

FFT Secure Pipe™ Case Study – NYSEARCH (USA)

The Office of Pipeline Safety (OPS) identified that the majority of pipeline incidents are caused by “damage by outside force”.

Property damages alone for over 300,000 miles of transmission pipe in the U.S. can cost operators millions of dollars annually. The ability to detect construction equipment encroaching upon a right-of-way or excavating near a gas pipeline would greatly reduce third-party damage from excavation and construction equipment.



This being a high priority area, NYSEARCH installed an FFT Secure Pipe™ system in 2003 along a high pressure gas pipeline at a test site in New Jersey, USA to provide operators sufficient advance notice that an unauthorised vehicle or activity was too close to their pipeline.

Key requirements of this installation included:

- The ability to protect up to 25 miles (40km) of buried pipeline with a single system
- High sensitivity, yet no nuisance alarms generated by road crossings and railway lines, residential and commercial areas in close proximity to pipeline
- Accurate location of intrusion points
- The delivery of alarms and alarm information in real-time, as they actually occur
- No electronics or power required in the field



After extensive and long term field testing, a senior researcher concluded;

“The PSE&G test site in New Jersey has been in place for over two years and has experienced many field tests using many types of excavating equipment. During that time, FFT has been able to resolve all site and system related problems, to the point, where the system is providing reliable and accurate locate data (well within 150 meters). We believe

that the PSE&G site offers a wide range of diversity including soft and rocky soils, trafficked roadways, residential/commercial districts, unusually deep HDD sections and is probably one of the most difficult and challenging sites that Secure Pipe will encounter. To date, no nuisance alarms have been produced by nearby excavating equipment. Yet the system sensitivity is such that many alarms recorded are caused by pipeline survey and other vehicles driving over the cable. NYSEARCH believes that this technology is critical to safe guard our pipelines and to assure the integrity of our natural gas pipelines”.