## **GTI Provides Training in Keyhole Operations**

As trenchless and other alternative construction techniques increase in popularity, Gas Technology Institute (GTI) is offering increased training in keyhole technology operations for utilities and their contractors.

In July 2013, GTI conducted a keyhole training pilot program created in response to needs identified by the GTI Keyhole Consortium. Efforts at are being made to document keyhole processes and tooling and provide training support in various areas.

The keyhole training pilot program was developed with the help of trainers and operating crews from local utilities who perform the keyhole processes. The content of the program featured knowledge

reviews and hands-on practice for four field processes that included the use of keyhole technologies and various above-ground tools:

- Service Retirement Cast-iron mains with a cast-iron or steel service (less than 2 psig)
- Service Retirement Steel mains with a "U" bolt saddle and a cast-iron service tee (10 to 100 psig)
- Service Retirement Steel mains with Mueller welded service tee with no completion plug (10 to 100 psig)
- Service Renewal Steel mains with a "U" bolt saddle replacing a cast-iron service tee with a steel-to-plastic service tee with a stab-type service connection (10 to 100 psig).



"The primary finding from the pilot was that training can and should be customized for each organization based on the processes they perform," notes Vanessa O'Neil, GTI Training Program Administrator. "We plan on offering more training opportunities related to trenchless technologies and provide them to meet specific company needs."

GTI's Education Group can also offer hands-on skill development training to qualify individuals to perform anode installation, the coring/reinstatement

procedures, and other keyhole-related tasks. The training also involves following companyspecific protocols in order to qualify under a

particular utility's standards and practices.

Training materials for the four processes included in the pilot program are available upon request. Additional processes – as well as basic keyhole operations such as coring, vacuum excavation, coring restoration, and others – will be developed and implemented through specific requests.

To receive training materials for these processes and/or make requests for other processes or keyhole basic operations, contact: Vanessa O'Neil at 847-768-0560 or Dennis Jarnecke, GTI Keyhole Program Director at 847-768-0943.



