



June 21, 2021

Honorable Michelle L. Phillips
Secretary
New York State Public Service Commission
Three Empire State Plaza
Albany, New York 12223-1350

Re: CASE 19-G-0736 – In the Matter of the Rules and Regulations of the Public Service Commission, Contained in 16 NYCRR – Proposed Amendments to Chapter III, Gas Utilities, Subchapter C, Safety, to Improve Operator Qualification Programs.

Via Email

Dear Secretary Phillips:

The Northeast Gas Association¹ (NGA) respectfully submits the following comments on behalf of our New York State natural gas local distribution company members (“NY LDCs”) in response to the above referenced Notice.

For the purposes of this filing, the LDCs are:

- Central Hudson Gas and Electric Corp.
- Consolidated Edison Company of New York, Inc.
- Corning Natural Gas Corp.
- Hamilton Municipal Gas
- Liberty Utilities
- National Fuel Gas Distribution Corp.
- National Grid²
- New York State Electric and Gas Corp.
- Orange and Rockland Utilities, Inc.
- Rochester Gas and Electric Corp.
- Valley Energy Inc.

¹ The Northeast Gas Association is a regional trade association that focuses on education and training, technology research and development, operations, planning, and increasing public awareness of natural gas in the Northeast U.S. The Northeast Gas Association (NGA) represents natural gas distribution companies, transmission companies, liquefied natural gas suppliers and associate member companies. Its member companies provide natural gas service to 14 million customers in 9 states (CT, MA, ME, NH, NJ, NY, PA, RI, VT).

² National Grid collectively refers to The Brooklyn Union Gas Company d/b/a National Grid NY (“KEDNY”), KeySpan Gas East Corporation d/b/a National Grid (“KEDLI”), and Niagara Mohawk Power Corporation d/b/a National Grid (“Niagara Mohawk”),

The NY LDCs appreciate the effort of the New York State Department of Public Service (DPS) through this initiative to develop and propose changes to Operator Qualification (OQ) requirements. This effort will enhance public safety and help facilitate overall competency of the workforce. NY LDCs fully support the intent of proposed regulations which underpin our parallel goals of maximizing competency of our workforce while minimizing the unintended negative consequences human factors play in day-to-day operations. NY LDCs also appreciate the opportunities to engage with DPS Staff (Staff) through virtual meetings³ on May 7th and May 25th. These discussions provided operators with clarity regarding the intent of specific proposed code sections and provided a collaborative forum to discuss alternative approaches which would achieve the intended goal while addressing practical concerns associated with implementation of the proposed rule changes. In this spirit, we respectfully offer several comments relative to certain proposed code sections.

General Comments:

1. NY LDCs' Commitment to Continuous Improvement of OQ Programs

NY LDCs support Staff's interest in improving Operator Qualification in New York. To that end, NY LDCs have made and continue to make significant program enhancements to their OQ Programs, many of which address issues highlighted in the NYS DPS OQ White Paper and this rulemaking. These concerted efforts commenced in 2017 and have continued in earnest since then, addressing many of the issues discussed during the NYS DPS OQ technical conference in October 2017. NY LDCs individually and collectively, through NGA, have made significant investments in these training and qualification program enhancements, which we believe illustrates NY LDCs' alignment with the intent of the proposed rule as well as the continuous, rigorous, and ongoing efforts by NY LDCs to improve OQ Programs. NY LDCs hope to convey our commitment to working cooperatively with Staff to incorporate these enhancements into forthcoming OQ requirements. A summary of these ongoing OQ Program enhancements can be found in Exhibit C.

2. Operational Ownership

NY LDCs are aligned with Staff in recognizing the importance for operators in having responsibility and control over their OQ Program and its alignment with unique company processes, procedures, specifications, equipment and materials of construction. To that end, NY LDCs have been working collaboratively with NGA to develop flexibility in OQ models which enable leveraging the collaborative work of regional operators in training and qualification relative to fundamental knowledge and core skills while encouraging and providing operators with the flexibility to integrate company-specific training and assessments, where appropriate.

Furthermore, the NGA collaborative framework facilitates a forum for "leading practice"-type discussions, which Staff encourages - learning from each other's experiences while maximizing

³ Presentation material utilized in the utility stakeholder meetings with DPS staff on May 7th and 25th, 2021 are included herein as Exhibits A and B, respectively.

the effectiveness and efficiency of program implementation. The NGA Core OQ Program was developed in this collaborative manner by operators leveraging their collective expertise and experiences across the region. The common use of the NGA Core OQ Program and framework as the basis for company specific OQ Programs also creates efficiencies in program development and administration. Just as important, it facilitates continuous improvement discussions and opportunities, which is one of the underlying elements of adopting an effective Pipeline Safety Management System. Over the years, member utilities have used the core OQ framework to align procedures and processes to an industry standard, which further allows for the core Program usage. Utilization of a common baseline OQ framework and covered tasks also enables the efficient use of mutual aid resources - when called upon - for those commonly leveraged tasks. This is especially true for the smaller and municipal operators. As more fully addressed below, there is little to be gained by a municipal operator with a handful of staff independently creating programs from scratch, especially when time-tested, industry-developed frameworks are available.

For the contractor community, which represents approximately 50% of the NY workforce, the use of the NGA Core OQ Program, supplemented with company specific program requirements, creates efficiencies in the training and qualification process, thereby enabling the flexibility of the contractor workforce to meet the growing demands of regional operators. The fit-for-purpose use and adoption of the NGA Core OQ Program as a common OQ framework for addressing fundamental knowledge and core skills - while also enabling this framework to be supplemented with company specific training and evaluations, as appropriate - is a model for the industry to consider. In our view, this model leverages the benefits of collaboration, allows for the sharing of leading practices, and addresses both fundamental and company specific knowledge/skills, while also creating efficiencies and allowing for the flexibility of the contractor workforce.

3. Challenges to Small/Municipal Operators and Large Operators

Some of the requirements in the proposed code sections will be especially challenging for small and municipal operators as well as large operators. Small and municipal operators have very limited staff and financial resources that may impact their ability to implement some of the proposed requirements. On the other hand, large operators with a large employee and contractor base face challenges of coordination and scheduling of training. NY LDCs recommend that Staff consider the challenges faced in this regard and examine potential exemptions, grandfathering and/or other conformance options, where it makes sense, while allowing flexibility in implementation timeframes for new requirements (as may be necessary).

4. Implementation Timeline

As noted above, NY LDCs fully support the intent of the proposed regulations and have been working in earnest since 2017 to effect certain program changes. That said, the level of effort required to achieve and sustain arguably some of the most stringent standards within the U.S. with respect to OQ and training is significant and cannot be understated. We expand on this point later in this document with respect to proposed language for 255.604(c), but NY LDCs emphasize that an appropriate glidepath to achieve sustainable change must be considered.

We also note that many interdependencies exist in the requisite adoption and implementation projects which in some cases will limit the extent to which activities can be performed in parallel.

Notice of Proposed Rulemaking (NOPR) Code Section Comments:

The NY LDCs offer the following comments and recommendations relative to proposed code section changes within the NOPR. The LDCs' proposed deletions are in red strikethrough text and the LDCs proposed additions are in red underlined text.

Definition of a Covered Task:

255.3 Definitions

(a) As used in the Part:

(10) Covered tasks are all activities, identified by the operator, that:

- (i) are performed on a pipeline facility; and
- (ii) affect the operation or integrity of the pipeline.

Discussion: The proposed definition of a covered task is significantly broader than existing code requirements, in that covered tasks will no longer be limited to those tasks that are performed as a requirement of 16 NYCRR Part 255 or be limited to operations and maintenance activities. NY LDCs are aligned with the intent of expanding the scope of operator qualification programs and note that NY LDCs currently exceed federal and state requirements in that construction activities are considered covered tasks. The proposed definition, however, is ambiguous and could be subject to potential inconsistent enforcement interpretation, and, as a result, NY LDCs propose clarification to this definition.

The removal of "are performed as a requirement of this part" from the definition of covered tasks makes the term "pipeline facility" overly broad for the definition of a covered task. 16 NYCRR 255.3 defines pipeline facility as "new and existing pipeline, rights-of-way, and any equipment, facility, or building used in the transportation of gas or in the treatment of gas during the course of transportation." Use of the term *pipeline*⁴ is consistent with the intent of this change as it limits the scope of a covered task to activities performed on a *pipeline*. The use of the term *pipeline* is also consistent with stakeholder discussions with Staff in that the expanded scope of a covered task would include pipeline construction and fabrication of pipeline assemblies intended for installation by operator or contractor personnel but would exclude commercial shop fabrication of pipeline assemblies by manufacturers for installation by others, as these are not connected to the pipeline by the fabrication contractor. Similarly, personnel conducting shop/bench testing of pipeline equipment (e.g., meters, regulators, instrumentation, etc.) remote from the pipeline would not be subject to operator qualification requirements as the work is not performed on the *pipeline* or on equipment while attached to the *pipeline*.

⁴ 16 NYCRR 255.3 (a) (37) Pipeline means all parts of those physical facilities through which gas is transported, including pipe, valves, and other appurtenances attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies.

The term *operation* is vague and may be subject to interpretation. Use of the terms *safety and integrity* or *operational safety and integrity* are consistent with the intent of the OQ Rule, which is to establish a qualified workforce and reduce the probability and consequence of incidents caused by human error. NY LDCs also note that ASME B31Q, the industry standard for qualification of pipeline personnel, includes definitions that are equivalent in intent to that proposed in this rulemaking, but offers additional clarity. The definitions from ASME B31Q are as follows:

- ***covered task***: *task that can affect the safety or integrity of the pipeline, with the following exceptions:*
 - (a) *design or engineering tasks;*
 - (b) *tasks that are primarily intended to ensure personnel safety*

- ***safety or integrity***: *the state of a pipeline being operationally sound (as affected by maintenance, construction, and operation activities) or having the ability to withstand the stresses imposed during operations.*

NY LDCs believe the following recommendations are aligned with the May 25th stakeholder discussion with Staff and the above comments.

Recommendation: Revise 255.3(a)(10)(i) and 255.3(a)(10)(ii) as follows:

- (10) Covered tasks are all activities, identified by the operator, that:
- (i) are performed on a pipeline **facility**; and
 - (ii) affect the **~~operation~~ operational safety** or *integrity* of the pipeline.

NY LDCs also recommend adopting the B31Q definition of safety or integrity, as described above, in 255.3.

Covered Tasks and AOCs:

255.604(a) Each operator shall have and follow a written qualification program. The program shall include provisions that:

- (1) Identify covered tasks and abnormal operating conditions on the operator's system with sufficient specificity to that system;

Discussion: While NY LDCs understand the intent to promote operational ownership of potential asset specific abnormal operating conditions (AOCs)⁵, the proposed language is broad in scope and may result in interpretation issues while conducting enforcement audits. API

⁵ 16 NYCRR 255.3 (a) (2) 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 indicate a condition exceeding design limits or result in a hazard(s) to persons, property, or the environment.

Recommended Practice for Pipeline Operator Qualification 1161, Section 5.2.7 Abnormal Operating Conditions (AOC), provides alternate language which addresses the intent of the DPS proposal by requiring an operator to assess program tasks and associated operating procedures to verify that appropriate asset or work practice specific AOCs are incorporated.

Additionally, during the stakeholder meetings, Staff provided guidance to operators that a strict interpretation of the definition of an AOC, as defined in Part 255, should be followed. NY LDCs have historically, in an abundance of caution, exceeded the requirements of Part 255 by including certain substandard conditions as AOCs, even though the identified condition may not truly meet the criteria of the AOC definition. Staff acknowledged the merits of this approach but advised that the more stringent Part 255 definition of an AOC be followed given the AOC testing requirements proposed in Part 255.604(a)(3)(iv). Operators were advised to consider a second category of conditions or concerns that could be included in an operator's program but would not be subject to the proposed AOC testing requirements noted above. In addition, guidance around the identification of AOCs as opposed to substandard conditions would be beneficial to operators and would provide consistent application across all NYS operators. The recommended language below provides additional clarity on this topic.

Recommendation: Revise 255.604(a) as follows:

(1) Identify covered tasks including analysis to identify abnormal operating conditions that may indicate a malfunction of a component or deviation from normal operations that may indicate a condition exceeding design limits or result in a hazard(s) to persons, property, or the environment; and ~~abnormal operating conditions on the operator's system with sufficient specificity to that system;~~

Training Requirements:

255.604(a)(2) Detail the training requirements, including the minimum training needed per covered task, to ensure that each individual performing a covered task is provided the knowledge and skills to be qualified and requalified, when necessary, prior to the individual performing the covered task. Training shall include hands-on learning or simulations;

Discussion: NY LDCs recognize the importance of training in developing the competency of personnel. NY LDCs note that approaches and methods to training vary significantly and that flexibility in training program design and implementation is necessary. For example, training is typically structured around title progressions and/or job functions versus individual covered tasks. It also should be noted that training modules typically cover numerous covered tasks combined (*i.e.*, not a 1:1 ratio).

NY LDCs also note that not all covered tasks require hands-on learning. For example, inspection type work (inspect ROWs, visual inspection/condition of pipe, etc.) can utilize pictures and videos, during classroom sessions, as effective training methods. To this point, the Gas Piping Technology Committee Z380 (GPTC) Guidance, §192.825(h), Section 2.8 Training,

stipulates that training may be delivered through methods such as classroom or computer-based instructions, simulation exercises, and on-the-job training (OJT).

Additionally, training for requalification is not always required, depending on many factors including the frequency that a task is performed, complexity of the task, skill requirements, etc. Qualified employees are presumed to already have the fundamental knowledge, core skills, ability and experience performing the same work on a regular basis. Training prior to the requalification process is typically in the format of informal refresher training which is an abridged version of the knowledge and/or hands-on training components and is provided at the discretion of the operator or contractor based on the needs of the individual. In many cases where the individual is performing the task on a frequent basis, there may be no need for refresher training. Broad requirements that imply that formal training, equivalent in scope and content of initial training, should be required in all cases prior to requalification are of limited technical benefit and would not significantly enhance public safety value.

Furthermore, certain training programs may continue after an individual is qualified (*i.e.*, on-the-job training may take place before or after an individual is qualified). The proposed language implies that OJT must be conducted prior to qualification.

Based on the discussions at the stakeholder meetings, NY LDCs are aligned with the intent of this code section in that training programs would encompass the requisite covered tasks and would ensure that individuals receive the required initial training but would not dictate how the training is conducted. In this spirit, NY LDCs offer the following recommendations.

Recommendation: Revise 255.604(a)(2) as follows:

255.604(a)(2) Detail the training requirements, including the minimum training needed ~~per covered task for initial qualification~~, to ensure that each individual performing a covered task is provided the opportunity to gain the knowledge and develop skills necessary for qualification, ~~prior to the individual performing the covered task. Training for requalification, where applicable, shall be stipulated by the operator.~~ Training ~~shall~~ may include classroom or computer-based instructions, simulation exercises, on-the-job training, and hands-on learning ~~or simulations~~. Initial training should include hands-on learning, where appropriate.

Evaluation Requirements:

255.604(a)(3) Ensure through evaluation that each individual performing a covered task has gained the knowledge and skills needed to perform the covered task according to the operator's procedures and on the type of equipment used by the operator for the task for which the individual is deemed qualified provided that:

Discussion: NY LDCs recognize that evaluations should be performed using the equipment and procedures specified by the operator. That said, NY LDCs note that the proposed language relative to equipment is ambiguous and subject to interpretation. As such, we recommend that

operators should incorporate a process in their OQ Plan for determining when a unique evaluation is required for company specific process and/or specialty equipment.

Recommendations:

Add a new subsection under 255.604(a) as follows: 255.604(a)(new subsection) Identifies a process for determining when a unique evaluation is required based on the characteristics of the equipment or process being performed.

Revise 255.604(a)(3) as follows: 255.604(a)(3) Ensure through evaluation that each individual performing a covered task has gained the knowledge and skills needed to perform the covered task according to in accordance with the operator's procedures and on the type of equipment used by the operator for the task for which the individual is deemed qualified provided that:

Performance Evaluations:

255.604(a)(3)(ii) performance evaluations shall not be conducted within 48 hours of training;

Discussion: Delaying a written examination based on a pre-determined timeframe after training may help to establish that an individual has adequately retained knowledge from the training; however, it is not clear that there is any benefit in delaying performance evaluations to a minimum of 48 hours after training. Performance evaluations predominantly validate that an individual has the requisite skills and abilities to perform the task. Skills are developed over time with practice and abilities are inherent to each individual. In this context, there is limited public safety value in restricting performance evaluations from being conducted within 48 hours of training. This is especially true with requalification of personnel in that refresher training predominantly focuses on refreshing the knowledge required to perform a task, as the individual performs the task on an ongoing basis.

With respect to requalifications, refresher training may be provided on an abbreviated annual schedule. A 48-hour wait period will extend the retraining and requalification cycle per individual by several days and introduce extreme complexity into the scheduling process. Logistical issues become more challenging for operators in remote areas if the training center is located several hours away from the individual's normal reporting location. Incremental costs will also be incurred for overnight stays. Additionally, there is typically limited hands-on training provided with refresher training, unless specifically warranted. For large operators, it is estimated that this requirement will extend refresher training and requalification by at least three months and may create compliance risk for requalification of individuals within applicable requalification intervals.

Recommendation: Revise 255.604(a)(3)(ii) as follows:

255.604(a)(3)(ii) performance written evaluations shall not be conducted within 48 hours of training;

AOC Questions:

255.604(a)(3)(iv) A passing grade on a written test shall not be awarded if the individual answered any question about abnormal operating conditions incorrectly.

Discussion: The NY LDCs' written evaluations are designed to be challenging, to assess the breadth and depth of knowledge on the subject (inclusive of AOCs), and to help evaluate the competency of the individual. Many of the fundamental knowledge questions are equally or more important in terms of operational safety and integrity than some AOC questions. Currently, many written evaluation questions could be construed as both core knowledge questions as well as an AOC topic. To designate all AOC questions as critical fail items would outweigh the significance of some AOC items compared to the broader knowledge domain for a given task. Given the nature and scope of these evaluations, we believe that the use of an 80% pass rate for an exam as a whole remains appropriate. This passing standard is typical across many industries and professions, including safety critical areas such as engineering, medical, etc. We are concerned that the establishment of a 100% pass rate on all AOC questions creates an unachievable standard, particularly since NY LDCs, out of an abundance of caution, are typically more conservative in including a broader group of substandard conditions in addition to the traditional scope of AOCs.

In addition, the online examination process utilized by NY LDCs incorporates a systematic review of incorrectly answered questions upon successfully passing an exam. The intent of this review is to verify that an individual who meets or exceeds the passing standard for an exam knows which questions he/she answered incorrectly and understands the correct response to those questions. This review occurs immediately upon completion of the exam and includes all incorrectly answered questions (not just AOC related questions) so that an individual is fully aware of all proper responses before performing the covered task. This measure acts as a safeguard to enhance knowledge of covered tasks, including AOCs.

Furthermore, a closed book written evaluation setting should not be construed as a real-life scenario, related to the recognition of and reaction to AOCs. NY LDCs encourage all personnel to have a questioning attitude when performing work. If unsure of a necessary step, many resources and layers-of-protection are provided and expected to be utilized, including use of pre-job safety briefs where job specific AOC's are discussed, procedure and field guide references, as well as calling a supervisor for guidance. Therefore, an incorrect written examination question response should not be correlated to the likelihood of an AOC being incorrectly identified or responded to in the field.

Fear of poor test performance can lead to test anxiety and the introduction of critical fail questions will increase that fear, leading to higher failure rates for reasons not related to the test taker's knowledge of the subject being assessed. Additionally, while NY LDCs have significantly increased security of their testing facilities, the critical fail approach could lead to undesirable behavior on the part of examinees in an attempt to pass required exams. It is well known that high-stakes testing (e.g., critical fail questions) increases the likelihood of unethical behavior.

Written evaluations are not suited for critical fail AOC questions. We are not aware of any major credentialing organization or agency, within or beyond the natural gas industry, that utilizes critical fail questions in scoring or interpreting the results of written examinations. By contrast, the critical fail approach is relatively well established for performance evaluations, the most notable example being vehicle driving tests required for obtaining a state driver's license.

Performance evaluations may be better suited for a limited number of critical fail AOC questions. Practical exams already require an individual to successfully meet 100% of all criteria in order to pass. It is conceivable that AOCs be further defined as described below and risk-weighted with critical fail questions incorporated within practical exams focused on high-risk/consequence AOCs. The placement of critical fail questions within the practical exam would help ensure the scenario/question being asked is clear to the examinee as an evaluator would ask the question and could clarify or probe further if required.

While all AOCs are important in terms of being recognized and reacted to, they are not equal in risk severity and potential consequences. This is recognized in ASME B31Q where Appendix G utilizes a rating scale to determine the Importance of a task. Importance is judged in terms of the consequences of inadequate performance. Likewise, NGA and NY LDCs have adopted this approach. The NGA OQ Written Plan includes a rating of Risk/Consequence of Improper Performance for each task. The most severe Importance rating as defined by ASME B31Q is as follows: *Importance Rating 4 (High Risk/Consequence): Improper performance of the task may result in an abnormal operating condition while the task is being performed that is a hazard to persons, property, or the environment, or in a reportable condition.* NY LDCs recognize that tasks with a high risk/consequence rating, as defined above, may warrant the use of critical fail AOC questions, during practical examinations.

As these comments indicate, NY LDCs are not supportive of normalizing risk/consequences of AOCs and the concept that all AOC questions must be critical fail questions in written exams. We believe the approach and measures currently employed relative to the broader use of the term "AOCs" associated with low and medium risk/consequence ranked covered tasks are prudent, sufficient, and a best practice. NY LDCs believe that the applicability of critical fail AOC questions should be limited to those tasks with a risk/consequence rating of "high," as these safety sensitive tasks and AOCs warrant this incremental measure. We also recommend that this critical fail question concept be incorporated into practical evaluations (versus written evaluations). This fit-for-purpose approach to the use of critical fail questions will enhance public safety and limit the potentially significant unintended consequences associated with the widespread use of critical fail questions.

This topic was discussed during the stakeholder meetings. Staff provided guidance to operators that the strict definition of an AOC, as defined in Part 255, should be followed. NY LDCs have historically, reflecting an abundance of caution, exceeded the requirements of Part 255 in the inclusion of certain substandard conditions as AOCs, even though the identified condition may not truly meet the criteria of the AOC definition. Staff acknowledged the merits of this approach

but advised that the more stringent Part 255 definition of an AOC be followed and that operators consider a second category of conditions or concerns that could be included in an operator's OQ program but would not be subject to the proposed AOC testing requirements proposed here.

To this point, NY LDCs note GPTC guidance, §192.803, Section 1.1, which reads as follows:

1.1 Incorporation of conditions in task competency requirements.

Conditions that are included in the basic competency requirements for a particular task need not be considered abnormal operating conditions for that task. This is illustrated by the following examples.

- (a) If an operator identifies leak surveys as a covered task, the discovery of a leak need not be considered an abnormal operating condition for the individual performing this task. Finding leaks is an objective of the given task and the individual performing the task is expected to understand how to identify and respond to leaks.*
- (b) If monitoring cathodic protection systems using electrical surveys is a covered task, finding a low pipe-to-soil reading need not be considered an abnormal operating condition. To find such readings is an objective of the task, and the individual performing the task is expected to understand how to identify and respond to such conditions.*

Additionally, API Recommended Practice for Pipeline Operator Qualification 1161, Section 5.2.7 Abnormal Operating Conditions (AOC), provides additional guidance regarding the identification of AOCs. API recommends an analysis of the covered task procedure to identify any steps that, if performed incorrectly, could lead to a release, overpressure, or other potentially hazardous condition.

NY LDCs believe an approach for evaluation of AOC knowledge for a discrete set of truly high risk/consequence tasks utilizing the strict definition of a covered task in Part 255 in conjunction with the AOC guidance noted in GPTC and API 1161 within the confines of a performance evaluation may provide the highest degree of pipeline safety value. Additional conditions or areas of concern that do not rise to the criteria noted above could be identified and incorporated into evaluations as deemed appropriate by the operator.

Recommendation: Revise 255.604(a) as follows:

255.604(a)(3)(iv) A passing grade ~~on a written test~~ shall not be awarded for high risk/consequence covered tasks if the individual incorrectly answered any question about abnormal operating conditions that would result in a hazard(s) to persons, property, or the environment incorrectly.

Evaluation Methods:

255.604(a)(3)(v) Observation of on-the-job performance is not used as a sole method of evaluation. However, when on-the-job performance is used to complete an individual's competency for a covered task, the operator qualification procedure must define the measures

used to determine successful completion of the on-the-job performance evaluation and shall be evaluated by individuals qualified to perform that task on the operator's system.

Discussion: NY LDCs utilize various evaluation methods in determining competency of an individual to perform a covered task. These include:

- a) Written examination – typically an online evaluation administered in a computer-based testing environment
- b) Oral examination
- c) Performance simulation or demonstration
- d) Other forms of assessment, which may include a combination of the above options (i.e., a combined performance demonstration and oral examination).

This approach is in accordance with federal requirements as stipulated in CFR Part 192.803, in addition to API Recommended Practice 1161 and ASME B31Q, Recommended Practice for Pipeline Operator Qualification. Performance simulation or demonstrations may be conducted in a simulated environment (e.g., training/operating center environment) or while performing work on the system. As with any performance evaluation, on-the-job performance evaluations follow the operator's qualification procedure with defined measures used to determine successful completion. In this context, clarity is requested surrounding the intent of limiting on-the-job performance as a sole method of evaluation. Based on stakeholder meeting discussions, NY LDCs believe there is a need to differentiate between passive observation as an on-the-job performance evaluation versus an interactive assessment, in accordance with company defined evaluation processes and criteria.

Additionally, there are a number of scenarios where an evaluator may not be formally qualified to perform that task on the operator's system. Examples include utilizing an inspector or independent third party knowledgeable in the covered task and the operator's procedures, but not necessarily qualified to perform the task; or utilizing an individual with the knowledge and experience to evaluate the covered task, but no longer physically able to perform the covered task. In these cases, span of control requirements for direct observation by a person qualified to perform the covered task would be adhered to, but this does not necessarily mean that the evaluator must be operator qualified (i.e., a qualified individual may be on site to meet span of control requirements in addition to a company authorized evaluator).

Recommendation: Revise 255.604(a)(3)(v) as follows:

255.604(a)(3)(v) ~~Observation of on-the-job performance is not used as a sole method of evaluation. However, w~~When on-the-job performance is used as an evaluation method to complete an individual's competency for a covered task, the operator qualification procedure must define the measures used to determine successful completion of the on-the-job performance evaluation. Span of Control requirements shall be followed during on-the-job performance evaluations. and shall be evaluated by individuals qualified to perform that task on the operator's system.

Re-evaluation Process:

255.604(a)(6) Evaluates an individual if the operator has reason to believe that the individual did not correctly perform a covered task, or if the individual's performance of a covered task contributed to an incident requiring the submission of a report pursuant to 255.801(d), or is otherwise significant in the judgment of the operator.

255.604(a)(7) Evaluates an individual if the operator has any reason to believe the individual is no longer qualified to perform a covered task.

Discussion: NY LDCs agree with the intent that an individual should be re-evaluated if there are indications that the individual did not perform a task appropriately, which contributed to an incident or other event. Operators should develop policies for dealing with observed performance deficiencies and applicable responses for such observations and incorporate these policies into the operator's written plan.

While the intent of these proposed changes align with current practices, the language between (a)(6) and (a)(7) can be interpreted to be in conflict. Subsection (a)(6) speaks to the requirement to evaluate an individual any time they did not perform a covered function correctly (implying an automatic disqualification requirement), whereas subsection (a)(7) allows for a more flexible approach to requalifying if there is reason to believe the individual is no longer qualified to perform a covered task.

Recommendation:

Insert new subsection under 255.604(a) as follows: 255.604(a)(new section) Detail a process to address performance deficiencies and actions from such observations. Actions may include retraining, coaching, reevaluation, suspension or disqualification of qualifications, in accordance with the operator's policy.

Revise 255.604(a)(6) as follows: 255.604(a)(6) Evaluates an individual if the operator has reason to believe that ~~the individual did not correctly perform a covered task, or if~~ the individual's performance of a covered task contributed to an incident requiring the submission of a report pursuant to 255.801(d), or is otherwise significant in the judgment of the operator.

Training Programs:

255.604(a)(10) Provide training to ensure that any individual[s] performing covered tasks has the necessary knowledge, skills, and abilities to perform the tasks in a manner that ensures the safe operation of pipeline facilities;

Discussion: While appropriate task related training is an integral component of establishing competency, it is important to note that the term "training" is often used incorrectly in reference to evaluation and qualification. Training is the act of facilitating the learning, development and improvement of new and existing knowledge and skills and not the evaluation or qualification of those knowledge and skills. It is important that the training is *appropriately* "fit for purpose" and addresses operator specific requirements.

Additionally, NY LDCs emphasize the investment being made by LDCs and contractors in training programs and facilities. One operator's gas competency training recently concluded a three-year, multi-million-dollar transformation. All content has been updated, provided with automatic links to procedures, standards, and work methods. Training content also reflects the tools, equipment, system components, etc. being utilized. Significant enhancements to training programs, such as described here, take time and resources to implement.

Recommendation: Revise 255.604(a)(10) as follows:

255.604(a)(10) Provide training, as appropriate, to ensure that any individual[s] performing covered tasks have the necessary knowledge, skills, and abilities to perform the tasks in a manner that ensures the safe operation of pipeline facilities.

Supplemental Training:

255.604(a)(8) Establishes and maintains a Management of Change program that will communicate significant changes that affect covered tasks to individuals performing or within the span of control for those covered tasks;

(i) the operator will determine what constitutes a significant change.

(ii) the operator shall determine whether, and which, changes require suspension of operator qualification and requalification due to the change.

255.604(a)(11) Provides supplemental training for individuals when procedures and specifications are changed for the covered task;

Discussion: NY LDCs agree with the intent of these proposed code sections and recognize that a management of change (MOC) process should address the need for communicating changes in work methods, policies, procedures, tools, and materials commensurate with the complexity of the identified change. However, procedural changes do not always warrant retraining of personnel. At times, simply communicating the change is sufficient (e.g., an announcement that an operator will no longer use a specific component). The proposed language implies that supplemental training is a requirement of all changes to procedures and specifications. Implementation of such changes are typically addressed through a company specific MOC process, which incorporates, but is not limited to, OQ and training considerations. This decision should rest with the operator as defined in a company specific MOC policy.

Recommendation: Revise 255.604(a)(8) and 255.604(a)(11) as follows:

255.604(a)(8) Establishes and maintains a Management of Change (MOC) process component of the OQ Written Plan program, as appropriate and consistent with a company specific MOC Policy, that addresses significant changes in procedures, specifications, tools, materials of construction, and technology that affect the training and qualification process, as determined by the operator: ~~that will communicate significant changes that affect covered tasks to individuals performing or within the span of control for those covered tasks:~~

~~(i) the operator will determine what constitutes a significant change.~~

(ii) the operator shall determine whether, and which, significant changes require suspension of operator qualification and requalification due to the change.

(ii) the operator shall determine what supplemental training is required for individuals when such significant changes affect the covered task.

~~255.604(a)(11) Provides supplemental training for individuals when procedures and specifications are changed for the covered task;~~

Mutual Aid:

255.604(a)(13) Includes a Mutual Aid training and evaluation plan. Operator contingencies must be in place for the use of outside operator qualified resources when the operator is responding to events that exceed in-house capabilities.

Discussion: NY LDCs support the intent of this proposed code section and agree that mutual aid personnel need to be qualified in the tasks they perform, and competent to perform the tasks in accordance with the operator's requirements. During response to events requiring mutual assistance, operators should evaluate and, if appropriate, accept "task equivalent" OQ credentials of the operators providing mutual assistance contingent upon the operator providing "site arrival training" for mutual aid personnel. The acceptance of task equivalency aligns with OQ program acceptance, as described in PHMSA OQ FAQs 1.3, 1.4, 1.6, and 1.8. The arrival training would address the operator's company-specific procedures, materials, and equipment, as applicable, for the work that is to be performed by mutual aid responders. Operators who adopt this approach should include these provisions within their OQ Written Plan and Emergency Response Plan. This approach allows operators the flexibility to enlist support services quickly and efficiently during emergency events, while ensuring the competency of the individuals providing mutual aid assistance and ensuring the Company's operating procedures are effectively communicated and followed.

Additionally, NY LDCs agree that emergency response planning should include the identification of covered tasks commonly required during mutual aid events along with the development of a process to validate the equivalency of qualifications from mutual aid responders and the development of associated site arrival training.

NY LDCs believe the language proposed below provides the needed clarity, flexibility and safeguards required for emergency situations requiring mutual aid.

Recommendation: Revise 255.604(a)(13) as follows:

255.604(a)(13) Includes ~~a Mutual Aid training and evaluation plan.~~ provisions for the use of outside operator qualified resources when the operator is responding to events that exceed in-house capabilities. Mutual aid provisions should establish a process to verify that all individuals performing covered tasks pursuant to mutual assistance agreements hold qualifications deemed equivalent by the operator and have received training on applicable company-specific procedures. Supplementary training covering company specific procedures may be addressed as part of a company defined mutual aid site arrival training process. ~~Operator contingencies must be in place for the use of outside operator qualified resources when the operator is responding to events that exceed in-house capabilities.~~

Engineering Tasks:

255.604(a)(15) Identifies engineering tasks;

255.604(a)(16) Includes the training and evaluation process to be used for personnel performing engineering tasks, specific to the design, construction, operation, and integrity of pipelines.

Discussion:

NY LDCs are aligned with the intent of this proposed code section and recognize the important role that competent engineers play in ensuring pipeline safety. While on the surface the Operator Qualification framework may seem like a logical solution to ensure design review competency, the OQ framework does not lend itself to the significantly different competency requirements of natural gas system engineering and design review. This is specifically noted in ASME B31Q in the discussion of a covered task. ASME B31Q stipulates:

With the following exceptions, this Standard applies to tasks that impact the safety or integrity of pipelines:

a) design or engineering tasks

Even by existing or proposed definitions of Part 255, a covered task does not encompass the broad scope of engineering functions. OQ is task and procedure oriented, and performance based. Engineering involves the application of a variety of design concepts and the strategic integration of these concepts and theory as related to constructability and operability of the design. As a result, competency development and demonstration of engineering design review principles requires very broad knowledge and skills as well as system specific knowledge which often requires the technical review and input of multiple SMEs.

Given NTSB's recommendation following the Merrimack Valley incident relative to the engineering plan and constructability review process, NGA, NY LDCs, and LDC engineering SMEs have developed fit-for-purpose guidelines for Gas System Engineering Design Review. The guideline provides a framework for operators to define the education and experience requirements for engineering personnel, outline the design review and approval process for both standard (e.g., distribution mains and services) and non-standard (e.g., M&R stations, transmission facilities) design and construction drawings, define a management of change process, and include practical design and construction review checklists based on asset types. This guideline is intended to provide a flexible and scalable review framework, with essential principles applicable to all pipeline operators, from large to small. This guideline is intended for operators to adopt essential elements and amend them accordingly based on their specific assets and unique operating environments.

NY LDCs recommend that requirements for engineering tasks and the engineering design review process be omitted from Operator Qualification code sections. Operators should consider the merits of a company specific engineering design review process policy. If

warranted, a stand-alone code section relative to engineering competency development and the engineering design review process may be considered.

Recommendation: Delete sections 255.604(a)(15) and (16) in their entirety.

~~255.604(a)(15) Identifies engineering tasks;~~

~~255.604(a)(16) Includes the training and evaluation process to be used for personnel performing engineering tasks, specific to the design, construction, operation, and integrity of pipelines.~~

Training Records:

255.604(b)(1)(vii) Training that took place to support the individual's qualification or requalification for each covered task.

Discussion: As noted previously, NY LDCs agree with the intent of this proposed code section and recognize the importance of training in developing the competency of personnel. Appropriate training is required to establish that individuals performing covered tasks have the knowledge and skills needed to perform the tasks. Such training should be incorporated in practices leading to the development, career progression, competency, and qualification of new employees, as well as practices that refresh the knowledge and skills of individuals with considerable experience. It is an Operator's responsibility to provide training to develop the competency necessary to perform covered tasks on the operator's unique pipeline system.

However, the retention of training records to support qualifications is a significant challenge. Methodologies and systems will need to be developed to link specific OQ covered tasks to existing company specific training documentation processes and systems. Additionally, training records typically reside with the employer. Many individuals change employers throughout their careers; this is especially true for contractors. These individuals have the requisite experience and competency to perform the covered task but may not have access to their initial training records. This new requirement to retain and link training records to qualifications throughout an individual's career sets new expectations regarding portability of training records for operators and contractors. Discussions with Staff during stakeholder meetings indicated that the intent of this provision is for operators to verify, on a going forward basis, that training requirements have been completed and that the training verification record could be as simple as an affidavit that operator required training requirements have been met. NY LDCs agree with this intent and propose language to provide clarity around this approach. NY LDCs also note, that with regard to contractors, provisions for training record keeping requirements will need to be reviewed and negotiated with each service provider during contract renewal events, which are typically three or more years in duration.

In addition, as noted previously, training for requalification is not always required, dependent on many factors including the frequency that a task is performed, complexity of the task, skill requirements, etc. Furthermore, when training for requalification is provided, it is often conducted less formally than initial training and therefore record retention associated with requalification is more difficult.

Recommendation: Revise 255.604(b)(1)(vii) as follows:

255.604(b)(1)(vii) As of (insert effective date) ~~¶~~training that took place to support the individual's initial qualification ~~or requalification, as appropriate,~~ for each covered task. Training records may include a training affidavit or attestation by the company, in lieu of detailed training records, provided the individual has demonstrated knowledge, skill and ability that would result from completion of such training as defined by an operator's policy.

Span of Control and On-the-Job Training Records:

255.604(b)(2)(i) Records shall be kept and made available for audit for work completed by a non-qualified individual while being directed and observed by a qualified individual. This documentation can be used to verify on-the-job training.

Discussion: On-the-job training (OJT) is used by many operators and has proven to be an effective training tool. OJT is commonly and intentionally used with span-of-control to develop individuals under the direct oversight of experienced and qualified employees. The continued and effective utilization of on-the-job training should be considered when contemplating span-of-control requirements. NY LDCs also note that, in general, the qualifications carried by most operating personnel has expanded over the years, thereby reducing the frequency in which span-of-control is utilized.

NY LDCs are concerned that the record keeping requirement with regard to instances where non-qualified individuals perform work on the pipeline while being directed and observed by a qualified individual may require significant expenses to develop or enhance work management systems with linkages to operator qualifications systems. Accountability for adherence to span-of-control requirements and overall quality of the work performed resides with the crew chief (or equivalent position/title). The challenge presented here is not compliance itself but rather documentation and information systems to support compliance, for the purposes of an audit.

LDC work management systems capture the work function performed, assets installed/retired, work crew, date of work performed, and many other parameters based on the work performed. That said, work management systems are not designed or configured to track work performed at the discrete covered task level. Note that a simple work function such as installation of a service may require 15 or more covered tasks to complete that one job. To meet this proposed records-keeping requirement, each covered task would need to be tracked as an independent sub-function within each and every work order. The functionality to accurately track this data simply does not exist and would require major information system enhancements of each operator's work management system, or the development of a new, likely disparate stand-alone system simply to track work performed under span-of-control. This potentially complex record keeping requirement will be extremely expensive and adds little value in terms of pipeline safety. To illustrate the potential expense associated with this requirement, one NY operator spent approximately \$5 million in the development and implementation of a similar system to track the specific requirements for plastic joining and inspection alone, which represents only

two of 80+ covered tasks. Above and beyond system considerations, if implemented, additional time constraints and administrative burdens would then be required of the individuals performing the work, who would now be required to record all unique instances of covered task performance, adding additional time and costs to all work functions.

Discussions with Staff during stakeholder meetings focused on a few key points. The first is that Staff recognizes that not everyone on a crew carries all the qualifications required to perform all aspects of work and that it is common for the crew chief or foreman to sign the required forms for the day's work. In these cases, operators need to be cognizant of documents being signed by someone who is not qualified to perform a covered task and document accordingly to designate that a qualified person completed each covered task. Secondly, if using on-the-job training as a component of the qualification process, then records of the on-the-job training are required. Finally, Staff emphasized the focus of this proposed rule was intended to cover those records which are currently being generated by operators and audited by Staff, and did not intend to require operators to create additional records.

Given these clarifications, NY LDCs recommend that alternative and simpler approaches to documenting span-of-control be considered that would not require major information system upgrades. For example, the crew chief (or equivalent) could attest that all work performed on a given project was done by a qualified person or performed in accordance with that operator's span-of-control requirements. Likewise, for OJT, there are alternative and simpler means to record this training. Simpler approaches, similar to those recommended here, will meet the intent of the code but we note that there may be limitations in terms of report generation capabilities to facilitate audits. We believe these approaches meet the intent of the proposed regulation and could be implemented more cost effectively.

Recommendation: Delete 255.604(b)(2)(i) in its entirety or revise as follows:
255.604(b)(2)(i) Documentation, required to be kept by this part Records for work completed under span of control shall be kept and made available for audit. ~~for work completed by a non-qualified individual while being directed and observed by a qualified individual. This documentation can be used to verify on-the-job training.~~

Program Effectiveness:

255.604(c)(4) Program Effectiveness. Operator Qualification programs shall include a written process to measure the program's effectiveness. An effective program minimizes human error caused by an individual's lack of knowledge, skills, and abilities (KSAs) to perform covered tasks.

Discussion: NY LDCs are aligned with the intent of this proposed code section to require operators to incorporate continuous improvement strategies into their OQ plans that assess lessons learned from exam data, near-misses, reportable incidents and other operationally focused root-cause analysis including training related causal actions.

NY LDCs note that significant work may be required for some operators to comply with this part and that the development and/or enhancement of existing program effectiveness plans will be required. In some cases, data capture/reporting systems will need to be put in place to capture and trend required metrics. Additionally, program implementation and management resources will be required.

Recommendation: NY LDCs recommend that appropriate conformance timeframes are considered in the adoption of rules that allow for the development and implementation of program effectiveness plans.

Evaluator Criteria:

255.604(c)(viii) Program records must include criteria used for selecting, training, and qualifying evaluators.

Discussion: NY LDCs support the establishment of criteria for selecting, training, and authorizing an individual to conduct performance evaluations. As noted previously, there are a number of scenarios where an evaluator may not be formally qualified to perform that task on the operator's system. Examples include utilizing an inspector or independent third party knowledgeable in the covered task and the operator's procedures, but not necessarily qualified to perform the task; or utilizing an individual with requisite knowledge and experience to evaluate the covered task, but no longer physically able to perform the covered task. This approach is also consistent with DPS Staff inspections as the DPS inspector does not need to be operator qualified to evaluate whether operator personnel performed a task in accordance with company procedures. Use of the term "qualifying evaluators" may be misconstrued to imply that evaluators must be formally qualified in the task to conduct evaluations. During the stakeholder meetings, Staff clarified that it is not the intent to require evaluators to be formerly qualified. NY LDCs propose language to clarify this point.

Recommendation: Revise 255.604(c)(viii) as follows:

255.604(c)(viii) Program records must include criteria used for selecting, training, and ~~qualifying~~ authorizing evaluators.

Clarification of Code Section Numbering:

255.604(c)
255.604(c)(3) Retention Periods
255.604(c)(4) Program Effectiveness

Discussion: There appears to be a discrepancy in the above referenced sections in terms of code section number and flow. NY LDCs request clarification of the following:

- 255.604(c)(i) through 255.604(c)(viii): To stay consistent with code section numbering format, it appears that Roman numerals (i) through (viii) should be numbered (1) through (8) respectively. Please clarify.

- 255.604(c)(3) Retention Periods: It is unclear if this section was intended to fall under 255.604(b), which addresses records, or if it was truly intended to fall under 255.604(c). If the latter, the code section number (3) would need to be revised. Please clarify.
- 255.604(c)(4) Program Effectiveness: It is unclear if this section was intended to fall under 255.604(a), which addresses written qualification programs, or if it was truly intended to fall under 255.604(c). If the latter, the code section number (4) would need to be revised. Please clarify.

Implementation Timeline:

255.604(c) Operators shall have a written qualification program consistent with the requirements herein and in effect by November 30, 2021 or within nine months of adoption of this rule for written program changes; changes to qualifications shall begin to be implemented nine months after written programs are changed.

Discussion: NY LDCs fully support the intent of proposed regulations with the goal of maximizing competency of our workforce and minimizing unintended negative consequences human factors play in day-to-day operations. NY LDCs emphasize the tremendous work effort, as outlined in Exhibit C, that has been put forth already to achieve this desired goal. That said, the scope of work required to transform NY Operator Qualification programs to meet proposed additional enhancements will be significant for all NY LDCs, some more so than others. Furthermore, there are many interdependencies in the requisite project tasks. These interdependencies, along with the need to engage key SMEs as part of multiple initiatives, limits the extent to which activities can be performed in parallel. We offer a general framework in Figure 1 below which illustrates three distinct phases of work and key milestones for implementation.

NY LDCs will need to evaluate the final requirements before a definitive estimate can be made regarding an implementation timeline. In all likelihood, there will be common initiatives that could be undertaken in a collaborative format and there will also be numerous initiatives that are company specific. Timelines to implement company specific components will vary depending on the scale of the company and their current status/progress towards achieving the desired end state.

Three phases of implementation have been developed. First is assessment and planning. During this phase, requirements will be analyzed, a gap analysis will be performed, and a project plan will be developed. At the completion of this phase, each operator will be able to provide a project plan and implementation timeline. The second phase will focus on the development of programmatic components (e.g., new covered tasks, new performance evaluations, modified written evaluations, company specific tasks/evaluations, company specific training requirements). Phase three will focus on a phased implementation of program components and requalification of existing personnel. NY LDCs plan to implement the new qualification requirements utilizing the established requalification intervals. As such, requalification of personnel utilizing the new criteria will occur over a three-year requalification period. Initial estimates of a timeline for implementation are as follows:

1. Phase 1: Assessment and Planning – 9 months
2. Phase 2: Development of Program Components – 12 months
3. Phase 3: Implementation & Qualification of Personnel
 - a. Phased Implementation – 9 months
 - b. Qualification/Requalification of Personnel – 36 months

The cost impact of implementing these requirements should not be underestimated. In many cases, operators will need to secure the funding required for these investments, which may impact their implementation timeline. As discussed during the utility stakeholder meetings, NY LDCs request confirmation that incremental compliance costs will be eligible for deferred rate recovery.

Recommendation:

255.604(c) Operators shall conduct a needs assessment and prepare an implementation plan ~~have a written qualification program~~ consistent with the requirements herein ~~and in effect by November 30, 2021 or~~ within 9 months of adoption of this rule. The plan shall identify proposed areas requiring revisions with associated milestones and timelines. Operators shall develop and implement requisite plan components consistent with the requirements herein within 21 months of adoption of this rule. Operators shall begin to implement ~~ed~~ changes to qualifications within 30 months of adoption of this rule. Unless otherwise stipulated by the operator, existing qualifications will remain valid until individuals requalify on that task, at which point the new qualification requirements will be in effect. for written program changes; changes to qualifications shall begin to be implemented 9 months after written programs are changed.

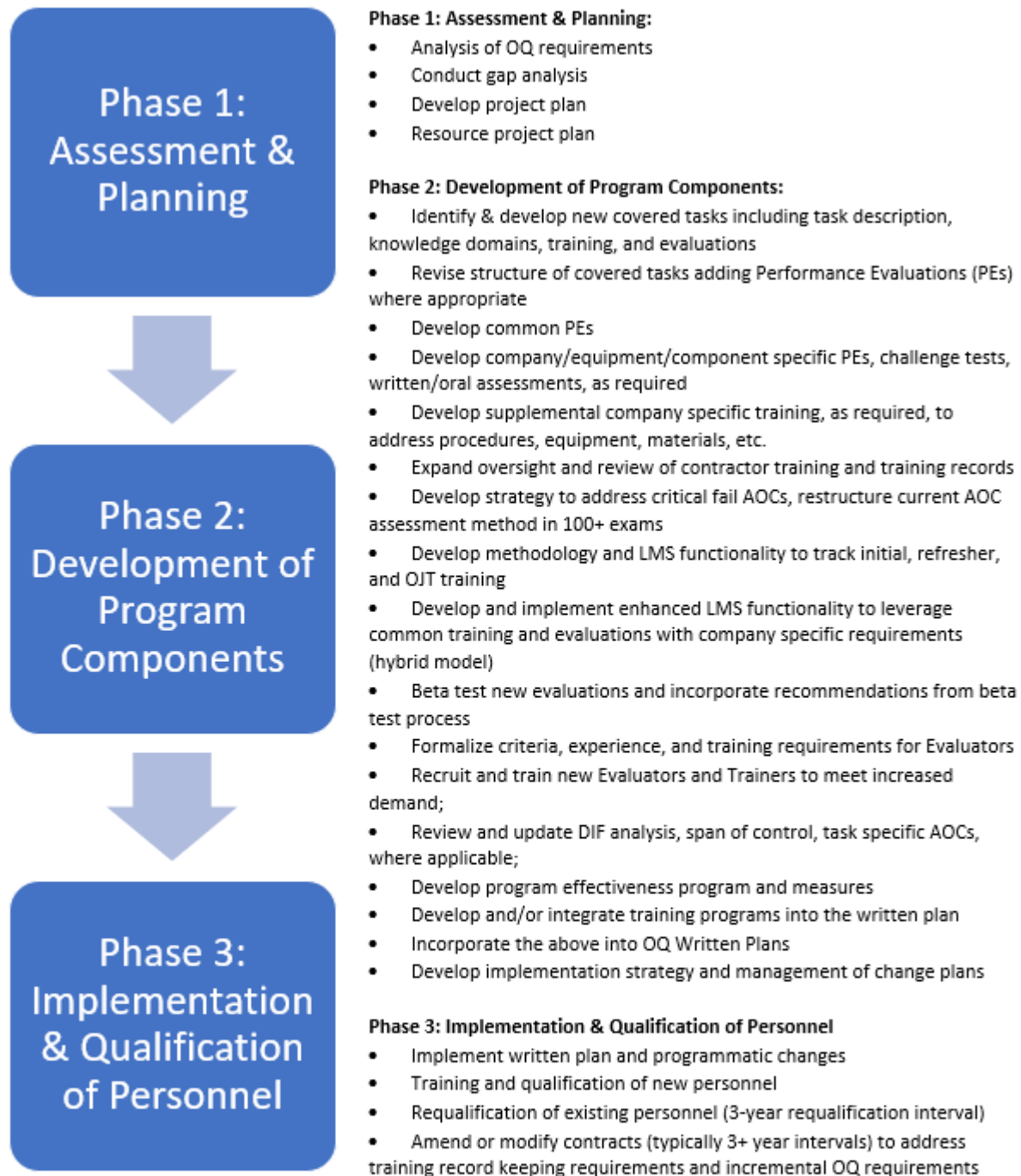
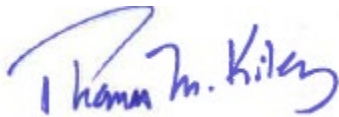


Figure 1 – Phased Implementation Plan

Conclusion

NGA and the New York State LDCs appreciate the opportunity to present these comments. Our goal in offering these comments is to provide practical alternatives to certain Best Practice recommendations which will enhance the competency of the workforce while maximizing public safety value. We hope that our efforts will help the Department of Public Service in achieving concrete improvements in the State's gas safety objectives. Please contact us if you have any questions.

Respectfully submitted,



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Exhibit A – May 7, 2021 Utility Stakeholder Presentation Material




 Operator Qualification Committee

Exhibit A
May 7, 2021 Utility Stakeholder Presentation Material


 NY Advisory Committee


New York OQ NOPR Discussion



New York Advisory / Training & Qualification Committee Meeting
With New York State Department of Public Service,
Pipeline Safety Staff
May 7, 2021

Lauren Toczylowski, Con Edison, OQ Committee Chair
Bob Plewa, National Fuel, OQ Committee Vice Chair
Annette Saxman, National Grid, NY Advisory Committee Vice Chair
Paul Armstrong, Northeast Gas Association
Jose Costa, Northeast Gas Association
Bob Wilson, Northeast Gas Association

 Operator Qualification Committee

 NY Advisory Committee

Clarification Discussion Topics

- Definition of a Covered Task
- Covered Tasks and AOCs
- Training Requirements
- Evaluation Requirements
- Performance Evaluation Wait Period
- AOC Questions
- Disqualification Process
- Training Programs
- Supplemental Training
- Mutual Aid
- Engineering Tasks
- Training Records
- Program Effectiveness
- Implementation Timeline
- Open Discussion

2

Definition of a Covered Task

255.3 Definitions

(a) As used in the Part:

(10) Covered tasks are all activities, identified by the operator, that:

(i) are performed on a pipeline facility; and

(ii) affect the operation or integrity of the pipeline.

- **Intent:** Expand scope of OQ to address all activities that may impact operational safety or integrity of the system (i.e. construction)?
- **Considerations:** Vague definition may expand the number of covered tasks, scope of existing covered tasks and/or create inconsistency.
- **Implications:** Operators will need time to analyze/determine new covered tasks, conduct DIF analysis, determine requalification intervals, determine AOCs, define task domains/elements, amend written plans, develop knowledge/practical assessments, develop training, possibly retrain, implement change, qualify, etc.
- **Operators' Approach:** Consider a risk-based approach to prioritize development and implementation.
- **Note:** CT and B31Q covered task definition: "safety or integrity of the pipeline".

3

Clarity of Covered Tasks and AOCs

255.604(a) Each operator shall have and follow a written qualification program. The program shall include provisions that:

(1) Identify covered tasks and abnormal operating conditions on the operator's system with sufficient specificity to that system;

- **Intent:** Address all applicable AOCs (Common, Task-specific, Company-specific AOCs)?
- **Considerations:** Discuss the intended scope of the term "sufficient specificity". Provide clarity of the phrase "on the operator's system".
- **Implications:** Clarity on these terms will help operators determine scope of impact and ensure alignment with staff's intent.
- **Operators' Approach:** Consider categories of AOCs to help streamline the training and qualification process
 - Common AOC's
 - Task-specific AOC's
 - Company-specific AOC's

4

Training Requirements

255.604(a)(2) Detail the training requirements, including the minimum training needed per covered task, to ensure that each individual performing a covered task is provided the knowledge and skills to be qualified and requalified, when necessary, prior to the individual performing the covered task. Training shall include hands-on learning or simulations;

Intent: To ensure competency by establishing minimum training requirements which incorporate knowledge, skill, ability, company-specific requirements, specialized tools, materials and processes?

- **Considerations:**
 - Training is typically structured around title progression (union) or job function (contractors).
 - Training modules typically covers numerous covered tasks combined. (i.e. not a 1:1 ratio).
 - Not all covered tasks require hands-on learning. For inspection type work (inspect ROWs, condition of pipe, etc.) pictures/videos are effective in a classroom setting.
 - Training for requalification is not always required; dependent on many factors.
- **Implications:** Avoid restructuring training programs to become “covered task centric” or “train to the task” focused.
- **Operators' Approach:** Consider a section in the written plan to outline training programs, both for internal and contractors, and ensure such programs tie to the work being performed, including company specific operations, procedures, etc.₅

Evaluation Requirements

255.604(a)(3) Ensure through evaluation that each individual performing a covered task has gained the knowledge and skills needed to perform the covered task according to the operator's procedures and on the type of equipment used by the operator for the task for which the individual is deemed qualified provided that:

- **Intent:** Ensure personnel can perform covered tasks as required by each operator in accordance with operator specific procedures?
- **Considerations:** Clarification requested on “type of equipment” and “operator's procedures”. Covered tasks are typically a subset of a procedure (not a 1:1 relationship).
- **Implications:** Clarity on these terms will help operators determine scope of impact and ensure alignment with staff's intent.
- **Operators' Approach:** Consider having a process for determining when a unique qualification is required based on the characteristics of the equipment and/or process being performed. Consider calling out specialized equipment in procedures. Consider language that defines the difference between task specific specialized equipment and equipment used in the ordinary course of business.

Performance Evaluation Wait Time

255.604(a)(3)(ii) performance evaluations shall not be conducted within 48 hours of training;

- **Intent:** Ensure true understanding of the process vs. knowledge that can be retained in short-term memory (i.e. cramming for an exam or simply repeating what was demonstrated in a practical exam setting)?
- **Considerations:** Clarification requested regarding reference to training (i.e. formal vs. OJT).
“Wait Periods” typically apply to knowledge evaluations to differentiate between short term memory and true understanding. This issue has limited applicability to skill demonstrations.
- **Implications:** This requirement may increase training/qualification cycles resulting from the logistics in managing wait periods.

7

AOC Questions

255.604(a)(3)(iv) A passing grade on a written test shall not be awarded if the individual answered any question about abnormal operating conditions incorrectly.

Intent: Ensure qualified personnel can recognize and are aptly able react to abnormal operating conditions?

- **Considerations:** Clarification requested on background and intent.
 - Consider that there are no known parallels to this requirement in any industry.
 - Consider current approach to AOC questions (i.e.- # of AOCs per test) may be effected
 - Consider current approach of informing of wrong answers, after a pass is received.
- **Implications:** Significant impact in terms of unwarranted failure rates, which could drive unintended consequences such as teaching to the test, dumbing down exams, etc.
- **Operators' Approach:** Consider taking a risk-based approach (in alignment with other risk-based approaches within B31Q), developing high-risk AOC questions that would result in failure if the question or certain critical fail responses are selected and/or putting high-risk AOC questions in performance evaluations.

8

Disqualification Process

255.604(a)(6) Evaluates an individual if the operator has reason to believe that the individual did not correctly perform a covered task, or if the individual's performance of a covered task contributed to an incident requiring the submission of a report pursuant to 255.801(d), or is otherwise significant in the judgment of the operator.

(a)(7) Evaluates an individual if the operator has any reason to believe the individual is no longer qualified to perform a covered task.

Intent: Ensure operator assesses a individual's knowledge, skill and ability to perform a tasks, if they contribute to an incident or other serious event?

- **Considerations:** Clarification requested on background and intent of additions.
 - Further clarification needed on "reason to believe that the individual did not correctly perform a covered task" versus "reason to believe the individual is no longer qualified to perform a covered task"
 - Human Performance Analysis determines such contributing factors
- **Implications:** Vague/contradictory language could result in unnecessary disqualifications.
- **Operators' Approach:** Develop process to evaluate an individual's knowledge, skill and ability of a task, when their work performance contributes to an incident or other events/work observances defined by the operator.

9

Training Programs

255.604(a)(10) Provide training to ensure that any individual[s] performing covered tasks has the necessary knowledge, skills, and abilities to perform the tasks in a manner that ensures the safe operation of pipeline facilities;

- **Intent:** To ensure competency by ensuring the workforce has received training in all tasks that they perform?
- **Considerations:**
 - Clarification requested on intent and linkage of training to safety incidents.
 - Learning management systems and methodologies will need to be developed to systemically track the various training types (instructor-led, hands-on, OJT, company-specific, refresher) and ensure that training requirements are satisfied.
 - Time required to incorporate training programs/requirements into the written plan and develop systems/methodologies to ensure compliance.
- **Implications:** Significant undertaking to link training records to qualification records. Need implementation glidepath commensurate with the level of program enhancements an operator may need to employ.
- **Operators' Approach:** May vary by operator. Demonstrating compliance could range from manual spreadsheets, to separate databases/LMS for training, to one consolidated DB/LMS. Task profiling with a training affidavit(s) approach may benefit some operators.

10

Supplemental Training

255.604(a)(11) Provides supplemental training for individuals when procedures and specifications are changed for the covered task;

- **Intent:** Ensure a company has an effective MOC process identified/referenced in their Written Plan that addresses evaluation, development and implementation of OQ Plan Revisions including employee training / re-training and contractor notifications, when applicable?
- **Considerations:**
 - MOC Plan should address the scale/nature of change and assess implementation /communication/training/qualification taking a risk-based approach.
 - Not all procedure/specification changes require supplemental training (e.g. company no longer permits use of a product).
 - Procedures align with job functions, not directly with covered tasks
- **Implications:** Operators will need to evaluate existing MOC policies (both, OQ and procedure processes). Could require major LMS updates, if procedure trainings need to be linked to tasks.
- **Operators' Approach:** The PSMS Collaborative is developing an LDC focused approach to MOC including guidance on communication and training / re-training, if warranted. Operator's request phasing this section of code in pending completion of the PSMS MOC Guideline and policy adoption.

11

Mutual Aid

255.604(a)(13) Includes a Mutual Aid training and evaluation plan. Operator contingencies must be in place for the use of outside operator qualified resources when the operator is responding to events that exceed in-house capabilities.

- **Intent:** Ensure mutual aid responders are competent to perform the requisite tasks and understanding the operating procedures/requirements of the host company?
- **Considerations:**
 - Clarification requested on "mutual aid training and evaluation plan" and "Operator contingencies ..."
- **Implications:** Continued efficiency and effectiveness of mutual aid.
- **Operators' Approach:** Consider the concept of "Site Arrival Training" as an integrated component of the Mutual Aid Process. Operators MUST assess arrival companies OQ Program to ensure it meets their minimum requirements, develop Mutual Aid OQ Equivalency Assessment Process and checklist by Task for common Mutual Aid Tasks. Site Arrival Training should be focused on filling any company-specific gaps. Incorporate these concepts into OQ and Emergency Response Programs.

12

Engineering Tasks

[255.604\(a\)\(15\) Identifies engineering tasks;](#)
[255.604\(a\)\(16\) Includes the training and evaluation process to be used for personnel performing engineering tasks, specific to the design, construction, operation, and integrity of pipelines.](#)

- **Intent:** Ensure competency of engineering personnel?
- **Considerations:**
 - Clarification requested on intent and applicability of engineering tasks to OQ.
 - True pipeline safety value can be derived from adoption of a comprehensive, company-specific engineering design review process.
 - Engineering tasks do not fit within the construct of OQ and within the covered task definition.
- **Operators' Approach:** Consider the development and implementation of company-specific policies and procedures that incorporate essential elements of the Engineering Design Review Guideline.

13

Training Records

[255.604\(b\)\(1\)\(vii\) Training that took place to support the individual's qualification or requalification for each covered task.](#)

- **Intent:** Demonstrate compliance with initial training requirements?
- **Considerations:**
 - Training records to demonstrate compliance may be a significant challenge for individuals who change employers as initial training records are not accessible. This could be a significant issue with contractors.
 - Tenure of employee/contractor to be considered, due to record retention policies.
 - Learning management systems and methodologies will need to be developed to systemically track the various training types (instructor-led, hands-on, OJT, company-specific, refresher) and ensure that training requirements are satisfied.
 - Training is not always warranted for requalification dependent on many factors (i.e. experience, frequency that task is performed, changes in operating procedures, equipment, etc.). Proposed language implies that refresher training is a requirement.
- **Implications:** Operators may not have the ability to comply with this section. Significant work may be required to put systems and methodologies in place.
- **Operators' Approach:**
 - Consider a training affirmation record/document for OQ related training. This may need to incorporate an attestation by the individual that certain training has been received by former employer(s). Develop appropriate systems and methodologies to track training.

Span of Control (OJT) Records

255.604(b)(2)(i) Records shall be kept and made available for audit for work completed by a non-qualified individual while being directed and observed by a qualified individual. This documentation can be used to verify on-the-job training.

- **Intent:** Clarification requested on intent of this section. Is the intent to document OJT or all instances where span of control is utilized?
- **Considerations:**
 - Consider that work management systems do not have the capability to track work performed at the covered task level, nor who performed each covered task, or if span-of-control was utilized and the personnel involved.
 - OJT records could be as simple as a "book of repetitions" to document a minimum number of times a task was performed under the supervision of a qualified person. This is significantly different than the tracking of all work performed at the covered task level.
- **Implications:** Depending on intent, compliance with this requirement will require development of new systems or enhancements to existing systems by all operators at a high cost with marginal payback in terms of pipeline safety value.
- **Operators' Approach:** TBD

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Program Effectiveness

255.604(c)(4) Program Effectiveness. Operator Qualification programs shall include a written process to measure the program's effectiveness. An effective program minimizes human error caused by an individual's lack of knowledge, skills, and abilities (KSAs) to perform covered tasks.

- **Intent:** To ensure Operators incorporate continuous improvement strategies into their OQ written plans that assess lessons learned from exam data, near-misses, reportable incidents and other operationally focused root-cause analysis including training related causal actions?
 - Connection of OQ effectiveness to following procedures and equipment?
 - Connection of OQ effectiveness to human performance issues?
- **Considerations:** Develop / enhance existing plans and specific tactical implementation requirements in B31Q as they relate to program effectiveness
- **Implications:** Operators will need time to develop and implement program effectiveness programs.
- **Operators' Approach:** Incorporate written plan program effectiveness metrics and implement.

16

Implementation Timeline

255.604(c) Operators shall have a written qualification program consistent with the requirements herein and in effect by November 30, 2021 or within 9 months of adoption of this rule for written program changes; changes to qualifications shall begin to be implemented 9 months after written programs are changed.

- **Intent:** Define implementation timelines
- **Considerations:** Significant work is expected in many areas and will differ by Operator depending on current program status.
- **Implications:** Operators may need to implement supporting systems and acquire resources to conform with proposed revised requirements, including rate recovery for costs to achieve these changes.
- **Operators' Approach:** Development a comprehensive implementation plan that addresses individual company requirements and a phased approach to implementation.

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Discussion & Process Moving Forward

- Broader Utility Stakeholder Meeting (June ?)
- Comments Extension Based on Input from Public Meeting (90 Day Extension from Date of Public Meeting) ?
- Second Utility Stakeholder Meeting, post Comment Period ?
- Financial Implication Analysis & Incremental Rate Recovery Process ?
- Phase-In Period ?

Thank You!



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Exhibit B – May 25, 2021 Stakeholder Presentation Material




 Operator Qualification Committee

Exhibit B
May 25, 2021 Stakeholder Presentation Material

 NY Advisory Committee

New York OQ NPRM Stakeholder Discussion



New York Advisory Committee Meeting
With New York State Department of Public Service,
Pipeline Safety Staff
May 25, 2021

Larry Cambalik, Central Hudson, NY Advisory Committee Chair
Annette Saxman, National Grid, NY Advisory Committee Vice Chair
Lauren Toczykowski, Con Edison, OQ Committee Chair

 Operator Qualification Committee

 NY Advisory Committee

Clarification / Adoption Discussion Topics

- Definition of a Covered Task
- Training
 - Requirements
 - Supplemental Training
 - Record Keeping
- Evaluation Requirements
- AOCs and AOC Questions
- On-the-Job Performance Evaluations
- Incorrectly Performing a Covered Task
- Mutual Aid
- Engineering Tasks
- Span of Control Records
- Program Effectiveness
- Evaluator Requirements
- Implementation Timeline, Adoption, Enforcement
- NPRM Process and Path Forward
- Open Discussion

2

Definition of a Covered Task

255.3 Definitions

(a) As used in the Part:

(10) Covered tasks are all activities, identified by the operator, that:

- (i) are performed on a pipeline facility; and
- (ii) affect the operation or integrity of the pipeline.

- **Intent:** Expand scope of OQ to address all activities that may impact *operational safety or integrity of the system* (i.e. new construction, close interval survey, contractor fabricating assemblies)
- **Considerations:** Vague definition may unintentionally expand the number of covered tasks or scope of existing covered tasks to address items that have little or no direct implications on pipeline safety. Use of "pipeline facility" raises concerns on expanded applicability.
- **Implications:** Operators will need time to analyze/determine new covered tasks, conduct DIF analysis, determine requalification intervals, determine AOCs, define domains/elements, amend written plans, develop knowledge/practical assessments, develop training, possibly retrain, implement change, qualify, etc.
- **Recommendation:**
 - Consider a risk-based approach to prioritize development and implementation.
 - Consider *pipeline vs. pipeline facility* to clarify scope/intent.
 - Consider *safety or integrity vs. operation or integrity* to clarify scope/intent (Reference ASME B31Q).

3

Training Requirements

255.604(a)(2) Detail the training requirements, including the minimum training needed per covered task, to ensure that each individual performing a covered task is provided the knowledge and skills to be qualified and requalified, when necessary, prior to the individual performing the covered task. Training shall include hands-on learning or simulations;

- **Intent:** To ensure training programs are in place for the work/tasks being performed by utilities and contractors and that training should incorporate company specific work practices, equipment, etc.
- **Considerations:**
 - Training is typically structured around title progression and/or job function.
 - There are a multitude of training options including instructor led, hands-on, OJT, CBT, etc.
 - Not all covered tasks require hands-on learning. For inspection type work (inspect ROWs, condition of pipe, etc.) pictures/videos are effective in a classroom setting.
 - Training modules typically cover numerous/related covered tasks. (i.e. not a 1:1 ratio).
 - Re-training for requalification is not always required; dependent on many factors.
- **Implications:** Avoid restructuring training programs to become "covered task centric"; however, ensure training prerequisites are clearly identified and include integration of company specific procedures, specifications and work practices, where applicable.
- **Recommendations:**
 - Consider a section/appendix of the written plan to outline training programs, both for internal and contractors, and ensure such programs tie to the work being performed, including company specific operations, procedures, etc. Include a matrix to connect *initial* training programs to covered tasks.
 - Consider *initial training* should include hands-on learning, *where applicable*, to clarify intent.

4

Management of Change & Supplemental Training

255.604(a)(8) Establishes and maintains a Management of Change program that will communicate significant changes that affect covered tasks to individuals performing or within the span of control for those covered tasks;

(i) the operator will determine what constitutes a significant change.

(ii) the operator shall determine whether, and which, changes require suspension of operator

255.604(a)(11) Provides supplemental training for individuals when procedures and specifications are changed for the covered task;

- **Intent:** Ensure a company has an effective MOC process that considers implications of training and qualifications.
- **Considerations:**
 - MOC Plans go beyond OQ, but should consider training and qualification implications of changes, including the scale/nature of change and assess implementation/communication/training/qualification, taking a risk-based approach.
 - Not all procedure/specification changes require supplemental training. (e.g. announcement that a company no longer permits use of a product).
 - The PSMS Collaborative is developing an LDC focused approach to MOC including guidance on communication and training / re-training, if warranted. Operator's request phasing this section of code in pending completion of the PSMS MOC Guideline and policy adoption.
- **Implications:** Operators will need to evaluate existing MOC policies (for training, OQ, procedures, etc.).
- **Recommendations:**
 - Consider addressing topics in 255.604(a)(11) under MOC in 255.604(a)(8) and from a broader perspective, include PSMS MOC policy requirements in 255.605 as an integral component of a filed O&M Plan.
 - Address supplemental training that may be required as a component of the operator's MOC process. ⁵

Training Programs

255.604(a)(10) Provide training [as appropriate,] to ensure that any individual[s] performing covered tasks has the necessary knowledge, skills, and abilities to perform the tasks in a manner that ensures the safe operation of pipeline facilities;

- **Intent:** To ensure training programs are in place for the work/tasks being performed by utilities and contractors and that training should incorporate company specific work practices, equipment, etc.
- **Considerations:**
 - As previously discussed, there are various training options and approaches that can be utilized dependent on many factors (scope of work/job function, task complexity, equipment complexity, experience/qualifications of the individual, frequency a task is being performed, etc.)
 - Training should be *appropriately* "fit for purpose".
- **Recommendations:**
 - Training methods will vary significantly, as discussed above. Given this context, consider leaving as *appropriate* in 255.604(a)(10)

Training Records

255.604(b)(1)(vii) Training that took place to support the individual's qualification or requalification for each covered task.

- **Intent:** Demonstrate compliance with operator's training requirements.
- **Considerations:**
 - Training records to demonstrate compliance may be a significant industry challenge relative to individuals who change employers. This could lead to repeating fundamental training for experienced employees.
 - Tenure of employee/contractor to be considered, due to record retention requirements.
 - Learning management systems and methodologies will need to be developed to systemically track the various training types (instructor-led, hands-on, OJT, company-specific, refresher), link these records to job functions and associated qualifications to ensure that requirements are satisfied.
 - Re-training is not always warranted for requalification dependent on many factors (i.e. experience, frequency that task is performed, changes in operating procedures, equipment, etc.).
 - The purpose of requalification is to ensure the individual maintains knowledge, skill and ability.
- **Implications:** Significant resources may be required to re-configure / install / update systems and methodologies in place.
- **Recommendations:**
 - Consider a training affirmation record/document for OQ related training. This may need to incorporate an attestation by the company or individual that certain training has been received.
 - Clarify that training for requalification is *as appropriate*.
 - Provide flexibility in training records to accommodate experienced individuals via affidavits or other means.

7

Evaluation Requirements

255.604(a)(3) Ensure through evaluation that each individual performing a covered task has gained the knowledge and skills needed to perform the covered task according to the operator's procedures and on the type of equipment used by the operator for the task for which the individual is deemed qualified provided that:

- **Intent:** Ensure personnel can perform covered tasks as required by each operator in accordance with operator's procedures and equipment typically used by that operator.
- **Considerations:**
 - Provide better clarity on "type of equipment".
 - Covered tasks are typically a subset of a procedure (not a 1:1 relationship).
- **Implications:** Clarity on these terms will help operators determine scope of impact and ensure alignment with staff's intent.
- **Recommendations:**
 - Consider having a process for determining when a unique qualification is required based on the characteristics of the equipment and/or associated unique procedure being performed.
 - This will differentiate between "specialized equipment" and equipment used in the ordinary course of business.

8

Risk-Based Approach to AOC Questions

255.604(a)(3)(iv) A passing grade on a written test shall not be awarded if the individual answered any question about abnormal operating conditions incorrectly.

- **Intent:** Ensure qualified personnel can recognize and aptly react to abnormal operating conditions.
- **Considerations:**
 - Consider that there are no known parallels to this requirement in any industry.
 - Consider current approach of informing of incorrect answers, after a passing grade is received.
 - While all AOCs are important, they are not equal in risk severity and potential consequences.
 - Written evaluation response should not assume a parallel to field work.
 - Parallel risk-based approaches in ASME B31Q, DIMP, and other code sections.
 - ASME B31Q process risk ranks covered tasks. High risk rank based on immediacy of the condition and potential impact.
 - API RP 1161 identifies AOCs based on potential for *release, overpressure, or other potentially hazardous conditions* consistent with PHMSA enforcement and GPTC guidance.
- **Implications:** Potential for unintended consequences such as teaching to the test, dumbing down exams, etc. driven by unwarranted failure rates on written evaluations.
- **Recommendations:**
 - Consider taking a risk-based approach to AOC questions that would result in failure if high-risk AOC questions are answered incorrectly and/or certain critical fail responses are selected.
 - Consider use of performance evaluations for these high-risk AOC questions.

Clarify On-the-Job Performance Evaluations

255.604(a)(3)(v) Observation of on-the-job performance is not used as a sole method of evaluation. However, when on-the-job performance is used to complete an individual's competency for a covered task, the operator qualification procedure must define the measures used to determine successful completion of the on-the-job performance evaluation and shall be evaluated by individuals qualified to perform that task on the operator's system.

- **Intent:** Differentiate between simply observing an individual performing a task and conducting a performance evaluation with specified evaluation criteria, that happens to take place in the field?
- **Considerations:**
 - Clarification that an on-the-job performance evaluation, with defined evaluation criteria, is acceptable.
 - For on-the-job performance evaluations, operators must ensure that span-of-control requirements are met and that an operator qualified individual is overseeing any non-qualified individual.
- **Recommendations:**
 - Consider language which clarifies intent of on-the-job performance.
 - Specify that on-the-job performance evaluations must meet span of control requirements, as opposed to stipulating evaluator requirements.

Individuals Not Performing a CT Correctly

255.604(a)(6) Evaluates an individual if the operator has reason to believe that the individual did not correctly perform a covered task, or if the individual's performance of a covered task contributed to an incident requiring the submission of a report pursuant to 255.801(d) or is otherwise significant in the judgment of the operator.

(a)(7) Evaluates an individual if the operator has any reason to believe the individual is no longer qualified to perform a covered task.

- **Intent:** Ensure operator assess an individual's knowledge, skill and ability to perform a covered task, if they contribute to an incident or other serious event.
- **Considerations:**
 - Clarity is needed to understand the difference between (a)(6) and (a)(7) scenarios.
 - There are many reasons that could cause an individual to incorrectly perform a covered task. Such instances, when identified, should be investigated. Human Performance Analysis determines such contributing factors.
 - This review process could include immediately removing the individual from performing the covered task pending results of an investigation, retraining/coaching, reevaluation, suspension, and/or disqualification, in accordance with operator's policy.
- **Recommendations:** Consider language to provide the needed flexibility to address observed issues appropriately, based on company policy and findings from applicable investigations.


11


Mutual Aid

255.604(a)(13) Includes a Mutual Aid training and evaluation plan. Operator contingencies must be in place for the use of outside operator qualified resources when the operator is responding to events that exceed in-house capabilities.

- **Intent:** Ensure mutual aid responders are competent to perform the requisite tasks and understanding the operating procedures/requirements of the host company. Ensure emergency preparedness from an OQ perspective.
- **Considerations:**
 - Clarify concern with "mutual aid training and evaluation plan" and "Operator contingencies ..."
 - Operators MUST assess arrival companies OQ Program to ensure it meets their minimum requirements, develop Mutual Aid OQ Equivalency Assessment Process by Task, for common Mutual Aid Tasks.
 - Consider the concept of "Site Arrival Training" as an integrated component of the Mutual Aid Process. Site Arrival Training should be focused on company-specific requirements.
 - Incorporate these concepts into OQ and Emergency Response Programs.
- **Recommendations:** Consider alternate language that provides greater clarity and incorporates the concepts noted above.

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 Operator Qualification Committee


 NY Advisory Committee


Engineering Tasks

[255.604\(a\)\(15\) Identifies engineering tasks;](#)
[255.604\(a\)\(16\) Includes the training and evaluation process to be used for personnel performing engineering tasks, specific to the design, construction, operation, and integrity of pipelines.](#)

- **Intent:** Ensure competency of engineering personnel.
- **Considerations:**
 - Concern regarding applicability of engineering tasks to an OQ framework.
 - Engineering tasks do not fit within the construct of OQ and within the covered task definition.
 - True pipeline safety value can be derived from adoption of a comprehensive, company-specific engineering design review process.
- **Recommendations:**
 - Consider the development and implementation of company-specific policies and procedures that incorporate essential elements of the Engineering Design Review Guideline and the competency development process for an engineer
 - Consider excluding provisions for engineering tasks from this NPRM and incorporate as a component in 255.605 as an Operations, Maintenance and Construction Plan

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 Operator Qualification Committee

 NY Advisory Committee

Span of Control (OJT) Records

[255.604\(b\)\(2\)\(i\) Records shall be kept and made available for audit for work completed by a non-qualified individual while being directed and observed by a qualified individual. This documentation can be used to verify on-the-job training.](#)

- **Intent:** Document instances when span of control is utilized.
- **Considerations:**
 - Consider that work management systems do not have the capability to track work performed at the covered task level, nor who performed each covered task, or if span-of-control was utilized and the personnel involved.
 - OJT records could include a “book of repetitions” to document a minimum number of times a task was performed under the supervision of a qualified person. This is significantly different than the tracking of all work performed at the covered task level.
- **Implications:** Depending on intent and interpretation, compliance with this requirement may require development of new systems or enhancements to existing systems by all operators at a significant cost, with marginal payback in terms of pipeline safety value.
- **Recommendations:**
 - Consider omitting this requirement from the NPRM
 - Consider focusing intent on a documentation process that would capture when span-of-control was used, for records currently required to be kept. Note – this simplified approach would have limited reporting capabilities.

14

Program Effectiveness

255.604(c)(4) Program Effectiveness. Operator Qualification programs shall include a written process to measure the program's effectiveness. An effective program minimizes human error caused by an individual's lack of knowledge, skills, and abilities (KSAs) to perform covered tasks.

- **Intent:** To ensure operators incorporate continuous improvement strategies into their OQ plans that assess lessons learned from exam data, near-misses, reportable incidents and other operationally focused root-cause analysis including training related causal actions.
- **Considerations:**
 - Development and/or enhancement of existing program effectiveness plans will be required.
 - In some cases, data capture/reporting systems will need to be put in place to capture and trend required metrics.
 - Program implementation and management resources will be required.
- **Recommendations:** Ensure appropriate conformance timeframes are considered in adoption rules.

15

Evaluator Requirements

255.604(c)(viii) Program records must include criteria used for selecting, training, and qualifying evaluators.

- **Intent:** To ensure evaluators have the requisite technical knowledge, knowledge of company requirements/procedures, and experience to conduct performance evaluations.
- **Considerations:**
 - Evaluators can be formally operator qualified or *authorized* to conduct performance evaluations provided they have the requisite knowledge, inclusive of company procedures/requirements, and meet the operator's defined evaluator criteria. Examples include experienced individuals that no longer have the physical ability to perform the task or a 3rd party SME (manufacturer's rep, 3rd party evaluator).
 - Operators should have a process for determining the requirements to be an evaluator and a process of *authorizing* evaluators to conduct evaluations on covered tasks.
 - Use of the term *qualifying evaluators* may be misconstrued to imply that evaluators must be formally *operator qualified*.
- **Implications:** Personnel with requisite experience and subject-matter-expertise may be precluded from conducting performance evaluations.
- **Recommendations:**
 - Operators must ensure evaluators are formerly operator qualified in the cover task assigned to evaluate or meet the operator's defined criteria to conduct performance evaluations.
 - Consider the term *authorizing evaluators* vs. *qualifying evaluators* to clarify intent.

16

Implementation Timeline

255.604(c) Operators shall have a written qualification program consistent with the requirements herein and in effect by November 30, 2021 or within 9 months of adoption of this rule for written program changes; changes to qualifications shall begin to be implemented 9 months after written programs are changed.

- **Intent:** Define implementation timelines.
- **Considerations:**
 - Significant OQ Program work has been ongoing since 2017.
 - Significant work is still required (task assessment/development, evaluation development, training framework, program effectiveness, management of change plans, update written plan, phased implementation, requalify personnel, etc.)
 - Level of effort will differ by operator depending on current program status.
 - Operators may need to implement supporting systems and acquire resources to conform with proposed revised requirements, including rate recovery for costs to achieve these changes.
- **Recommendations:** Develop a comprehensive implementation plan that addresses individual company requirements and a phased approach to implementation.
 - Phase 1 – Assessment and planning
 - Phase 2 – Development of program components and supporting systems
 - Phase 3 – Implementation and Qualification of personnel

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Discussion & Process Moving Forward

- NPRM Revisions; Re-SAPA Process ?
- Possible Additional Comment Period ?
- Second Utility Stakeholder Meeting, post Comment Period ?
- Financial Implication Analysis & Incremental Rate Recovery Process ?
- Adoption / Phase-In Period ?

Thank You!



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Exhibit C

Summary of Training and Qualification Program Enhancements Undertaken by NY LDCs

Exam Security Enhancements:

Significant investments have been made to achieve the following exam security enhancements, which are now believed to be the most comprehensive in the industry:

- Rewrite and implement all new exams (2017);
- Implement interim/enhanced exam security protocols (2017);
- Consultant review and recommendation for best-in-class exam security options (2017);
- Execution of contract with Prometric for exam security (2017);
- Integration of Prometric platform with Learning Management System (LMS) platform completed (2017);
- Commence transition to online testing via Prometric (2018);
- Cloning of all exam questions so that spare exams are available as a contingency plan in the event of an exam breach (2017 – 2018).

OQ Program Roadmap:

In September 2017, NGA and NY LDCs released a Draft OQ White Paper⁶ (reference Exhibit D) outlining planned OQ program enhancements including:

- Encouraging a paradigm shift regarding “Operational Ownership” of the OQ Program by each LDC by adopting a layered approach to ensure both training and qualification covering fundamental knowledge and skills as well as integrating company specific procedures, work methods and materials of construction into Company specific OQ Programs;
- A refreshed look at the fundamental balance of Written Exams and Performance Evaluations in determining competency of individuals by adopting the approach outlined in ASME B31Q to determine which tasks require performance evaluations and the development of additional performance evaluations. Draft recommendations regarding performance evaluations were discussed with DPS Staff on February 7, 2019;
- Incorporation of fundamental knowledge and core skills training in addition to company specific training as a requirement of qualification;
- Adoption of a Core Skills Training Program for both operators and contractors (Gas Technology Institute’s (GTI) Field Skills Training Program) (Completed 2018);
- Development of a Contractor Training Guideline (reference Exhibit E) which provides a framework for the training of contractor personnel including the delivery of requisite training of contractors addressing fundamental knowledge, core skills, LDC specific procedures, and use of company specified equipment and materials of construction.

⁶ NY LDCs and NGA met with DPS Staff on October 3, 2017 to review the roadmap recommendations contained within NGA’s Draft OQ White Paper.

OQ Program Enhancements:

A number of changes to the OQ program have increased the rigor of the program. These enhancements include:

- Shortened all 5-year requalification intervals to a more conservative 3-year interval (OQ Written Plan, Rev K);
- Addition of seven new performance evaluations including exothermic welding, leak survey, line locating, regulator station inspection and three compressor station related tasks (OQ Written Plan, Rev K/L);
- Review and adoption of more conservative span-of-control, where applicable (OQ Written Plan, Rev K);
- Inclusion of Task-specific abnormal operating conditions (AOCs) in the domain of content covered by evaluations, where applicable (OQ Written Plan, Rev L);
- Subject Matter Expert (SME) review and update of Covered Task domains, elements, and AOCs (OQ Written Plan, Rev L);
- Update to the OQ management of change process (OQ Written Plan, Rev L).
- Performing a task-by-task analysis, utilizing the fundamental principles found in ASME B31Q, to identify the appropriate assessment methods for each task, which resulted in the recommendation to add performance evaluation assessments to the vast majority of covered tasks. (2019);
- Performing a task-by-task analysis to determine which tasks may warrant an equipment specific or component specific evaluation. (2019);
- Creation of an enhanced template and initial drafts of performance evaluations for all proposed covered tasks which require performance evaluations. (2019);
- Commissioning of subject-matter-expert teams to review and refine draft performance evaluations. (2020 – ongoing effort);
- Commenced beta testing of draft performance evaluations to gather feedback to further refine and enhance performance evaluations. (2021 – ongoing effort).

Training Enhancements:

Increased emphasis on training as a central component of OQ has been achieved through:

- SME review and update of all web-based refresher training modules (2017);
- Execution of a license with GTI enabling access for all NGA OQ Program users (operators and contractors) to the GTI Field Skills (Core Skills) Training Program (2018);
- Execution of an agreement enabling NGA and NY LDCs to work with GTI regarding updates and enhancements to the Field Skills Training Program to help ensure that the program will remain current with changing technology, revisions to code, etc. (2018);
- Execution of an agreement enabling NY LDCs and contractors to integrate company specific training requirements into the GTI Field Skills Training Program, to construct a training program tailored for the needs of each operator and contractor. (2018);
- Conduction of a comprehensive gap analysis comparing OQ Task domains, elements, and critical parameters to the GTI Field Skills Training Program (2019);

- Completion of a major update and enhancement to the GTI Field Skills Training Program to address all identified training gaps. (2021)

Company Specific Enhancements:

The majority of NY LDCs have made or are in the process of making additional company specific enhancements to *their OQ Program* to ensure that their operational requirements are addressed. Company specific enhancements include:

- Use of Appendix D (Company-Specific Amendments to NGA OQ Program Written Plan) and Appendix E (Company-Specific Forms, Policies, and Procedures) to define, refine, and/or explain ways in which each operator conducts and manages its OQ program;
- Development of company specific tasks and associated knowledge and practical evaluations where the operator's requirements exceed or differ from those found in the NGA OQ Program;
- Investment in LMS and internal resources to develop company specific series of tasks and track qualifications for both internal and contractor employees;
- Development of knowledge and/or practical exams covering company specific operating procedures that supplement or replace NGA exams to help ensure that an individual understands the operator's procedures and work methods;
- Development of various approaches and methods regarding the training of contractor personnel for fundamental knowledge and skills as well as company specific requirements.