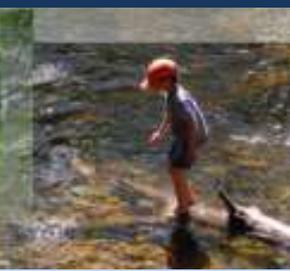




Connecticut Department of Energy and Environmental Protection



Connecticut Department of
**ENERGY &
ENVIRONMENTAL
PROTECTION**

Training and Operator Qualification

October 19, 2016

Karl Baker

2016 Pipeline Safety Seminar

Portland, ME



Connecticut Department of Energy and Environmental Protection

Agenda

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



Training in 49 CFR 192 – Before OQ

- §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...



Training in 49 CFR 192 – Before OQ

- §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.



Training in 49 CFR 192 – Before OQ

- §192.285 Plastic pipe: Qualifying persons to make joints.
 - (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



Training in 49 CFR 192 – Before OQ

- §192.287 Plastic pipe: Inspection of joints.
 - 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



Training in 49 CFR 192 – Before OQ

- §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.



OQ Rule NPRM

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**.



OQ Rule NPRM

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**.



OQ Final Rule

Only mention of the word training:

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.



OQ Amendment 192-100

- 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;



Training in 49 CFR 192 – After OQ

- §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;



Training in 49 CFR 192 – After OQ

- §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.



Training in 49 CFR 192 – After OQ

- §192.915 What knowledge and **training** must personnel have to carry out an integrity management program?



Training in 49 CFR 192 – After OQ

- §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...



Training in 49 CFR 192 – After OQ

- §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



Connecticut Department of Energy and Environmental Protection

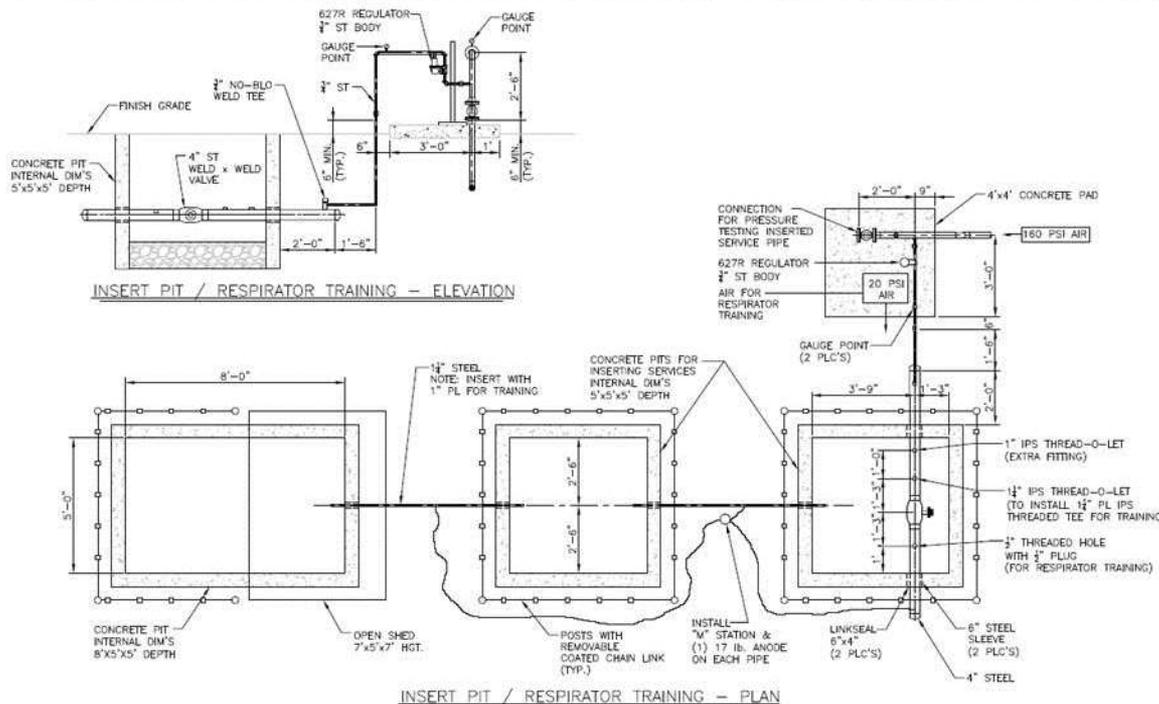


Eversource Training Center



Connecticut Department of Energy

Eversource Training Center



ronmental Protection



CNG/SCG Training Center



Connecticut Department of Energy and Environmental Protection

R.H. White Training Center



on

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



OQ 2.0

- Training mentioned:
 - One time in the existing rule
 - Ten times in the proposed rule



OQ 2.0

- § 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**



OQ 2.0

- § 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.



OQ 2.0

- § 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



OQ 2.0

- § 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



OQ 2.0

- § 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**



OQ 2.0

- § 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)



OQ 2.0

- § 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



OQ 2.0

- § 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



OOQ 2.0

- § 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.



OQ 2.0

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



Questions?

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