OQ Inspection Protocols, Applications & Results

For the Operator Qualification Rules
49 CFR Part 192 (Subpart N)
Why is OQ so Important???

Recent Headlines:

“Supervisors sentenced for deadly 1999 pipeline blast”
[relating to the Bellingham, WA liquid Pipeline Incident]

“Rescue Workers Sue Gas Company” relating to the Carlsbad, NM natural gas Pipeline Incident]
Why is OQ so Important??

- The National Transportation Safety Board and Congress are Requiring both Operators and OPS to Achieve a Higher Level of Safety Performance –

- Structured Inspection Protocols permit OPS to Evaluate and Compare Operator’s OQ Programs Fairly and Impartially
You've carefully thought out all the angles.

You've done it a thousand times.

It comes naturally to you.

You know what you're doing, it's what you've been trained to do your whole life.

Nothing could possibly go wrong, right?
Think Again !!!
Presentation Outline

- Review History ~ Anticipate Future
- Approach to Initial Inspections
- Discuss Protocols Approach
- Summarize Findings from Initial Inspections
“OQ-1” History

- Negotiated Rulemaking Produced Rules
- Rules Published 08/27/99 (Required all Individuals Performing Covered Tasks to be Qualified by 10/28/02)
- NTSB Announced that Rule was Insufficient to Support Satisfactory Closure of OQ Issue
- OPS Initiated “OQ-2”
“OQ-2” History

OQ-2 Included:
- Revisiting OQ Expectations
- Preparation of Inspection Protocols
- Development of FAQ’s
- Communication through Web Site
OQ-2 History (Cont’d)

- OQ-2 Led to:
  - Industry Concerns Re: Expansion of the Rule
  - Clarification of Related Issues
  - Series of Public Meetings to Identify and Discuss Issues
Congress Weighs-In (PSIA-2002)

- OQ Standards and Criteria Must be in Place by 12/17/03
- Regulators Must Complete Initial Inspections of all Operators by 12/17/05
- Pilot Program for Certification of Pipeline Controllers must be Completed by 12/17/05
Operators must provide **TRAINING**, as appropriate, to provide individuals with necessary knowledge and skills.

Failure of OPS to act does not excuse Operators from requirement to comply.

“Significant” modifications to the Operator’s OQ program must be communicated to OPS.
Public Meetings Conducted OQ-2 History (Cont’d)

- January 2003
  - San Antonio
- February 2003
  - Houston
- March 2003
  - Phoenix
- April 2003
  - Atlanta

- Industry raised some concerns in 1st meeting that have been collected into “Thirteen OQ Implementation Issues”
- Subsequent meetings have resolved most; rest to be addressed in a new consensus “standard”
Post-Public Meeting Events

- ASME B31Q Initiated
- Inspections Resumed Based on Updated Protocols (Reflecting Resolution of Issues)
Qualification Timeline

Transitional Qualification – If individual Performed CT regularly prior to Publish Date, may use WPHR as sole evaluation method

Effective Date 10/26/99

2 mo

Written Plan 04/27/01

18 mo

Compliance Date 10/28/02

18 mo

Subsequent Qualification

All performing CTs must be Qualified!

Publish Date 08/27/99

Initial Qualification – Otherwise, may not Use WPHR as sole evaluation method

3 mo
Sec. 192.801 Scope. (a) This subpart prescribes the minimum requirements for operator qualification of individuals performing on a pipeline facility. (b) For the purpose of this subpart, a covered task is an activity, identified by the operator, that:

1. Is performed on a pipeline facility;
2. Is an operations or maintenance task;
3. Is performed as a requirement of this part, and
4. Affects the operation or integrity of the pipeline.
Sec. 192.803 Definitions.

**Abnormal operating condition** means a condition identified by the operator that may indicate a malfunction of a component or deviation from normal operations that may:

(a) Indicate a condition exceeding design limits; or
(b) Result in a hazard(s) to persons, property, or the environment.

**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:

(a) **Written** examination;
(b) **Oral** examination;
(c) Work **performance** history review;
(d) **Observation** during:
   (1) **Performance** on the job,
   (2) **On the job training**, or
   (3) Simulations;
(e) Other forms of assessment.
Problem: Word Definitions

Qualified means that an individual has been evaluated and can:
(a) Perform assigned covered tasks; and
(b) Recognize and react to abnormal operating conditions.
Sec. 192.805 Qualification program. Each operator shall have and follow a written qualification program. The program shall include provisions to:

(a) Identify covered tasks;
(b) Ensure through evaluation that individuals performing covered tasks are qualified;
(c) Allow individuals that are not qualified pursuant to this subpart to perform a covered task if directed and observed by an individual that is qualified;
(d) Evaluate an individual if the operator has reason to believe that the individual's performance of a covered task contributed to an accident as defined in Part 195;

(e) Evaluate an individual if the operator has reason to believe that the individual is no longer qualified to perform a covered task;

(f) Communicate changes that affect covered tasks to individuals performing those covered tasks; and

(g) Identify those covered tasks and the intervals at which evaluation of the individual's qualifications is needed.
Sec. 192.807  Recordkeeping. Each operator shall maintain records that demonstrate compliance with this subpart.

(a) Qualification records shall include:

   (1) Identification of qualified individual(s);
   (2) Identification of the covered tasks the individual is qualified to perform;
   (3) Date(s) of current qualification; and
   (4) Qualification method(s).

(b) Records supporting an individual's current qualification shall be maintained while the individual is performing the covered task. Records of prior qualification and records of individuals no longer performing covered tasks shall be retained for a period of five years.
Sec. 192.809 General.

(a) Operators must have a written qualification program by April 27, 2001.

(b) Operators must complete the qualification of individuals performing covered tasks by October 28, 2002.

(c) Work performance history review may be used as a sole evaluation method for individuals who were performing a covered task prior to October 26, 1999.

(d) After October 28, 2002, work performance history may not be used as a sole evaluation method.
Key Areas Addressed by Rule

Relative importance of “key” words:

- INDIVIDUAL(S) Used 19 times
- PERFORM (variations) Used 19 times
- COVERED TASK(S) Used 16 times
- OPERATOR(S) Used 10 times
Persons Covered by OQ Rule

Individuals Who Perform Covered Tasks:

- Operator Employees
- Contractor Employees
- Sub-Contractor Employees
- “Other Entities” Performing CT’s
“Other Entities” Performing Covered Tasks
HQ Inspection Approach

- Operators Submitted Program and Covered Task List for Review Prior to Inspections

- Inspections (typically) began with Operator Presenting its OQ Program

- Regulators Worked Through Inspection Protocols and Follow-up Questions
HQ Inspection Approach

- Regulators Provided Comments on Plan Wording, Structure, etc.
- Regulators *Caucused* to Identify Additional Questions and “Findings”
- Operators Provided Responses to Additional Questions
- Regulators Led Exit Discussion on Findings
Follow-Up to HQ Inspections (Field Verification)

- Field Verifications are Conducted to verify Findings of Headquarters Program Inspection (most have been delayed beyond HQ Inspection)

- Depending on HQ Findings, Regulators will Plan more or less Extensive Field Verifications
Follow-Up to HQ Inspections (Field Verifications)

- Field Verifications are Focused on
  - Reviewing Qualification Documentation (for both Employees and Contractors)
  - Observing Employee Performance of Covered Tasks According to Operator’s Approved Procedures, and Verifying Qualifications and Knowledge of AOC’s

- Field Verifications may be Integrated with Standard Inspections
Observations from Initial Inspections: Process

- Initial, *Thorough*, Presentation by Operator of its OQ Program Helped to Focus Inspection

- Use of *Flow Diagrams* (Showing how OQ Processes Work) Contributed to Regulator’s Understanding of Program
Observations from Initial Inspections: Process

- Easy Access to Supporting Documentation and Evidence of Program Implementation Expedited Inspection
- Operator Attitude Set the Tone for the Inspection
Enforcement of the OQ Rule

- Significant Efforts Underway to Ensure Consistency of Inspections
- Enforcement of Rule may Vary among Federal and State Authorities
- OPS will Utilize all Available Enforcement Tools to Address Inadequate Plans, Records, and Compliance with the Rule, Including:
  - Notice of Amendment (NOA)
  - Notice of Probable Violation (NOPV)
    - Proposed Compliance Order (PCO)
    - Proposed Civil Penalty (PCP)
Statement on the Role of OQ Protocols

Nature of the Rule

OQ Rule is Performance-Based, which Implies a Need for

- Management Practices & Procedures
- Measurement of Program Effectiveness
Nature of the Rule – Cont’d

- Inspectors Will Evaluate Compliance with the Rule’s Prescriptive Provisions - and

- Will Evaluate the Completeness and Anticipated/Apparent Effectiveness of the Documented Approaches Taken to Qualify Individuals
The Role of Protocols

- Used to Support Inspectors & Provide Consistency in Evaluating OQ Programs

- Structured into “Protocol Questions”, which are paired directly with prescriptive and non-prescriptive requirements of the rule
Statement on the Use of OQ Protocols

- The Role of Protocols – Cont’d
  - “Enforceable” and “Non-Enforceable” Indicators (Only Prescriptive Requirements are Enforceable)
  - “Guidance Topics”
    - Expected Characteristics of an Effective OQ Program
    - Guidance Topics are Consistent with the Intent of the Rule
Observations from Initial Inspections: Findings (1)

- Programs Varied Considerably in Maturity
- Significant Differences in Number of Covered Tasks (Use of Sub-Tasks)
- Significant Differences in Tasks Deemed to be “Covered” (Definition Issue)
Observations from Initial Inspections: Findings (2)

- Significant Differences in Degree of Integration of OQ Program with Other Management Systems Already in Place
- Program “Performance Measures” are Typically Non-Existent
- Many Written Programs tended to “parrot” rule Requirements without thinking through Procedures to Implement Program
Observations from Initial Inspections: Findings (3)

- Operators Place Significant Responsibilities on Front-Line Supervisors for Success of OQ Program
- Absence of Evaluation Criteria, Qualification Documentation and Related Methodologies in Programs “set up” Supervisors for Failure
Operators Differed in Treatment of Some “Outstanding Issues”:

- O&M Activities vs. “New Construction” (A “Definition” Problem...)
- Excavation over Loaded Pipelines
- Inclusion of Emergency Response Tasks
- Integration of **Training** documentation into the OQ Program
Operators Differed in Treatment of Some “Outstanding Issues”:

- AOCs (Task-Specific often Integrated into Individual Tasks & Evaluations; Generic AOCs then Treated Separately – or Not Addressed in some cases)
- Virtually No Formalized and Documented Methodology to Identify new AOCs from “near-miss” Reporting, where such Existed
Operators Differed in Treatment of Some “Outstanding Issues”:

- Specific Guidance on Span-of-Control (for Use of Non-Qualified Individuals)

- Identifying Persons Contributing to Incident/Accident:
  - Immediate Contribution (easier)
  - Delayed Contribution (harder)
Most Operators Have Treated Some “Outstanding Issues” Similarly:

- KSA’s (Knowledge, Skills, and Abilities) usually Addressed - either in Evaluation or in “Pre-Qualification” for Evaluation
Most Operators Treated Some “Outstanding Issues” Similarly:

- Justification for Reevaluation Intervals was “Subjective” (No Evidence Provided tying Quantitative Performance Measures to the Established Intervals)

- Tendency to (Try to) Place the Compliance Burden on Contractors (by Contract)
Observations from Initial Inspections: Findings (8)

- Discomforting use of “WPHR” (Work Performance History Review) to “Pre-Qualify” Individuals – OPS calls this practice “Evaluation Light”
Observations from Initial Inspections: Findings (9)

- Rigor of Contractor Qualification Varied Considerably, Leading to Strong Concern about Adequacy of Operator’s Contractor Qualification Procedures (Will Assess Impact in Field Verification)
- Many Operators did not Consider Replacement of “out-of-service” Pipelines as O&M (a “Pipeline Facility” definition problem)
Observations from Initial Inspections: Findings (10)

- Rigor of Evaluator Credentialing (or Selection) has Varied Considerably
  A Significant Issue when Evaluation Depends on Expertise of Evaluator (e.g., Evaluation of Performance)
- Insufficient Level of Detail in Evaluation Process - Leads to Questionable Qualifications
Management of Change:
Guidance is Needed (and Often Provided) on defining
- Significance of Change
- Corresponding Impact on Qualification
- Required Action to Retain Qualification
Observations from Initial Inspections: Findings (12)

- Large Variations in Plans to Evaluate Program Effectiveness, Ranging from:
  - No Specific Plan to Review Program
  - Formally Review Program “as needed” and Assignment of Responsibility for Periodic Program Review
Likely Future Events (OQ-3)

- Near-Term Issuance of Focused Supplementary Rule
  - Documentation of Role of Training
  - Support for Reevaluation Interval
  - Reporting of “Significant Changes”
- Publication of B31Q
- 2nd Supplementary Rulemaking Based on Adoption of Standard
Staying Current