Training and Operator Qualification

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A discussion of the training requirement of §192.805 and the state regulator’s expectations of the necessary documentation.
Before OQ

• Prior to the Operator Qualification Rule
  – Training departments
  – Training staff
  – Hands on training
  – Many days or weeks of training per year
  – Both company employees and contractors
§192.241 Inspection and test of welds.

(a) Visual inspection of welding must be conducted by an individual qualified by appropriate training and experience to ensure that...
• §192.243 Nondestructive testing.
  – (b) Nondestructive testing of welds must be performed:
    • (2) By persons who have been trained and qualified in the established procedures and with the equipment employed in testing.

(a) No person may make a plastic pipe joint unless that person has been qualified under the applicable joining procedure by:

1. Appropriate training or experience in the use of the procedure; and

No person may carry out the inspection of joints in plastic pipes required by §§192.273(c) and 192.285(b) unless that person has been qualified by appropriate training or experience in evaluating the acceptability of plastic pipe joints made under the applicable joining procedure.
§192.615 Emergency plans.

(b) Each operator shall:

2. Train the appropriate operating personnel to assure that they are knowledgeable of the emergency procedures and verify that the training is effective.
On August 3, 1994, RSPA published a notice of proposed rulemaking to establish specific training requirements for the qualification of pipeline workers (59 FR 39506). This proposal would have introduced qualification standards for personnel that perform, or supervise persons performing, regulated operations, maintenance, and emergency response functions. The purpose of the proposal was to improve pipeline safety by requiring operators to ensure the competency of pipeline personnel through training, testing, and periodic refresher training.
In response to this notice, RSPA received 131 comments that expressed a wide variety of interests and concerns. Most commenters asserted that the proposal should have taken a more general approach to qualification with broad requirements for persons performing "safety related" functions. Commenters stated that the proposal was too prescriptive and that the many references to training requirements should be modified to focus the proposal on actual qualification, rather than on the method(s) of achieving qualification.
OQ Final Rule

- Amendment 192-86
- Issued – 8/20/1999
- Effective – 10/26/1999
- Written plan in place by 4/27/2001
- Qualifications complete by 10/28/2002
OQ Final Rule

SUMMARY: This final rule requires pipeline operators to develop and maintain a written qualification program for individuals performing covered tasks on pipeline facilities. The intent of this qualification rule is to ensure a qualified work force and to reduce the probability and consequence of incidents caused by human error. This final rule creates new subparts in the gas and hazardous liquid pipeline safety regulations. It establishes qualification requirements for individuals performing covered tasks, and amends certain training requirements in the hazardous liquid regulations. This final rule was developed through a negotiation process.
Sec. 192.803 Definitions.

Evaluation means a process, established and documented by the operator, to determine an individual's ability to perform a covered task by any of the following:

...(f) On the job training...
After OQ

- After the Operator Qualification Rule
  - Training departments
  - Training staff
  - Hands-on training
  - Many days or weeks of training per year
  - Both company employees and contractors
Pipeline Safety Improvement Act of 2002

- 49 U.S.C. 60131(d)(4)

- A qualification program adopted by an operator...shall include, at a minimum...
  - A program to provide *training, as appropriate*, to ensure that individuals performing covered tasks have the necessary knowledge and skills to perform the tasks in a manner that ensures the safe operation of pipeline facilities.
• Effective 7/15/2005

• § 192.805 Qualification program.
  – Each operator shall have and follow a written qualification program. The program shall include provisions to:

    (h) After December 16, 2004, provide training, as appropriate, to ensure that individuals performing covered tasks have the necessary knowledge and skills to perform the tasks in a manner that ensures the safe operation of pipeline facilities;
§192.631 Control room management.

- (d) Fatigue mitigation. Each operator must implement the following methods to reduce the risk associated with controller fatigue that could inhibit a controller's ability to carry out the roles and responsibilities the operator has defined:
  - (3) **Train** controllers and supervisors to recognize the effects of fatigue
Training in 49 CFR 192 – After OQ

• §192.631 Control room management.
  – (h) **Training.** Each operator must establish a controller training program and review the training program content to identify potential improvements at least once each calendar year, but at intervals not to exceed 15 months. An operator's program must provide for training each controller to carry out the roles and responsibilities defined by the operator. In addition, the training program must include the following elements:
Training in 49 CFR 192 – After OQ

• §192.631(h) **Training.**
  • (1) Responding to abnormal operating conditions likely to occur simultaneously or in sequence;
  • (2) Use of a computerized simulator or non-computerized (tabletop) method for training controllers to recognize abnormal operating conditions;
  • (3) **Training** controllers on their responsibilities for communication under the operator's emergency response procedures;
• §192.631(h) Training. (continued)

• (4) Training that will provide a controller a working knowledge of the pipeline system, especially during the development of abnormal operating conditions; and

• (5) For pipeline operating setups that are periodically, but infrequently used, providing an opportunity for controllers to review relevant procedures in advance of their application.
§192.915 What knowledge and training must personnel have to carry out an integrity management program?
§192.935 What additional preventive and mitigative measures must an operator take?

– Such additional measures include, but are not limited to...providing additional training to personnel on response procedures...
• §192.947 What records must an operator keep?
  – e) Documents that demonstrate personnel have the required training, including a description of the training program, in accordance with §192.915;
Definition

• Training
  – the process of learning the skills you need to do a particular job or activity

  – synonyms: instruction, teaching, coaching, tutoring, guidance, schooling, education, orientation, indoctrination
Eversource Training Center
Eversource Training Center
Eversource Training Center
CNG/SCG Training Center
R.H. White Training Center
Training Documentation

– Dates
– Times (length of training)
– Sign-in logs
– Syllabus
– Presentation materials (PowerPoint's, handouts, etc.)
Training Documentation

- Exams (based on your procedures/standards, not generic high level)
- Exam results
- Student critiques
- Lessons learned
- Revised training
Training mentioned:

- One time in the existing rule
- Ten times in the proposed rule
• § 192.803 Definitions.
  – Evaluation means a process, established and documented by the operator, to determine an individual's ability to perform a covered task by any of the following:
    • (4) Observation during
    • (ii) On the job training
• § 192.803 Definitions.
  – Evaluation means a process, established and documented by the operator, to determine an individual's ability to perform a covered task by any of the following:
    • (5) Other forms of assessment
      – Knowledge, skills and abilities, as it applies to individuals performing a covered task, means that an individual can apply information to the performance of a covered task, has the ability to perform mental and physical activities developed or acquired through training, and has the mental and physical capacity to perform the covered task.
§ 192.805 Qualification program.

- (b) Program Requirements. The operator qualification program must, at a minimum, include provisions to:

  • (9) Provide training to ensure that any individual performing a covered task has the necessary knowledge, skills, and abilities to perform the task in a manner that ensures the safety and integrity of the operator's pipeline facilities.
• § 192.805 Qualification program.
  – (b) Program Requirements. The operator qualification program must, at a minimum, include provisions to:
    • (10) Provide supplemental training for the individual when procedures and specifications are changed for the covered task.
• § 192.805 Qualification program.
  – (b) Program Requirements. The operator qualification program must, at a minimum, include provisions to:
    • (11) Establish the requirements to be an Evaluator, including the necessary training
• § 192.807 Program effectiveness.
  – (c) Measures. The operator must develop program measures to determine the effectiveness of the qualification program...
  • (1) Number of occurrences caused by any individual whose performance of a covered task(s) adversely affected the safety or integrity of the pipeline due to any of the following deficiencies:
    – (iii) Training was not adequate for the specific covered task(s)
• § 192.807 Program effectiveness.
  – (c) Measures. The operator must develop program measures to determine the effectiveness of the qualification program...
    • (1) Number of occurrences caused by any individual whose performance of a covered task(s) adversely affected the safety or integrity of the pipeline due to any of the following deficiencies:
      – (iv) Change made to a covered task or the KSAs was not adequately evaluated for necessary changes to training or evaluation
• § 192.807 Program effectiveness.
  – (c) Measures. The operator must develop program measures to determine the effectiveness of the qualification program...
    • (1) Number of occurrences caused by any individual whose performance of a covered task(s) adversely affected the safety or integrity of the pipeline due to any of the following deficiencies:
      – (xii) Evaluator or training did not follow program or meet requirements
• § 192.809 Recordkeeping.
  – Each operator must maintain records that demonstrate compliance with this subpart.
    • (a) Individual qualification records. Individual qualification records must include:
      – (7) **Training** required to support an individual's qualification or requalification.
• § 192.809 Recordkeeping.
  – Each operator must maintain records that demonstrate compliance with this subpart
    • (b) Program records. Program records must include, at a minimum, the following:
      – (9) Criteria and training for evaluators.
## NGA Training

### CLASSROOM TRAINING GUIDELINE:

**PIPE COATING**

Supports NGA Covered Task(s):
- 11 – Applying Pipe Coating in the Field
- 12 – Cleaning and Either Coating or Jacketing Pipe for Atmospheric Corrosion
- 17 – Repair Coating on Steel Pipelines
- 23 – Inspecting the Condition of Exposed Metallic Pipe or Pipe Coating

<table>
<thead>
<tr>
<th>TOPICS</th>
<th>LECTURE TIME (approximate hours)</th>
<th>HANDS ON TIME (approximate hours per person)</th>
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<tbody>
<tr>
<td>1. Types of Pipe and Coating</td>
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<td>2. Inspecting for Pipe and Coating Damage</td>
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<td>3. Pipe Cleaning</td>
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<td>4. Measurements</td>
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<td>5. Hot Applied Tape Pipe Coatings</td>
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<td>6. Heat Shrink Sleeve Pipe Coatings</td>
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<td>7. Hot Wax Pipe Coatings</td>
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<td>8. Mastic Pipe Coatings</td>
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<td>9. Paint Pipe Coatings</td>
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<td>10. Abnormal Operating Conditions</td>
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<td><strong>Total</strong></td>
<td>3.25</td>
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<td>11. Operator Specific Policies, Standards and/or Operations &amp; Maintenance Procedures (The first session must be instructed by the gas utilities representatives)</td>
<td>As Needed</td>
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Questions?

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