		Date:
Ability to Excavate a Pipeline for Maintenance		
Evaluation Location (Circle One): On-the-job Classroom or office		**Page 1 of 2**

This form is to be used to evaluate the listed ability required for one or more covered tasks.

Demonstration of abilities

The evaluator must observe the individual perform the following actions and indicate in the space provided whether each item was performed correctly. Provide comments on the back of this form for all items that are judged to be not acceptable.

	Sat.	Unsat.
Item 1: Obtains required utility locates prior to commencement of work.	☐	☐
Item 2: Operates excavation tools/equipment according to company standards.	☐	☐
Item 3: Carefully exposes pipeline while protecting against facility damage.	☐	☐
Item 4: Uses hand operated excavation tools within eighteen inches of utility facilities.	☐	☐
Item 5: Protects and supports gas facilities during excavation procedure.	☐	☐

Note: This evaluation is applicable to both plastic and steel gas facilities where excavation for maintenance is required.

Task Specific Abnormal Operating Conditions (AOC's)

Unacceptable pipe-to-soil potentials

What is considered an unacceptable pipe-to-soil potential ? (select one answer)

[ ] Greater than -.850 V

[ ] Less than -.850 V

[ ] Inability to obtain a pipe-to-soil potential

How should you react to an unacceptable pipe-to-soil potential ? (select one answer)

[ ] Record the pipe-to-soil reading regardless of the level

[ ] Notify the Superintendent or Manager

[ ] Change batteries in the voltmeter

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OQ Ability Evaluation Record

Ability to Excavate a Pipeline for Maintenance (cont'd.)

Task Specific Abnormal Operating Conditions (AOC's) (cont'd.)

Damaged pipe

What is considered a damaged pipe? (select one answer)

[ ] Bare shinny metal
[ ] Damage to pipe from outside forces
[ ] Blackened piping surface

How would you recognize damaged pipe? (select one answer)

[ ] Pipe-to-soil potential readings
[ ] Visual inspection
[ ] Rusty pipe surface

How would you react to discovering damaged pipe? (select one answer)

[ ] Paint the pipe
[ ] Notify the Superintendent or Manager
[ ] Notify the Fire Department

Evaluator's Comments (Use back and/or attach additional pages if necessary):

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Attachment C: Incorporation by Reference of Qualification Requirements of Companies for Performing Certain Covered Tasks in Emergencies

RGT has identified the following companies upon whom it might call for emergency assistance. RGT has reviewed the evaluation methods used by these companies to qualify persons in the following tasks and has determined that these qualification requirements are acceptable alternative methods for evaluating qualifications to perform these tasks on RGT's piping system:

Covered Tasks:	Company Name
Investigating leak/odor complaints on company piping	City of Las Vegas Gas Department, NM City of Trinidad Gas Department, (CO) Colorado Interstate Gas Company (CO) Purgatoire Valley Construction (CO)
Purging air/gas from a pipeline	City of Las Vegas Gas Department, NM City of Trinidad Gas Department, (CO) Colorado Interstate Gas Company (CO) Purgatoire Valley Construction (CO)

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Attachment D: Knowledge Based Classroom Presentations

K.1. BASIC CORROSION

K.2. PRESSURE CONTROL (REGULATORS & RELIEF DEVICES)

K.3. LEAKAGE SURVEY TECHNIQUES (INSIDE & OUTSIDE)

K.4. LOCATING

K.5. PURGING

K.6. ODORIZATION

K.7. CHARTS/GAUGES

K.8. VALVE MAINTENANCE & INSPECTION

K.9. PIPELINE REPAIR (EXCLUDES WELDING)

K.10. ABNORMAL OPERATING CONDITIONS (GENERIC & TASK SPECIFIC)

K.11. NATURAL GAS CHARACTERISTICS

NOTE: EACH OF THE LISTED CLASSROOM PRESENTATIONS INCLUDES A COMPREHENSIVE WRITTEN EXAMINATION. (EXCEPTION: K.10. DOES NOT HAVE A WRITTEN EXAMINATION).

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Attachment E: Identified Covered Tasks, KSA's Required for Qualification, and Identified Re-evaluation Intervals

COVERED TASK #	REQUIRED KSA's	RE-EVALUATION INTERVAL (YEARS)
1	K1, 10, E1-2, 6-7	2
2	K1, 10 E1-2, 6-7	1
3	K1, 10 E1-4, 6	2
4	NOT APPLICABLE	N/A
5	NOT APPLICABLE	N/A
6	K1, 10, E1-4	3
7	K1, 10 E1, 7	3
8	K1, 9-10 E1-2, 6, 8-11	3
9	K1, 9-10 E1-2, 6, 8-11	2
10	K1, E7	3
11	K1, 9-10 E1-2, 6, 8, 10-11	3
12	K1, 9-10, E7, 10-11	3
13	K3, 10-11 E1, 15-16, 18	2
14	K4, 10 E1, 12	2
15	K4, 10 E1-2, 6, 8-11	2
16	All Applicable K's and E's	2
17	K2, 10 E13-14, 21-22	2
18	K2, 5, 9-11 E10-11, 13-15, 27	2
19	K 9-11 E10-11, 13-15, 27	1
20	K1, 9-10 E1, 6, 8-11	2
21	K9-10 E28-29	3
22	K9-10 E28-29	3
23	K2-3, 5, 7, 10-11 E13-14, 20-21	2
24	K2-3, 5, 7, 10-11 E13-14, 20-21	2
25	K2, 5, 10-11 E13-14, 22	2
26	K2, 5, 10-11 E13-14, 22	2
27	K2, 5, 7, 10 E13-14, 20-22	2
28	K2, 5, 8, 10-11 E7, 13-14, 20-22, 25	2
29	K2, 5, 8, 10-11 E7, 13-14, 20-22, 25	2
30	K2, 10 E22	2
31	K2, 5, 8, 10 E20, 22, 25	2
32	K6, 10-11 E23-24	2
33	NOT APPLICABLE	N/A
34	K2, 5, 10-11 E15	2
35	BY QUALIFIED PERSONNEL ONLY	1 +/or CURRENT QUAL.
36	K3-4, 10-11 E1, 12, 15-18	2
37	K4, 9-11 E1, 7	2
38	K8, 10-11 E1, 7, 20-21, 25	2
39	NOT APPLICABLE	N/A
40	NOT APPLICABLE	N/A
41	NOT APPLICABLE	N/A
42	K10-11 E26	2,+ CURRENT QUAL.
43	K10-11 E26	2,+ CURRENT QUAL.

K = Knowledge Based Class w/ Exam, E = Field Evaluation (Demonstrating Skills & Abilities)
Evaluations E.5., E.17., E.19., E.23., E.24., E.27., E.30., and E.31. are not applicable to RGT.

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