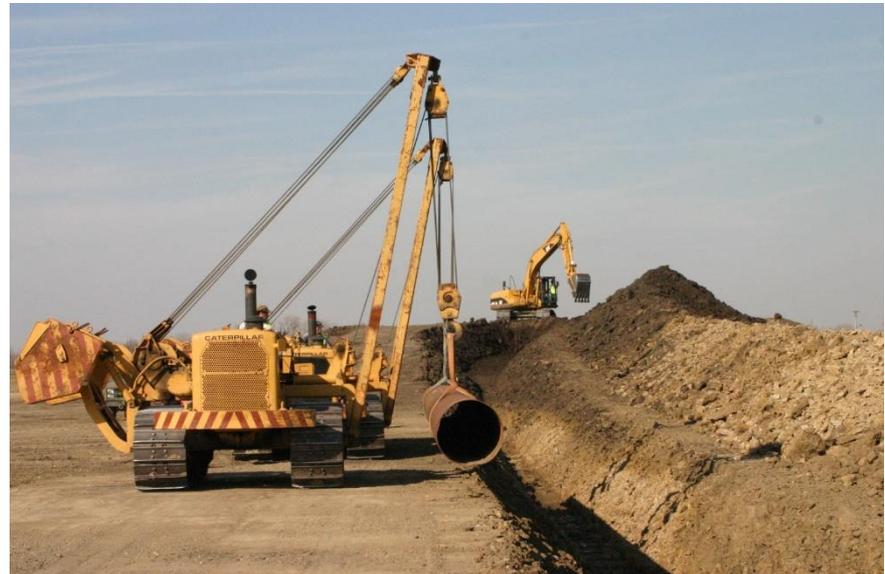


MI Pipeline Safety Conference

OQ Program Challenges



Midwest ENERGY Association

Since 1905

Serves the people that delivery electricity and natural gas to homes and business. MEA (Midwest ENERGY Association) was founded as a trade association over 100 years ago by distribution utilities, whose vision was to improve safety and efficiency. Today, utility companies around the globe benefit from MEA's industry learning seminars, operations summits, and other events. Members collaborated to develop EnergyU, the world's premier online training and testing system for gas and electric distribution utilities.

We are your **partners in operational excellence.**

Follow Us



7825 Telegraph Road Bloomington, MN 55438
www.midwestenergy.org
(651) 289-9600

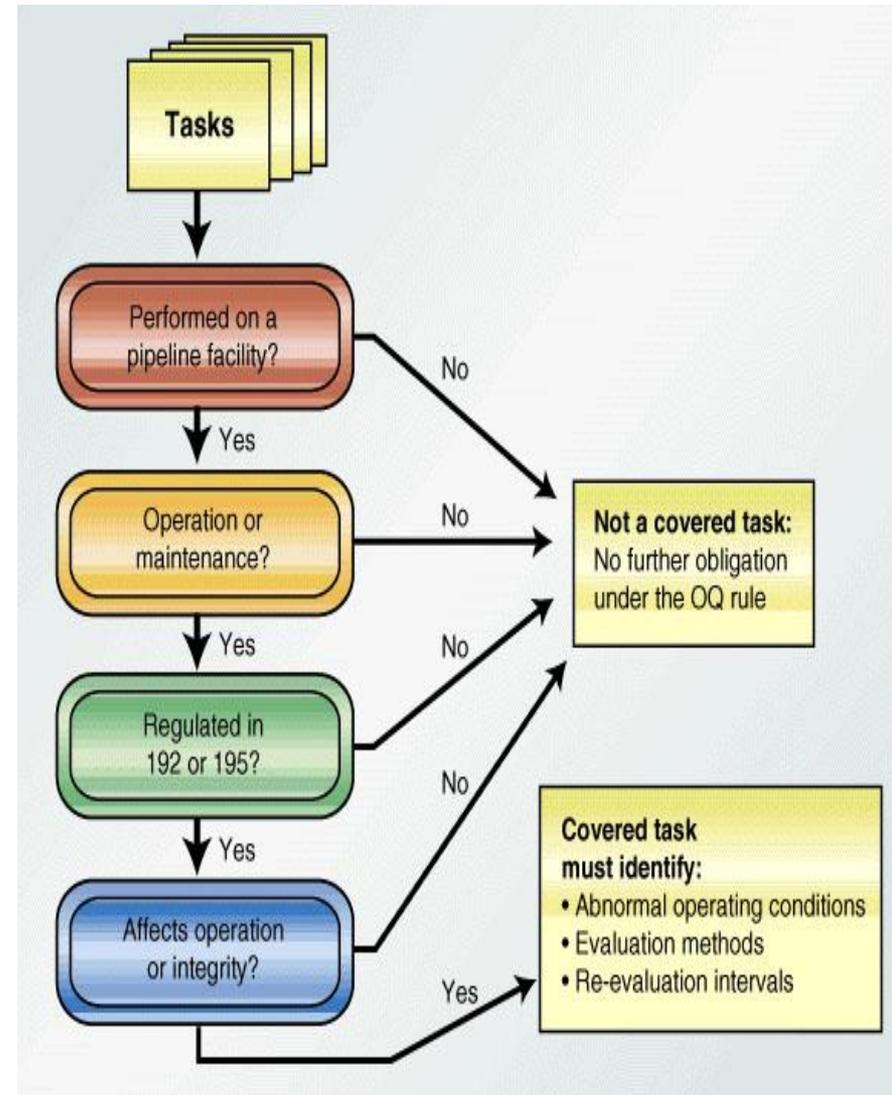
- OQ Overview (a quick review!)
- PHMSA NPRM
 - Proposed rule changes and implications
- OQ Hot Topics
 - Including ASME B31Q and portability



Operator Qualification Rule



- OQ Rule was **implemented in 2002**
 - Why? Federal response to a series of incidents in the 1990s
- OQ required *operators* of gas pipelines to develop and maintain a written program
- The goal was to ensure **qualified individuals were working safely and correctly on the pipeline**



- **MEA** was an **early pioneer** in building an OQ Program in support of its members
 - 192/195/ASME libraries
 - Training → Testing → PEFs



- PHMSA clearly placed **OQ responsibility on the OPERATOR**
 - Contractors are required to follow the operator's program
 - The start hindered portability
- OQ Rule was slow to evolve or change (2002-2014)

- Increased regulatory scrutiny
 - Prescriptive state level programs have been implemented
 - 2015 PHMSA March and July proposals
- ASME B31Q
 - Language is reflected throughout the PHMSA NPRM
 - Offers a standardized covered task list and portability
- Aging infrastructure + Aging workforce = Labor shortage
 - Timeline for onboarding new contractors needs to be closely managed and accelerated as it makes sense
 - Emphasizes the need for cooperation and portability between operators and contractors

Let's discuss each of these issues

Regulatory Scrutiny



- So what does it mean?
 - Increase in Civil Penalties and even Criminal Prosecution
 - Acceleration of certain types of work
 - Integrity Management (IM) Programs
 - Replacement of high maintenance gas piping with low maintenance plastic and steel
 - Focus on safety, training and OQ programs
 - Focus on certain types of jobs, e.g., inspectors, evaluators, welders, joiners
 - Greater attention on employee's **KSA** and job performance with an increased use of the suspension process
 - Push for more consistency between programs

- Increased regulatory scrutiny
 - Prescriptive state level programs have been implemented
 - 2015 PHMSA March and July proposals
- ASME B31Q
 - Language is reflected throughout the PHMSA NPRM
 - Offers a standardized covered task list and portability
- Aging infrastructure + Aging workforce = Labor shortage
 - Timeline for onboarding new contractors needs to be closely managed and accelerated as it makes sense
 - Emphasizes the need for cooperation and portability between operators and contractors

March PHMSA:

1. Post-construction inspection
2. Qualifying plastic pipe joiners



July PHMSA NPRM:

1. “Covered Task” Definition (§192.803)
2. “Direct and Observe” definition (§192.803)
3. Training Requirements (§192.805)
4. Program Effectiveness definition (§192.807)

March PHMSA:

1. Post-construction inspection
2. Qualifying plastic pipe

June 2016
PHMSA
open
hearing

July PHMSA NPRM:

1. “Covered Task” Definition (§192.803)
2. “Direct and Observe” definition (§192.803)
3. Training Requirements (§192.805)
4. Program Effectiveness definition (§192.807)



1. New Covered Task Definition



Proposed criteria to be used to identify a covered task:

1. Performed on a pipeline facility;
2. Is an operations or maintenance task, **including those conducted during an emergency response or is a construction task or an integrity management task;**
3. Is performed as a requirement of this part;
4. Affects the operation or integrity of the pipeline; and
5. **Design and engineering tasks performed off the pipeline facility are not included.**



Implications: 1-Increased number of personnel will fall under the OQ Rule, 2-Movement toward ASME B31Q

ASME B31Q was developed to support this definition

2. Direct and Observe

- Current: Span of Control- Ratio of nonqualified individuals that can be directed and observed by a qualified individual
- Proposed: Limit span of control to 1:1
- Implications
 - Severely impacts the use of structured OJT to train new employees
 - Prevents internships?
 - Barriers to using individuals with ability (physical or mental) restrictions?



3. Increased Training Requirements

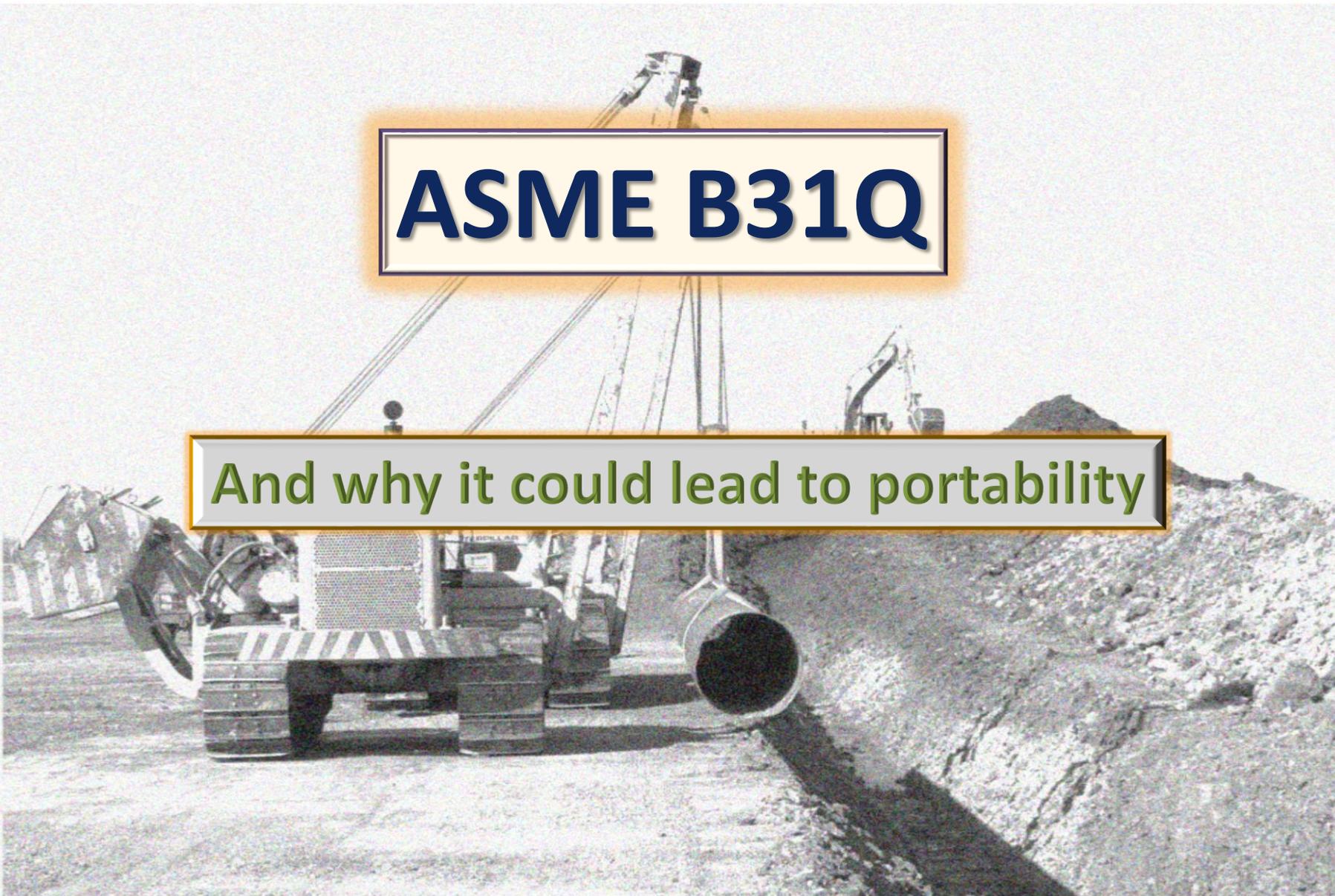
- Current: “A program to provide training, ~~as appropriate~~, to ensure that individuals performing covered tasks have the necessary knowledge and skills to perform the task in a manner that ensures the safe operations of the pipeline facilities.”
- Proposed: Training *shall* be provided
- Implications:
 - Increased focus on **KSA**
 - ✓ ... ability to perform the necessary mental and physical activities to perform the covered task
 - ✓ Creates prescreening requirements?
 - Significant expansion of training investment, including re-qualification, Evaluator Training and Program Changes
 - Increased recordkeeping and documentation



4. OQ Program Effectiveness Review

- Current: A program review process is recommended (ref. PHMSA protocols) but not required.
- Proposed: Operators shall conduct an annual program effectiveness review employing the checklist provided by PHMSA as a minimal requirement.
- Implications: Formalized OQ program effectiveness review process will increase program investment, with increased review and documentation. The process will likely require a 3rd party review or auditor.



A black and white photograph of a construction site. A large crane is lifting a massive pipe into a deep trench. The pipe is supported by several cables. In the background, there are other construction vehicles and a building. The scene is set in an open, possibly industrial or mining, area.

ASME B31Q

And why it could lead to portability

- 2015 brought increased regulatory scrutiny
 - Prescriptive state level programs have been implemented
 - PHMSA March and July proposals
- **ASME B31Q**
 - Language is reflected throughout the PHMSA NPRM
 - Offers a standardized covered task list and portability
- Aging infrastructure + Aging workforce = Labor shortage
 - Timeline for onboarding new contractors needs to be closely managed and accelerated as it makes sense
 - Emphasizes the need for cooperation and portability between operators and contractors

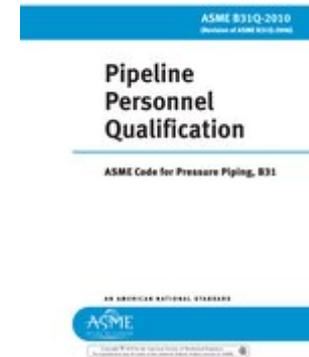
- PHMSA determined that CFR 192 and 195 were not prescriptive enough
- American Society of Mechanical Engineers (ASME) selected to help develop a **national standard**
 - ASME B31Q committee members include:
 - Federal and State Regulators
 - Operators from all segments of the industry
 - Contractor community
 - Industry Associations
 - Trade Associations
 - Vendors



- Task list is built on “Safety or Integrity” **not** 4 part test
 - Includes Construction
- Agreed upon by consensus
- Definitions and Terminology are standardized
- Program elements and process requirements are standardized
- Portability will be recognized as a key measure of success



- Standardized task list
- Standardized re-qualification frequencies
- Identifies key qualification components
- Reduces program costs for both operator and contractor
- Accepted by OPS
- Reduction in future changes to the rule
- Allows for portability



- 2015 brought increased regulatory scrutiny
 - Prescriptive state level programs have been implemented
 - PHMSA March and July proposals
- ASME B31Q
 - Language is reflected throughout the PHMSA NPRM
 - Offers a standardized covered task list and portability
- **Aging infrastructure + Aging workforce = Labor shortage**
 - Timeline for onboarding new contractors needs to be closely managed and accelerated as it makes sense
 - Emphasizes the need for cooperation and portability between operators and contractors

Several recent events in the industry have resulted in damage to people, property or the environment

- July 2010- Oil Spill, Marshall, MI
- September 2010- San Bruno, CA
- December 2010- Wayne MI
- January 2011- Philadelphia, PA
- February 2011- Allentown, PA
- February 2013- Royal Oak, MI
- March 2014- East Harlem, NY
- And many more



- U.S. pipeline system consists of 2.1 million-miles of distribution and transmission lines
- Aging cast and wrought iron pipe needs to be replaced with low maintenance plastic and steel
 - Older pipe is often in large population centers
- Significant replacement programs have been initiated in many states
 - Aging pipe is being replaced at a rate of 30,000 miles per year but there's still a long ways to go



Who will do the work?

About **40% of the work force** at America's electric and natural gas utilities will be eligible for retirement in the next five.

About **20 percent are eligible now.**

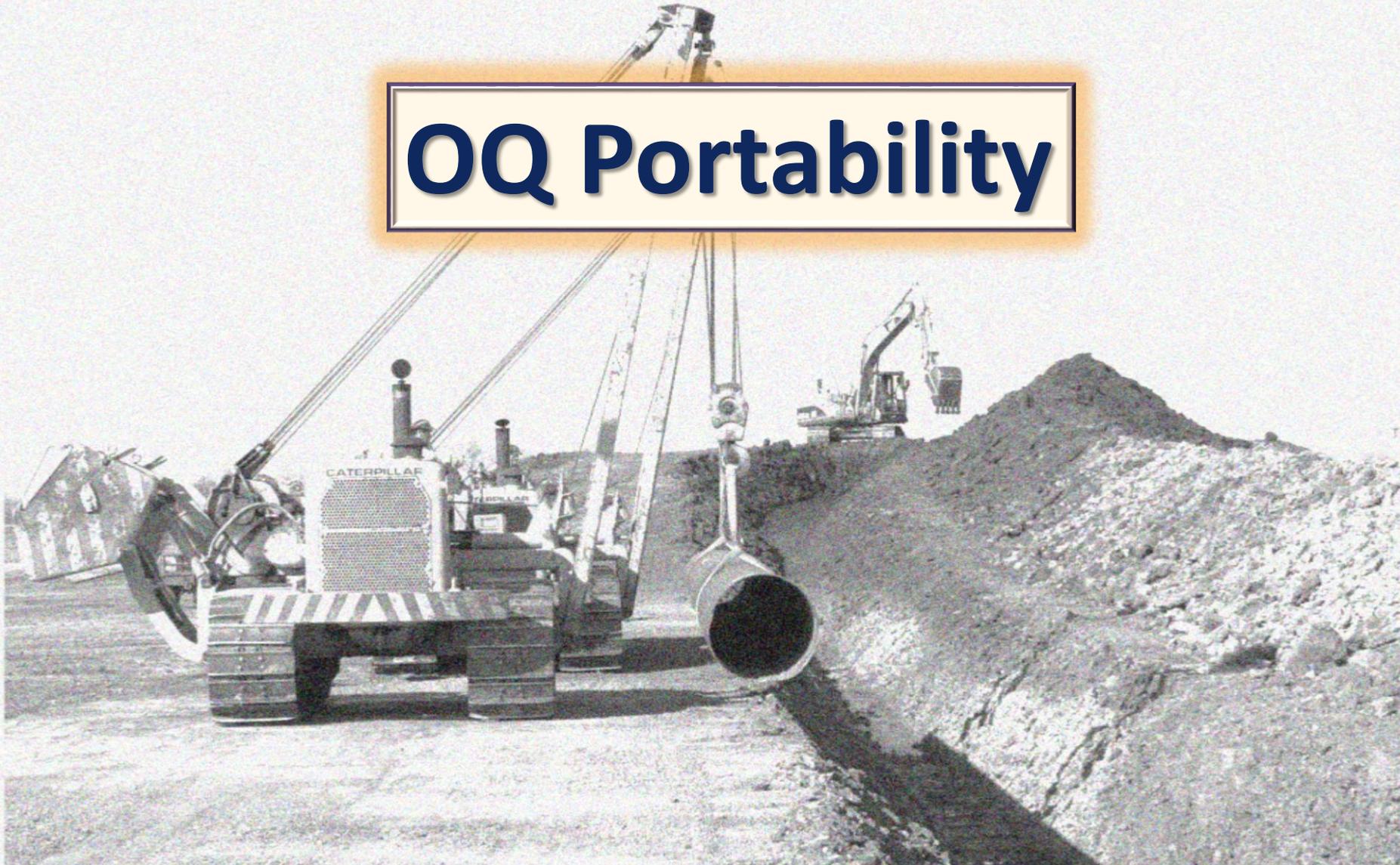
Who is going to replace them?

Source : December 2014 / Power Engineering

- Implications
 - The new generation of workers are sophisticated and confident with technology
 - But a GAP will exist in field knowledge and experience
 - Traditional training and OQ practices will need to be revamped
 - Online delivery methods
 - Adapt an accelerated pace that can respond to a “restless” work force
- Technology advances and the speed of change makes lifelong learning a must!
- The ushering in of a new workforce creates opportunities to establish new company cultures and norms

Who will do the work?

OO Portability



- 2015 brought increased regulatory scrutiny
 - Prescriptive state level programs have been implemented
 - PHMSA March and July proposals
- ASME B31Q
 - Language is reflected throughout the PHMSA NPRM
 - Offers a standardized covered task list and portability
- Aging infrastructure + Aging workforce = Labor shortage
 - Timeline for onboarding new contractors needs to be closely managed and accelerated as it makes sense
 - Emphasizes the need for cooperation and **portability** between operators and contractors

Let's Talk Portability

WHAT is Portability?

- To achieve full OQ portability means that a contractor is able to move from one operator to another without having to train and re-qualify their employees.

- *WHY Portability?*
 - The benefits includes less ambiguity, improved onboarding time, less costs, ambiguity and fewer frustrations for all stakeholders involved. Portability would also better enable mutual aid.
- *WHY Now?*
 - 2015 PHMSA NPRM signaled the need for consistency within the OQ Rule and supports the ASME B31Q language
 - Is the 2015 July PHMSA NPRM a Game Changer?
 - Aging infrastructure/Work Demands
 - Increased workload options has provided contractors leverage and a voice on OQ requirements
 - Changing Workforce
 - Baby Boomer retirements plus the reality that Millennials/ Gen X are quick to move on to new jobs means that there is a need for *faster!* onboarding processes

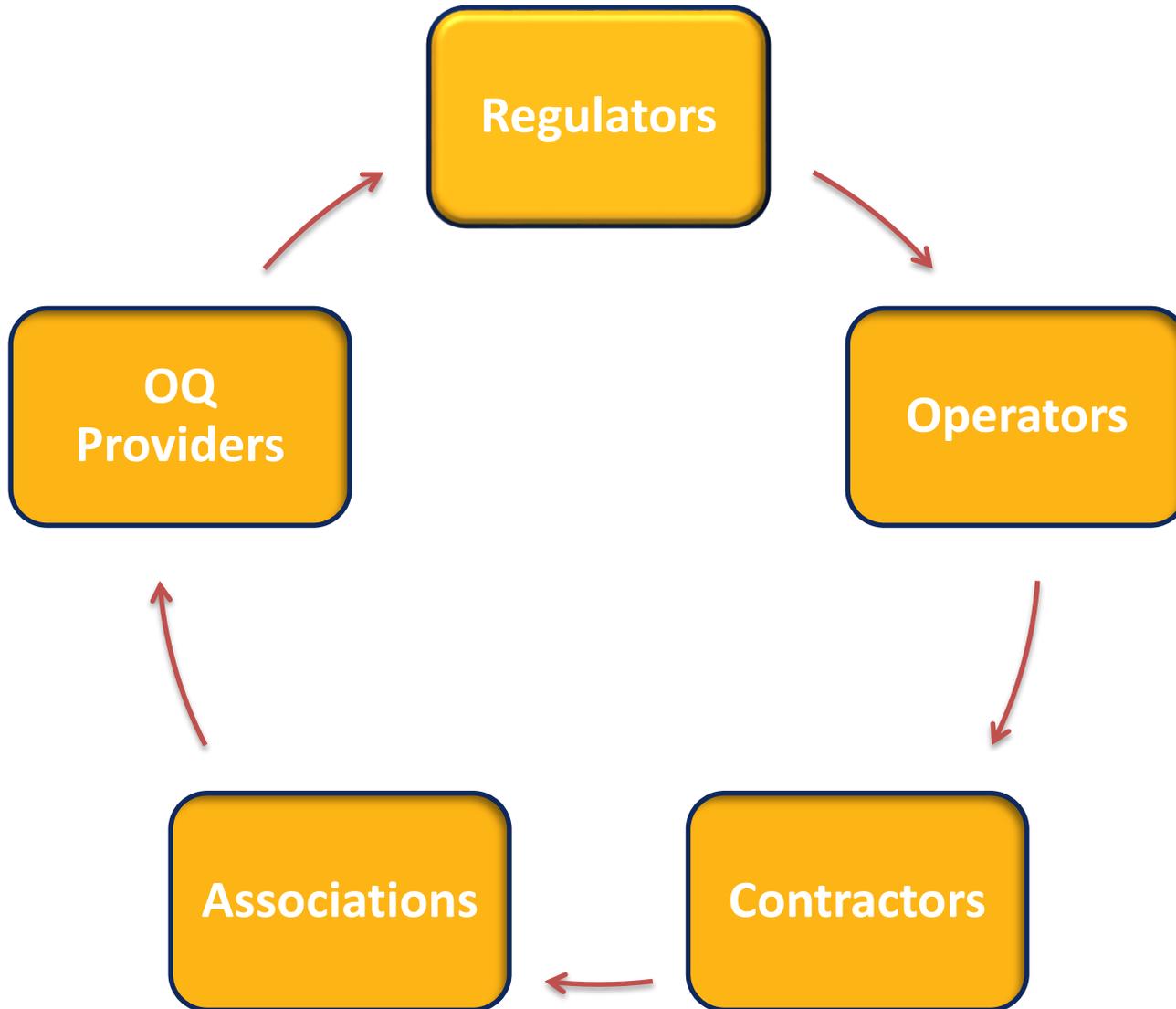
This is where
it gets
difficult!

HOW to achieve Portability?

– **BEST OPTION-** Portability would be best achieved by PHMSA incorporating by reference the ASME B31Q standard.

- Would create a national standard and a corresponding covered task list
- Would result in a high level of consistency between operator's OQ program requirements.
- This movement toward consistency would include an alignment on the type and level of training and evaluation.

- A **second path to portability** would require a ground level effort. Operators and contractors would need to reach alignment
 - MEA-DCA alliance has created a Contractor Council
 - ~15 MEA contractor members but then we will reach out to operator members and other key stakeholders
 - Goal: Align on a model or OQ “gold standard” document that could be accepted by all involved
 - Initial focus is at the state or regional level
 - Recognize that “80-20” might be the best we can achieve
 - National portability meeting held in Dallas in August
 - Well attended by Contractors, Associations and OQ providers
 - Follow-up meeting in October



What is important to each stakeholder?
How do they benefit from portability?
What must they give up to make OQ portable?

- Why Consider
 - PHMSA NPRM has moved the conversation in that direction
 - Preemptive move to manage OQ future state
 - Offers portability which means improved onboarding time, less costs, and less frustration for everyone
- How To
 - Anticipate changes and carefully plan for the transition
 - Notify MPSC due to “significant change” requirement
 - Agreed-upon ASME covered task list
 - Convert employee’s 192 tasks to matching ASME tasks
 - Consider a central repository for all records
 - Coordinate through the MI OQ Consortium and with key contractors
 - Work with your Association to ensure collaborative member solutions

- (As always) Maintain a members-driven approach
- Align with other Associations, as appropriate
- Establish a committee to specifically address portability and other contractor concerns
- Stay involved with the essential OQ standards and compliance information
- Ensure OQ remains a frequent topic at conferences and workshops
- Anticipate and plan for the PHMSA final ruling
 - Provide solutions to our members

- The OQ world is changing!
- The PHMSA Final Ruling will likely be a Game Changer
 - Will involve new costs and significant program changes
- Portability holds value to all stakeholders
 - ASME B31Q could be the key to reaching portability
- MEA will continue to work with its members to find solutions as we sort through the changes

Thank You

Questions?

Richard Stump
MEA Compliance Director
richards@midwestenergy.org
651-289-9600 x126