



NEW MEXICO GAS COMPANY OPERATOR QUALIFICATION

OQIP PILOT PROGRAM

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Background

The Operator Qualification Integrity Coalition (OQ Coalition) is a group of diverse and inclusive industry stakeholders working to develop the Operator Qualification Integrity Process (OQIP), to ensure conformance with PHMSA 49 CFR 192 Subpart N. The OQIP improves operator qualification practices through the standardization of best practices and leveraging the learning from industry members committed to the safe and reliable operation of natural gas pipeline facilities. The OQIP provides a guided document that focuses on three core elements – People Elements, Process Elements, & Program Validation. The OQIP incorporates credentialing principles for trainers, proctors, evaluators, and auditors and focuses on the key qualifications needed to perform covered tasks by qualified individuals. The OQIP further develops upon the audit component to ensure continuous improvement. The Coalition launched three OQIP pilot programs across the United States. The pilot programs utilize the Plan, Do, Check, Adjust continuous improvement practices to report back lessons learned to be incorporated into the program and documentation.

New Mexico Gas Company (NMGC)

NMGC is a distribution and transmission pipeline operator in New Mexico and has a footprint of 1,507 miles of intrastate transmission and 10,904 miles of intrastate distribution pipelines, 547,688 services, 690 employees of which 306 are qualified team members, and 143 Contractors.

NMGC was invited to join the OQ Coalition in July 2018 and agreed to participate in the industry OQIP pilot. The OQIP pilot goals align well with NMGC efforts to implement a robust operator qualification program and develop opportunities for the portability of operator qualifications. NMGC originally began the pilot with five NMGC contractors and currently participates in the pilot with two NMGC contractors, although all NMGC contractors abide by the NMGC Operator Qualification Plan requirements to perform covered tasks on NMGC facilities.

Plan and Qualifications

NMGC began its enhanced operator qualification journey in 2016 with the adoption of the ASME B31Q Covered Task List. First, NMGC reviewed all covered tasks in ASME B31Q to ensure all operator qualified covered tasks were applicable to the operations and maintenance tasks performed by NMGC and its contractors. Next, NMGC developed a roadmap comparison of the prior covered tasks and the new covered task list from B31Q. By utilizing the ASME B31Q covered task list, NMGC was able to identify the core competencies necessary to perform covered tasks. Specific competencies or operator specific competencies applicable to NMGC are identified in the NMGC job procedures which are incorporated into the operator qualification process including task specific abnormal operating conditions. NMGC implemented revisions to the operator qualification program into a step process over a 3-year period to allow time for grandfathered qualifications to complete the cycle.

NMGC continued the revisions to the plan in 2017 after a comprehensive audit of the NMGC Operator Qualification Plan by the regulating entity, New Mexico Pipeline Safety Bureau (PSB). NMGC experienced multiple notices of probable violations related to the operator qualification plan as the result of the audit. The audit confirmed the need to revise its plan to adapt to continuing industry best practices and operate at a higher level of integrity for both internal operator qualified individuals and NMGC contractors.

Later in 2019, NMGC assessed the need to integrate high hazard recognition into the job procedures. To do this, tasks were reviewed to determine whether each covered task involved a high hazard that could result in a serious injury or high consequence incident if not performed properly in accordance with policy and procedures. During this timeframe, the job procedures were also converted to a Spanish language version to address the large population of Spanish speaking qualified individuals.

The next phase of revisions in 2017 was to the written plan. NMGC revised its written plan to incorporate proctored exams, specific qualifications for evaluators, and more requirements for testing. To improve the integrity of the NMGC operator qualification process NMGC selected a third-party operator qualification provider, Industrial Training Services (ITS) that would be the single provider for internal and contractor qualifications. By utilizing ITS, NMGC was able to successfully incorporate job procedures into the operator qualification process, monitor contractor qualifications, and ensure the portability of contractor qualified individuals.

New requirements at this stage of the revision included proctored exams, lock out times for failed examinations and performance evaluations, and the enhanced process of question shuffling. Evaluator criteria was developed to include more stringent requirements to qualify individuals in performance evaluations. Additionally, NMGC added a requirement that is above and beyond the requirements of the OQIP. Per this requirement, performance evaluations shall not be performed by any evaluators reporting to the same supervisor as the individual being qualified. Instead, a third-party evaluator or an evaluator from another area or contractor may be acquired to conduct the performance evaluations.

Lastly, NMGC developed additional criteria related to temporary absences to ensure team members continue to be qualified with the requisite knowledge, skills, and abilities. NMGC qualified individuals and contractors that experience temporary absences from work of 60 days or more have their qualifications suspended and upon return must complete a written performance evaluation. Upon successful completion of written performance evaluations, operator qualifications are reinstated.

Audit & Effectiveness Reviews

NMGC is currently in the process of implementing the audit and effectiveness review portion of OQIP with its contractors. This includes the addition of two more resources to the Pipeline Safety Management (PSMS) team who conduct audits and reviews of both internal and NMGC contractor compliance.

Conclusion

NMGC continues to participate and contribute to the OQIP pilot program today, after completing many of the changes outlined above through 2020. NMGC has seen many positive results since the implementation, one of the positive results was the portability of operator qualifications. NMGC contractors can easily utilize specialty qualified individuals such as steel welders when needed on large projects. The evaluator requirements have encouraged contractor camaraderie and improved relationships across NMGC contractors. The recognition of high hazard tasks into job procedures raised awareness and placed emphasis on the risks associated with performing the identified covered tasks. In the event of an emergency, NMGC now has an operator qualification program that facilitates quick and effective mutual aid, a component that was not as streamlined at NMGC prior to the OQIP. NMGC is continuing the journey today for operator qualification process improvement and will record results

from implementation of the audit and effectiveness reviews through the OQIP pilot. Overall, NMGC has seen a positive change in the culture and relationships across the board for internally qualified individuals and for NMGC pipeline contractors. The pilot program has brought a higher level of awareness and integrity to the operator qualification process, helping to ensure a safe and reliable pipeline operation in accordance with federal and state regulations.

Lessons Learned

Communication and planning are key to the successful implementation of any program. It is important to leverage other programs such as management systems, change management processes, and internal policies and procedures to facilitate any changes and keep contractor engaged in the process. An open communication process allows contractors the opportunity to receive the necessary assistance when issues arise and to provide feedback on the process.

NMGC reviews its covered task list on at least an annual basis. Review of the covered task list assures that all covered tasks are included in a comprehensive program. As technology evolves, it may be necessary to incorporate operator specific covered tasks to utilize the new technology. For example, the implementation of aerial leakage surveys. NMGC worked with the 3rd party operator qualification provider, contractors, and SMEs to develop an operator specific task including the training content, written exam, and performance evaluation to include abnormal operating conditions (AOCs). Although the requirement of technological knowledge could be inferred by the description of the ASME covered task for Mobile Leakage Survey, NMGC felt the relevant technology was specific and needed to be identified more thoroughly. NMGC therefore, created an operator specific task.

When revising the NMGC Operator Qualification Plan and Contractor Personnel Plan, NMGC realized the need for a methodology for documentation of span of control and on-the-job training. NMGC incorporated a span of control checklist to serve as verification and documentation that span of control was performed in accordance with operator qualification requirements and that an individual did not perform span of control on critical covered tasks where the span of control ratio is zero and not allowed to be performed. The span of control checklist has been effective to document on-the-job training and number of repetitions a covered task was performed for new team members exposed to covered tasks as part of initial training requirements. During the COVID pandemic, the documentation of on-the-job training was a vital requirement to ensure a qualified workforce from the perspective of knowledge, skills, and abilities due to the limited availability of gathering in a technical training environment.

NMGC Operator Qualification Journey

