



**Comments to New York State Department of Public Service
Office of Electric, Gas & Water Pipeline Safety Section
Operator Qualification White Paper
Case Numbers: 14-G-0212 / 17-G-0318**

The Distribution Contractors Association (DCA) represents contractors, manufacturers, and suppliers who provide construction services including installation, replacement and rehabilitation of natural gas distribution and transmission pipelines. DCA members perform all “covered tasks” included in operator qualification (OQ) programs maintained by local distribution companies (LDCs) across the country, including in New York State. DCA appreciates the opportunity to comment on the white paper on OQ, which was released on February 12, 2019 by the New York State Department of Public Service (NY DPS).

The White Paper proposes new requirements for existing training and testing programs for employees and contractors performing covered tasks while operating in New York State. DCA has a vested interest in the White Paper not only because of the significant work conducted on distribution pipelines in New York, but also because of similar action that may be taken in other states based on the NY DPS OQ White Paper.

Background

According to NY PDS, multiple cases of substandard operator performance of covered tasks, where workers “were not properly qualified, were evaluated using only written tests (some of which were severely compromised, as described below), or whose work on covered tasks actually increased the risk and probability of accidents and incidents.”

NY DPS also points to the incident in the Merrimack Valley, Massachusetts, in September, 2018 a high profile incident where a low-pressure distribution system was over-pressurized. NY DPS indicates that “the cause appears to be, in part, improper qualification of operator workers, highlighting the need for renewed vigor with respect to the proper qualification of employees and contractors,” based on initial findings of the National Transportation Safety Board (NTSB).

“Off-the-Shelf” Programs

The OQ White Paper is highly critical of “off-the-shelf” OQ programs offered by third-party service providers who assist both operators and contractors with compliance with OQ requirements. According to NY DPS, “operators have essentially transferred the responsibility for qualifying individuals such as contractor personnel working on their systems to a third-party vendor using that vendor’s generic program.”

DCA believes that OQ service providers play an important role in ensuring a qualified workforce in today’s gas distribution market. Effective OQ service providers offer facilitated access to operators’ OQ requirements and compliance methods, as well as approaches to managing covered task lists. However, not all OQ service providers are created equal. DCA members, as well as the LDCs they work for, rely on OQ providers to facilitate compliance with varying OQ programs maintained by a range of operators.

OQ service providers who offer effective qualification methods for both common core competencies held in the vast majority of OQ programs, as well as ability to perform covered tasks and recognize and

react to abnormal operating conditions that may be specific to a respective operator, are key stakeholders in the OQ process.

OQ Integrity Process

In 2016, DCA assembled a taskforce to investigate how the gas distribution industry can improve the OQ process by providing increased consistency with OQ programs. The effort was led by subject matter experts from national associations representing pipeline operators, regional gas associations, LDCs, OQ service providers, state pipeline inspectors, and DCA contractors. This group evolved into a strong industry coalition on OQ Integrity, establishing high expectations and placing validating measures to assure member organizations are performing with “the bar raised higher” than we have often seen in our industry. This effort established the OQ Integrity Process (OQIP) to enhance OQ integrity through development and promotion of a more consistent and standardized OQ process.

The OQ Integrity Coalition realized that while a completely consistent and standardized OQ process was not a realistic goal given the uniqueness and specific requirements of each Operator, there was a strong belief that utilizing consistent approaches to qualify individuals regarding a large majority of common core competencies was realistic, with the understanding there will be certain OQ requirements held by pipeline operators that are appropriate to their unique systems.

The ASME B31Q standard on Pipeline Personnel Qualification was first published in 2006 and is regularly updated to improve OQ programs and facilitate compliance with the rule. The OQIP model relies on many provisions found within the ASME B31Q.

The OQIP is not intended to be the basis of future regulation. While increasing consistency and standardization will result in “raising the bar” by going above and beyond current regulation, this will be achieved by voluntary actions overseen by OQIP participants. Operators should not be penalized in the future for exceeding regulatory compliance in the spirit of improving the effectiveness of their OQ programs.

OQIP elements include:

People:

Trainers in the OQIP require certain prerequisites (i.e. initial training), and must be able to meet a range of responsibilities and renew their training credentials. This applies to both in-house and third-party trainers.

Proctors require orientation and must have a full understanding of their responsibilities needed to ensure the integrity of OQ testing.

Evaluators require a standard set of credentials (knowledge, skills and abilities); a full understanding of their responsibilities; required training; and renewable credentials.

Auditors for Program effectiveness require training, education and experience. Auditors must carry credentials, understand their responsibilities, and be able to review records and report audit findings.

Process

The OQIP requires *identification of all covered tasks*, relying on the effective processes already established by the ASME B31Q standard for the development of core competencies for covered tasks. Consistent with current OQ regulations, the OQIP requires an ability to recognize and react to *abnormal operating conditions*.

A list of *core common competencies* must be developed and maintained.

The OQIP includes *training requirements* regarding the content needed to provide the knowledge and skills necessary to perform covered tasks.

Knowledge Testing is a critical part of any OQ program, including minimum number of questions on an exam, maximum time limits, types of questions (multiple choice, true/false, etc.), use of test question banks, and minimum passing scores are all areas that should be considered. Time intervals between test attempts when individuals fail a test, use of proctors and other methods to provide test security, and use of reference manuals are also important considerations that are addressed in this document.

While classroom training and testing may be useful methods to initially prepare individuals to perform covered tasks safely, evaluating performance is imperative. *Performance evaluations* are conducted through “on-the-job” observations, simulations, and other methods, with the level of detail of the evaluation based on related core competencies and overall learning objectives. As with knowledge testing, use of testing books, reference manuals and other training aides during performance evaluations, as well as appropriate wait times between reevaluations must be carefully considered. Of course, proper records and other documentation regarding continued knowledge and performance observed during performance evaluations is a must.

Effective *management of change* (MOC) policies are important to pipeline operations and are considered key to maintaining a solid program. The OQIP again relies on the B31Q standard when considering MOC provisions regarding communication both at the company (employee) level and to external audiences to ensure appropriate management and communication of changes. Feedback from OQIP reviews as well as participants in the OQIP would be considered. Approved changes to the OQIP would be communicated and properly documented.

When it is necessary to *suspend or revoke an individual’s qualifications*, the OQIP offers a few rules of engagement, including who should be authorized to suspend them, what processes should be followed, and the conditions of the suspensions or revocations.

Program Validation

Validation of the OQIP will depend on audits and other methods to validate the effectiveness of the OQIP are considered a vital and ongoing part of maintaining effective qualifications of persons working on gas pipelines. The Coalition suggests a range of items for consideration.

Internal audits are imperative to determine if all areas of any OQ program are being followed and if intended goals are being achieved. Procedures, training, testing, evaluations (including field audits of individuals’ performance) and records will be conducted using a standardized audit form.

Contractor audits should focus on core competencies and how well the contractor is ensuring that personnel performing covered tasks are qualified to do so, as well as their ability to recognize and react to AOCs. Review of trainers, proctors, evaluators and others, as well as training curriculum and evaluation records would be all reviewed under the OQIP model.

Operator audits would focus on the operations and practices that are unique to that operator’s program and how well the operator is ensuring that any contract personnel performing covered tasks is qualified,

and that they are able to recognize and react to AOCs. Procedures, standards, training, evaluations and other requirements such as span-of-control, MOC, etc. would be part of an operator's internal audit.

Consistent with B31Q and pending PHMSA rulemaking action, the OQIP would require participants to review *program effectiveness*, recognizing this should be included in any program that will be closely examined by regulatory entities. Program effectiveness reviews would include all areas of the OQ process, including ensuring all personnel performing covered tasks have been provided all company-specific information. Additionally, detailed information regarding how individuals determined to have adversely affected the safety and integrity of an operator's pipeline are reviewed and what corrective actions are taken.

Knowledge, skills and abilities (KSAs) and related training/testing regarding covered tasks, MOC, and performance evaluations are all on the "consideration table" during program effectiveness under the OQIP model.

Use of *independent, third-party audits* are also included in the OQIP. Scrutiny by audits, both internal and third-party, lend credibility to OQ integrity and validity of the OQIP. Third-party audits would be followed by summaries for the contractor and operator that identify areas that need improvement and provide recommendations to address those areas. After comparisons of audits are made, an action plan would be developed that address areas of needed improvement, including communicating any changes to all affected personnel.

Participants in the OQIP would agree to a range of recordkeeping and documentation requirements to ensure for ongoing integrity. This would include agreeing to working with approved third-party vendor(s) and a range of requirements with regard to use of contractor and operator data.

Specific Changes Proposed by NY DPS

New requirements proposed in the NY DPS OQ White Paper maintained by LDCs include:

- **Training: operators must provide sufficient training to ensure that any worker performing a covered task has the necessary knowledge, skills, and abilities to perform the task.**

NY PDS indicates that training and testing must be fundamental to operator qualification.

Consistent with OQIP provisions, DCA believes training materials must include content necessary to convey the knowledge and skills necessary to perform a task in alignment with the core competencies identified in the ASME B31Q.

Training content should sufficiently prepare an individual to perform covered tasks, including consideration for the individual's required knowledge and skills.

Training material should be developed using industry best practices for identification of learning objectives and content development. As such, training content utilized in the OQ Integrity Program should be developed utilizing methodology established by IACET (International Association for Continuing Education and Training), ANSI (American National Standards Institute), Association for Talent

Development (ATD), or similar industry recognized, and accredited programs intended for the development of training and educational content.

While training is a fundamental part of the process, participation in the OQIP requires more than extensive training. Significant knowledge testing is needed to ensure that training methods have sufficiently prepared workers to perform covered tasks safely and to be able to recognize and react to AOCs.

- **Worker Evaluations: evaluate worker competency for each covered task in which the worker will be deemed qualified through both a written (or oral) examination and a practical evaluation, which includes observation during performance on the job or during simulation(s).**

DCA agrees. Consistent with the OQIP, performance evaluations should be completed by authorized evaluators per OQIP requirements. Appropriate evaluation including on-the-job, simulations, equipment requirements, etc. would be appropriate.

AOC's must be addressed in the performance evaluation.

Test Security

- Proctoring s required on all tests.
- Test security is fundamental to ensuring a workforce prepared for demand.
- Security measures must be required for written evaluations to eliminate the opportunity for cheating.
- Records of individually identifiable test results must be retained by the test provider, and individually identifiable test results must be retained by the test provider.
- Access to the test materials must be controlled by Program administrators.
- Paper copies must be kept in a secure location.
- Detailed records for Program effectiveness analytics and audits must be retained by the test provider.
- Electronic delivery of exams is a preferred method and should be utilized wherever technology and internet access allow.

The use of Training Books or Study Aids is not allowed during the examination process. Technical Reference Materials may be used and include a company's policies and procedures that are available in the field, such as Operation & Maintenance Manuals, Standard Operating Procedures, Construction Manuals, and other similar official policies and procedures.

- **Practical Evaluations: practical evaluations would be administered with one evaluator per each worker being evaluated.**

The OQIP includes several evaluation requirements, including:

- Mandatory evaluations under the OQIP model;
- Required credentials for evaluators;
- Pass/fail evaluations;
- Evaluations allowed "on-the-job," stimulators, etc.;
- Provisions regarding allowable test attempts, required waiting periods between tests, maximum tests allowed, etc.; and
- Span of Control addressed in audits and deficiencies.

DCA agrees with the Management of Change (MOC) communication requirements of the OQIP Program, including:

- Communication requirements at the participating company level.
- Participants in the Program should follow the ASME B31Q or similar methodology to ensure appropriate management and communication of changes.
- Communication requirements of participating companies to the OQIP.

Program Effectiveness: an operator shall conduct a program effectiveness review once each calendar year, and measure a program's effectiveness with certain criteria.

The OQ Integrity Coalition will evaluate its Program Effectiveness (PE) each calendar year, not to exceed 15 months. Contractor/subcontractor employees could be performing covered tasks for many operators in a given year; each operator that utilizes the OQ Integrity Program will be responsible for ensuring individuals have been given all "company-specific" information to correctly perform the covered tasks on their facilities.

PE elements have been identified and aligned into specific requirements and who is responsible for addressing each item (different work contracts may carry different responsibilities).

Specific PE elements are identified in the OQIP overview document, and utilization of an interview process may provide insight and information that an individual made certain choices, regardless of their training and evaluation, that adversely affected safety and integrity of the operator's pipeline. These could include, (1) choosing to not follow the procedure, (2) attempting to perform the task that they had not performed in a number of months, (3) a distraction, or (4) influence or pressure from another individual.

Conclusion

DCA believes the merits to this approach will be enjoyed by operators, contractors, and regulators.

Possible benefits include:

- Risk mitigation
- Regulatory confidence
- Mutual-aid agreements and response time between operators and contractors
- Standardized regulatory compliance
- Addressing challenges to replace aging infrastructure coupled by an aging workforce entering retirement
- Consistency for regulatory audits
- Continuous improvements to OQ programs

From the beginning, the Coalition worked to identify and build on a wide range of elements that will serve as the backbone of the OQIP. These elements are driven by expectations of both operators and regulators, and consistency of the OQ process must be pursued through enhanced training, knowledge testing, and performance evaluations with an auditable validation of Program effectiveness.