

Cross Bores Best Practices Education and Outreach

As a follow-on project that resulted in the development of a Cross Bore Best Practices Guide, an education and outreach program was initiated to inform the natural gas industry and other groups on the results of research and ways to reduce risk.



Project Description

Cross bores have become an industry concern because of incidents involving natural gas mains and services that were installed using trenchless technology that inadvertently transected a sewer line or private septic system. Typical sewer-cleaning operations use a device that can pierce the gas line, resulting in the rapid release of gas.

To assist utilities in addressing cross-bore safety issues, a Cross Bore Best Practices Guide was developed through OTD to serve as a single source of information that could be used by natural gas distribution system operators to investigate and remediate existing cross bores as well as prevent future cross bores. The guide can be used by operators to educate internal personnel and the public about cross bores. The guide provides methodologies, technology recommendations, and procedures for preventing and detecting cross bores.

This follow-on project involved the development of an outreach program to raise awareness and streamline implementation of cross bore best practices with natural gas system operators, other utility operators, the sewer and plumbing industry, contractors, homeowners and the general public.

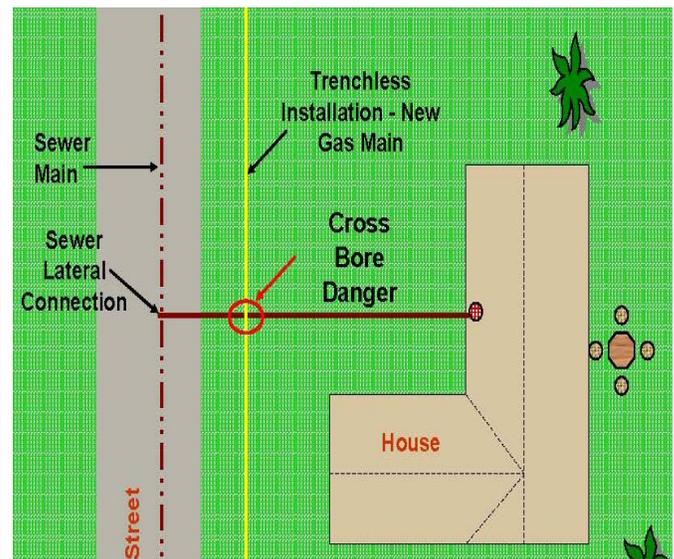
Deliverables

Deliverables include:

- Presentations at industry conferences
- Outreach information in a variety of formats
- Distribution of the Cross Bore Best Practices Guide
- Website links
- Downloadable information
- Webinars
- “How To” videos of selected best practices.

Benefits

Information presented through this project can be used by gas-system operators to reduce their risk and exposure to the threat of cross bores.



A cross bore is defined as an intersection of an existing underground utility or underground structure by a second utility installed using trenchless technology resulting in direct contact between the transactions of the utilities compromising the integrity of either utility or underground structure.

Technical Concept & Approach

The development of this Cross Bore Best Practices Guide included the review of information from a wide variety of sources across North America, including numerous natural gas distribution companies, installation contractors, remediation contractors, equipment providers, industry associations, and industry literature. The combined customer base of the 23 gas companies interviewed represent 80% of the 75 million natural gas customers in the United States and Canada.

Information regarding state or city-specific rules and regulations were also collected.

The goal of the education and outreach program is to make the industry aware of the availability of the Best Practices Guide, emphasize the importance of the topic, and provide information on the ability to improve safety.

Results

In 2013 and 2014, information on cross bores research was presented at various conferences and industry meetings, including the:

- SGA Public Awareness and Cross Bore Best Practices Workshop
- Western Regional Gas Conference
- Northeast Gas Association Fall Operations Conference
- Midwest Energy Association Fall Gas Distribution Learning Summit
- KGA Operations Conference.

Industry webinars were also presented.

Plans are under way with the Cross Bore Safety Association and OTD to coordinate the appearance of links between their websites.

The preparation of three “How To” videos was completed. The audience and the topics for each video are:

- Plumbers – how to safely investigate a clogged sewer
- Homeowner – how to safely decide if they should clear a clogged sewer

- Field Crews – how to safely install a gas main/service using trenchless technology.

Information developed through this project is available to all interested parties through the OTD website (otd-co.org).

Special handouts and tailgate briefing cards were prepared to provide easy reference. Information was supplemented with YouTube videos, reports, and other information.

Status

The research team is addressing a number of specific issues related to cross bores, including:

- Sewer Operator Fixing Cross Bores and Then Billing Utility
- Sewer Company Cleared Cross Bores Then Called Due to Leaks
- Sewer Line Notched to go Around Gas Line
- New Line Inserted in Old Line – Old Line was a Cross Bore
- Public Awareness Programs
- Plumber Issues (e.g., codes)
- Inclusion in Fire Marshals Training Program for Pipeline Emergencies
- Guide Stops Prior to – “Best Practices in an Emergency Response”
- Mock Drills – Up to Four Times/Year
- Manhole Cover Grounding
- Inflatable Ball to Stop Gas Flow.

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