

## JANUARY, 2010 MEETING

Wednesday, January 13, 2010

### TECHNICAL PROGRAM

#### Trenchless Technology

**Speaker:** Bret Gowens with Boring & Tunneling Co. of America, Inc. Houston TX, Tel. 713-799-1200

Bret Gowens is the Vice President and Chief Estimator for Boring & Tunneling Company of America, Inc. He has worked in the trenchless technology industry for over eight years. Mr. Gowens is a Graduate of Abilene Christian University and he has earned an MBA from the University of Houston in 2003.

#### PRESENTATION SUMMARY

To an audience of about 85 at the HESS Club, Mr. Gowens gave a slide presentation titled, "Trenchless Technology Workshop".

Mr. Gowens introduced the topic by defining Trenchless Technology as being that which is used to install pipes in the ground, typically under existing infrastructure or buildings, without open trenching. He further stated that this technology is routinely used to install pipes of varying materials, with pipe sizes ranging from about one inch to over sixty inches. Such installations are typically used for both new construction and rehabilitation of existing pipe lines.



Design and use of "Trenchless Technology" typically includes consideration of seven variables:

- Product - What is being conveyed
- Piping material
- Pipe size
- Distance - Length of line to be installed
- Ground conditions - Classifications of soils
- Ground cover - Depth to which the pipe is to be installed
- Motivation - Why is the method being considered

Mr. Gowens then discussed various Trenchless Technology methods:

- Slurry Boring - Sometimes called "wet" or "slick" boring - the use of a drilling fluid when boring (drilling) the hole into which the pipe is to be installed
- Horizontal Directional Drilling - Evolution of slurry boring, with the hole drilled from "surface to surface"
- Pilot Tube - Boring from "launching shaft" to "receiving shaft" using a rotating auger
- Dry Auger Boring - Installation of a Liner in the hole as it is drilled using a "dry auger"
- Pipe Jacking - Pushing pipe sections into the hole being bored
- Two Pass Tunneling - Installation of a liner in the bored hole before installation of the carrier pipe
- Liner Plate method
- Rib and lagging segment method
- Rock bolt method
- Wood box method

In closing, Mr. Gowens briefly discussed pricing, which is included in the last few slides of his slide presentation. He also said that in the 60 years they have been in business, his company has only lost two workers. He said the tunnel is the safest place to be in their business. The access shafts are the more likely places to be injured.

To download Mr. Gowens' slide presentation, [click here](#).