

DCA/AGA Workshop Grows In Attendance, Expands Scope

By Eben M. Wyman | [July 2015, Vol. 70, No. 7](#)



An audience of over 140 attended the DCA/AGA Workshop

More than 140 attendees – including representatives of utility companies, contractors, equipment manufacturers and labor unions – gathered in Chicago on April 28-29 for the second annual gas distribution construction industry workshop sponsored by the Distribution Contractors Association (DCA) and the American Gas Association (AGA).

The workshop, which is focused on enhancing communication and cooperation between gas distribution utilities and their contractor partners, included presentations and panel discussions by industry experts on workforce capacity challenges, horizontal directional drilling operations (HDD), cross bore mitigation, operator qualification and efforts to enhance “portability” of contractors’ OQ programs, and other issues of interest to the gas distribution construction industry.

Encouraging flexibility

Mark Bridgers of Continuum Advisory Group kicked off the workshop by describing the challenges the gas distribution industry will face over the next decade in market volatility and the related issues of financing, leadership and available workforce. Bridgers encouraged gas utilities and contractors to embrace flexibility, advising both that remaining “rigid and backward-looking to history as the only guide will suffer, while nimble firms that look forward in adapting to change and innovation will thrive.”

Industry leaders must recognize drivers in the gathering, pipeline and distribution markets and the economic and “derived” demand behind them,” said Bridgers. Drivers include replacement funding, federal integrity requirements, falling oil prices, the role of the housing market, pipeline capacity challenges, impacts of hydraulic fracturing on the distribution market and increased legislative activity aimed at accelerating distribution replacement programs.

These drivers are leading several utilities to implement aggressive replacement programs and spend significant amounts of money to do so. Bridgers provided workshop attendees with an overview of who is doing the work and the states where most replacement projects are occurring.

He also observed that the growth in spending on oil and gas pipeline construction (\$31 billion in 2008 to \$45 billion in 2014) has stretched resources to the point where continued expansion is becoming problematic for both utilities and the contractors who serve them. Add to this the forecast that spending is expected to increase to \$65 billion in 2020 and to \$80 billion in 2028, and it is clear that the industry must prepare to meet skyrocketing demand.

Workforce challenges

Following Bridgers' presentation, a wide range of stakeholders in the gas distribution construction industry participated in a panel discussion on how to recruit the best job candidates in an industry facing a growing gap between production demand and the availability of skilled labor.

Efforts by pipeline operators, construction contractors, equipment manufacturers and labor unions to approach potential employees from local colleges and trade schools are supported by job fairs, revamped websites and use of social media such as Facebook and YouTube. From all industry sectors, the message was the same: the pipeline industry continues to grow and the sky's the limit for those who choose to work within that market segment.

Despite this positive message, the gas distribution pipeline industry faces important workforce challenges, in particular the significant gap between the young and inexperienced and a growing number of those who make up the "graying workforce." The age disparity can be formidable, with one panelist describing 50 percent of his company's workforce as being over the age of 40, while another indicated that 20 percent of his company's employees have less than five years' experience. Contractors and utilities described similar hurdles in attracting the best and brightest, some of whom don't enter the industry until they are in their late 20s.

Because pipeline operators are increasingly outsourcing their construction programs, contractors face an especially challenging capacity issue. Construction employers have to be "aggressive but selective" in recruiting. While huge opportunities exist, labor-intensive construction work is not for everybody.

Many construction employers recruit using a cultural approach, describing a family-like environment and demonstrating that pipeline construction is a solid and promising long-term career choice, despite the temporary nature of construction projects. Additionally, while hard

work and long hours come with construction work, limited travel requirements offer employees quality work that is both profitable and family-friendly.

Working in the industry also enhances the relationship between local communities and the companies that exist and operate in them. While recruiting efforts focus on high schools, colleges and trade schools, education about the pipeline and construction industries also includes engaging elementary schools, proving it's never too early to start grooming tomorrow's energy and construction workforce.

Most panelists said they give special consideration to military veterans and others returning from service overseas. "Helmets to Hard Hats" and similar recruiting programs offer many vets with needed skill sets a range of opportunities in the energy and construction industries.

Operators and contractors also work closely with labor organizations where union apprenticeships can lead to high-wage jobs that come with quality healthcare and pension benefits.

Outreach to educational institutions at all age levels is a must, panelists emphasized. Some equipment manufacturers even donate expensive equipment to schools that offer training and education on how to operate it. Additionally, incentives such as referral bonuses for workers who bring in new hires can be a very effective recruitment tool. However, this is usually most effective in recruiting younger workers, while senior managers are normally promoted from within the existing workforce.

Panelists agreed that getting the right people on board is only half the battle. Keeping quality personnel can be equally challenging. Many seasoned companies offer employee development programs that encourage workers to advance their careers within the organization as well as the industry, and help them adapt to changes in their profession.

The problem of "poaching" employees elicited a variety of opinions. Contractors sometimes lure workers from their competitors, and some utilities have been accused of hiring personnel from their contractors after they are trained and "OQ compliant," at the expense of the contractor. Although some panelists described worker poaching as "part of the cost of doing business," most agreed that the practice doesn't work for anybody. In fact, poaching for the most part only leads to unnecessary bad blood in the industry and opens the door to possible recriminations.

After a robust question-and-answer period, the DCA formed a working group of utility representatives, contractors, manufacturers and labor unions. This new group will continue to examine the challenges of creating the best possible "21st-Century Energy Workforce" – a topic of increasing interest on Capitol Hill as well. The group plans to meet via conference call in the

coming months to discuss how to work cooperatively to ensure all industry sectors recruit and retain the best workforce possible.

Current OQ programs, inspections

Operator qualification (OQ) and the many surrounding issues regarding compliance with varying OQ requirements often spark lively discussion. The workshop's first OQ panel included organizations that develop and support OQ programs and documentation as well as representatives from pipeline operators and distribution contractors.

After recapping the history of the OQ rule and its general requirements, panelists agreed that operator OQ plans can be vastly different and therefore the importance of documentation cannot be overstated. In fact, in many pipeline incidents, the personnel in question may well have done the job correctly but failure to maintain current qualification records opens the door to criticism and possible enforcement action.

An operator on the panel stressed three standards that must be met: compliance with 49 CFR Part 192 of the pipeline safety regulations, compliance with the operator's construction standards and compliance with the manufacturer's installation procedures.

The operator emphasized the critical role of OQ inspectors and importance of their knowledge of operating procedures and all related installation procedures. He described a list of covered tasks and expressed concerns with contractor personnel performing the work. These tasks included evaluating the qualification of those involved in HDD operations, ensuring the appropriate depth of cover for gas mains and service lines, providing tracer wire or other means of locating non-metallic pipe, following welding procedures and O&M written procedures, backfilling in such a way that prevents damage to the pipe or preventative coating, and ensuring horizontal directional drilling (HDD) is conducted consistent with governmental regulations.

This part of the discussion sparked a bit of controversy. When a contractor in the audience took issue with the assertion that the "in-house" workforce is better equipped to address these issues, he was assured that "these problems are on both sides" (in-house and contractor personnel). The exchange highlighted the important point that oversight of all workers performing OQ covered tasks is imperative.

Contractors on the panel pointed out that pipeline inspectors sometimes lack first-hand knowledge of the areas they are inspecting, which can lead to calls for third-party inspection. This inevitably increases costs that are passed on to the consumer. All of this underscores the need for expertise, coordination and cooperation in the OQ process from start to finish.

Portability of OQ programs

The challenges of contractor compliance with different OQ programs maintained by their utility customers were a main reason to initiate joint DCA/AGA workshops in the first place. The conversation over OQ portability continued this year and included feedback from stakeholders nationwide.

A panel of gas utility and contractor representatives from the Northeast, Southern, Midwest and Western regions of the U.S. shared how stakeholders are working together to facilitate the process of contractors putting qualified people on the job without heading back to the OQ drawing board when working for different operators. There was general consensus that, for the most part, OQ compliance is an “80/20” ratio, meaning that methods to qualify 80 percent of covered tasks are basically portable from operator to operator. The rub is in complying with the range of OQ requirements to qualify workers for the remaining 20 percent of tasks, which normally include tasks related to fusions, tie-ins and dealing with liquids.

In the Northeast, panelists maintained that the underlying training which leads to OQ testing is the primary area of focus. The Northeast Gas Association has created an OQ Program that is accepted by the majority of the member organizations. The covered tasks and related OQ testing is developed and administered by the NGA. An online vendor provides the testing and qualification tracking. These areas are portable.

The one portability gap that will be tough to close involves individual owners’ “challenge tests” related to their internal Standard Operating Practices (SOPs). Until all the pipeline operators can agree on SOPs, this gap will be difficult to close. For now, it is very important that procedural differences are clearly communicated to the contractor community.

Representatives from the Midwest used an analogy of a driver’s license, saying that once drivers get one “they can drive anywhere; that’s where we need to go.” The Midwest Gas Association, which served on the original Negotiated Rulemaking Committee that developed the OQ regulation for DOT in the 1990s , points out that “portability was an issue early on,” and that increased scrutiny in the media and by regulators for a variety of reasons demonstrates the need for more consistency in programs to ensure a qualified pipeline workforce.

A contractor with extensive operations in the South said that many of his utility customers merge OQ elements, which enhances portability. He also suggested that industry consider pushing for the incorporation of ASME’s B31Q standard into the federal pipeline safety regulations. B31Q offers all key elements and may be as close to a national OQ model as possible, although it was pointed out that there are OQ issues not included in B31Q that need to be addressed.

In Florida, a nine-year effort to establish a statewide OQ plan is nearing completion. The initiative included 16 companies, the Florida Public Service Commission and the Florida Natural Gas Association. The plan mirrors the B31Q standard and covered task list. Under the Florida program, performance evaluations are done in-house, allowing contractors to bring their OQ programs from customer to customer.

The OQ dynamic in the West is different, in large part because of the limited number of gas distribution operators as well as the contractors doing the bulk of the construction work. A gas utility representative for the only operator in the Pacific Northwest shared that his company only uses one contractor. The operator does all the training and documentation so portability is a non-issue.

While the Western region is limited in the number of players involved in distribution construction, improving the OQ process remains an issue and stakeholders are meeting the challenge. In fact, DCA is helped to sponsor a Gas Utility and Contractor Forum hosted by the Western Energy Institute in Portland, OR, in June. The agenda includes presentations and breakout groups to evaluate current work practices, tracking, reporting and documentation, as well as ways to better align training and qualification efforts.

Cross Bore safety, mitigation

The persistent threat of cross bores continues to be a main safety concern of all stakeholders in the distribution construction industry. Annmarie Robertson, senior program manager at the Pipeline and Hazardous Materials Safety Administration (PHSMA), provided a thorough and effective update on industry and government efforts to reduce cross bores. Robertson is also a member of the Steering Committee of the Cross Bore Safety Association (CSBA), a broad-based group of government and industry stakeholders working to minimize the risk of injury, property damage and loss of life from utility cross bores through training, guidelines and other resources.

Defining a cross bore as the “unintended installation of a utility line by trenchless construction methods which damages an existing utility,” Robertson explained different types or “classes” of cross bore intersections and provided a chronology of real-life examples that demonstrate the potentially catastrophic results from cross bore situations.

There have been a variety of efforts and initiatives implemented by state governments as well as industry including requirements to locate sewer facilities, enhanced inspections of all intersections when engaged in HDD and implementation of “legacy” cross bore verification programs employed by many gas utilities across the country. Public awareness efforts such as “call before you clear” and “plumbers beware” are also effective in educating on the dangers of cross bores.

Still, challenges remain both in industry and government. State exemptions from the one-call process, gaps in data collection and dissemination and the costs to prevent and mitigate cross bore situations continue to hamper progress. Robertson described CBSA's new initiative to develop a "Leading Practices" document based on ANSI guidelines and information collected from more than 280 organizations. CSBA committees are currently working on assembling information on stakeholder awareness, construction practices, legacy cross bores, risk analysis, legal issues and data management. Robertson invited all interested parties to participate in the CSBA initiative and encouraged all to visit <http://crossboresafety.org/Leading%20Practices.htm> for more information.

HDD Training, education, practices

Following a discussion in 2014 of underlying reasons behind first- and second-party damages to gas distribution facilities and the suggestion that HDD was the primary cause, several stakeholders formed a panel to set the record straight. Contractors, equipment manufacturers and gas utilities provided a comprehensive overview of the training, education and preparation HDD operators undergo before being put on the job.

Although "HDD is nothing new," contractors on the panel highlighted the "dire need for safe and reliable HDD players and practices." Although contractors once battled the "roughneck mentality," today's quality HDD operators put safety first and then make sure they do the job right. Contractors said safety starts during the bidding process and emphasized the importance of safety being a primary part of their corporate culture. Close and careful observation of HDD workers by experienced personnel for extended time periods is a must before they are trusted to perform HDD on their own. Thorough knowledge of all equipment, technology and work environment issues such as varying soil conditions is imperative.

Panelists also emphasized that while classroom and computer training can be effective, "concepts must be implemented." There is no substitute for field training under real-life circumstances. In fact, contractors on the HDD panel indicated that their pre-qualification process included training on all tools used in trenchless operations.

Close cooperation is critical, including pre-planning with contractors, utilities and other key stakeholders. Inviting local officials to participate in planning was encouraged, including municipal authorities that operate sewer systems, where unmarked sewer laterals can be the main cause of dangerous cross bores occurring in trenchless excavations.

Jon Heinen, the co-chair of DCA's HDD Committee, highlighted the concepts included in a position paper recently developed by DCA and disseminated to industry groups as well as federal, state and local government entities. The position paper describes practices to be performed and responsibilities to be met by both contractors and the utilities in order to

collectively reduce and mitigate cross bores. The paper also suggests legislative and regulatory action needed by state governments to reduce the common problems associated with unmarked sewer laterals, as well as language to be considered by Congress in this year's pipeline safety reauthorization.

A utility representative on the panel reiterated the problems of unmarked sewer service laterals and provided a personal anecdote regarding a cross bore situation he experienced while engaged in HDD, which resulted in temporary but significant changes in operations. Soon after, the company implemented camera inspection policies related to HDD operations.

One operator in the audience encouraged fellow gas utilities to perform risk assessments that include job-specific considerations (i.e. possible cross bore situations), and to get to know and partner with the HDD contractors they use. The operator also encouraged contractors to invite utility personnel to observe and participate in an HDD project. This collaborative approach will enhance cooperation on both sides while providing an overall safer work environment.

The panel was asked how decisions are made regarding practical use of HDD versus when it was "too expensive." Stakeholders agreed that trenchless excavation is almost always considered in today's gas distribution market due to its positive impacts on safety, the environment and overall quality of life because of the non-intrusive nature of the practice.

In the end, all panelists agreed that when roles and responsibilities are met, HDD and other trenchless excavation is a safe, environmentally friendly and economically sound method of gas distribution construction, and one that is quickly becoming standard industry practice.

New inspection regulation for construction

A recent PHMSA final rule entitled "Miscellaneous Changes to the Pipeline Safety Regulations" and issued in March 2015 includes language that limits personnel involved with main or transmission pipeline construction from post-construction inspections required under 49 CFR 192.305 on any construction task they performed. The inspection now has to be performed by operator employees or other contractor employees who were not involved with the particular activity being inspected. The rule change stems from a 2010 petition by the National Association of Pipeline Safety Representatives (NAPSR) and has a compliance date of Oct. 1, 2015.

Two gas utility representatives described the general requirements of their respective inspection programs, focusing on the individuals doing the inspection. One operator said it takes 10 years of work experience before an individual is even considered qualified to serve as an inspector and because of that, they have a "handle on in-house crews." Both operators said their inspectors are "OQ qualified."

Contractors in the audience said that, for the most part, the work performed by gas distribution contractors is inspected by others working for the contractors and/or by the gas utility. Both contractors and utilities were encouraged to communicate on the inspection rule and any changes or considerations that should be discussed before the compliance date.

Because of the confusion related to the new inspection rule and its implementation, AGA requested PHMSA to delay the implementation date from Oct. 1, 2015 to Jan. 1, 2016.

Plans for 2016 Workshop

The Second Annual DCA/AGA Workshop proved to be an effective forum where gas utilities and contractors could openly discuss important issues facing the gas distribution industry. Feedback from attendees indicated a desire to continue these joint workshops, in large part because of the tremendous amount of work on the horizon. Energy development and transportation will continue to drive the U.S. economy, and gas distribution industry leaders must make sure there are enough of the right people to meet the need.

The DCA has scheduled the next workshop for April 5 – 6, 2016, at the Ritz-Carlton Chicago. For question regarding the workshop or any other DCA/AGA initiatives, please contact the DCA at 972-680-0261 or www.dcaweb.org.