

Programs Grow To Eliminate Crossbores

Progress in Efforts to Eliminate Crossbores was the topic of one of the presentations in the Damage Prevention and Safety track at the 2013 Underground Construction Technology International Conference & Exhibition.

Crossbores — inadvertent installations of gas or power cable through a sewer lateral — are an ongoing concern of utility providers and contractors.

In this session, Greg Scoby, P.E., vice president of Frontline Energy Services, described a proactive, highly successful program used by the city of Palo Alto, CA, to identify gas lines that have penetrated sewer laterals during installation by horizontal directional drilling (HDD) and to correct the problems before a costly and dangerous accident can occur. Scoby previously was engineering manager for Palo Alto's city-operated utilities.

A separate city program requires closed-circuit television (CCTV) inspection of a lateral any time an HDD installation has been made nearby to confirm no crossbore has occurred.

Scoby made clear that Palo Alto's program to identify crossbores was facilitated by the fact that the city owns gas, sewer, water and electric utilities, a situation not found in most U.S. cities.

Even so, Scoby said he believes similar programs can be effectively implemented when multi-service providers are involved and Frontline Energy is actively assisting clients with crossbore elimination programs. The Palo Alto program has generated interest among other cities and Scoby has been busy answering questions, making presentations and meeting with representatives of cities and gas service providers.

"I usually start by meeting with the local gas operator and gauging their program to address the crossbore issue," Scoby said. "With cooperation of the various parties involved, the crossbore problem can be turned into a win-win situation."

Trenchless risk

Citing the Palo Alto program, Scoby said crossbores found during inspections were associated with trenchless construction methods utilized to install gas systems.

"If the local gas operator has not used these trenchless construction methods, risks of crossbores could be minimal," he continued. "If gas lines have been installed by trenchless methods, it could be possible for

the local utility agency to work with the gas operator to conduct system assessments and address crossbores that are identified."

Such programs address legacy crossbores. A related but separate issue is preventing future crossbores.

Scoby believes both efforts are being facilitated by the Distribution Integrity Management Programs (DIMP) program adopted by Pipeline and Hazardous Materials Safety Administration (PHMSA) in 2011 which requires gas operators to categorize and evaluate risks associated with their systems.

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Multiple efforts are needed to prevent crossbores from occurring. Scoby said such efforts include establishing working relationships among local governments, sewer agencies and gas providers, specify a data collection system, identify locations for inspection, preparing a pilot program identifying risks and modify construction practices to minimize the risk of future cross bores. An important element in the success of such efforts is a public awareness campaign directed to customers, plumbers, draining cleaners and rental companies to call the local gas provider before attempting to clear drain blockages.



Greg Scoby, P.E.

"I believe the adoption of DIMP will increase crossbore investigations for gas operators who have employed trenchless construction methods in the past," Scoby said.

"Hopefully, wastewater collection

system operators will partner with their local gas company and work to facilitate these inspections to the benefit of all involved parties."

Regarding construction procedures, Scoby emphasizes that proactive pre-locating is a stop in preventing crossbores and damage to all utilities.

Best ID

During construction, the one certain way to determine a lateral or any utility's precise location is to uncover and visibly identify it. Being uncovered also allows crew members to verify and the HDD drill bit has not hit or penetrated the pipe.

"Locating by potholing can be costly and involved parties often don't want to pay," Scoby said.

"It's a balancing act," he continued. "Not verifying locations increases risks of crossbores. Ultimately, there has to be a change in mindset — that a new gas line won't be energized until it's known to be 'clean'."

While coordinating legacy crossbore programs and modifying construction methods is a complex undertaking, Scoby said progress is being made.

"In addition to Palo Alto, Duke Energy requires 100 percent post-construction video inspection prior to introducing gas to newly constructed lines," he said. "Southwest Gas, Excel Energy, Southern California Gas and Pacific Gas & Electric all have SLIP (sewer line inspection programs)."

Based in Walnut Creek, CA, Frontline Energy Services is currently managing one of the largest crossbore safety programs in the country. This project consists of back office research, CCTV of sewer laterals, PACP and LACP coding, custom reporting, GIS mapping and more. This project inspects between 35,000 and 40,000 sewer laterals per year, with an estimated total lateral count of more than four million that may need to be reviewed.

FOR MORE INFO:

Frontline Energy Services,
frontline-energy.com