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NYSEARCH spotlight

Dedicated to serving its utility member companies with focus on natural gas R&D, technology development & commercialization, and joint industry collaboration

Assessing amorphous metal tape in application for PE pipe location

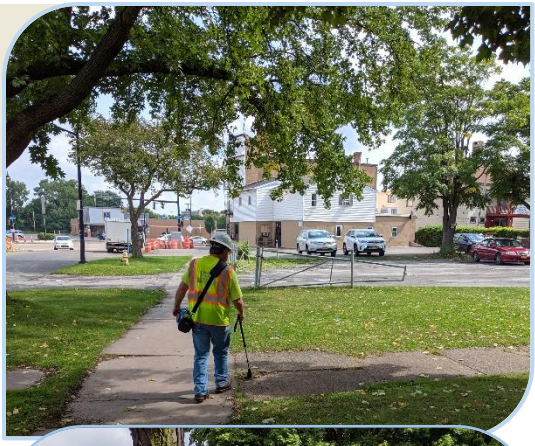
Field installations of MetGlas® were successfully completed in Buffalo, NY a part of National Fuel Gas territory to evaluate amorphous metal tape as a practical application for PE pipe location

In August 2019, NYSEARCH project manager, Gautam Kakaiya traveled to Buffalo, NY to facilitate the first install of MetGlas® tape alongside distribution infrastructure in the National Fuel Gas territory. The objectives of this project are to: 1) develop the potential amorphous metal application for practical use in locating PE pip and, 2) test the application in a variety of LDC underground field test conditions for full evaluation of the potential of this product. NYSEARCH members aided in product specification development of the amorphous metal tape and MetGlas® procured the materials, laminated, and assembled the final product to be installed in the field. Based on the data acquired from National Fuel Gas' install, MetGlas® is refining installation configurations on which will provide the best detectability results. Additionally, MetGlas® is also working with Southwest Research Institute to conduct lifetime testing. Further field installations are being planned.

GasComm™ updates are complete

As of October 2019, the GasComm™ units installed at member utilities have all been upgraded with new software and hardware that resolved volumetric flow readings. The photos on the left are from the final install of the updated GasComm™ at Dominion Energy Utah. The GasComm™ unit has been collecting integral points of distribution data including temperature, humidity, flow rate, and pressure. Each utility has access to this data from a secure online database. Enetics has fully developed and commercialized the GasComm™ system and the technology is now available to the whole industry.

Double-blind RMLD testing completed in New York with member utilities



Through the summer of 2019 to November 2019, controlled testing was completed at National Grid's training facility (pictured below) and double-blind field tests at NYSEG, CHG & E and ConEdison have been completed. The overall objective of the double-blind RMLD test project is to develop information that establishes the performance of RMLD and whether its performance is equivalent to other leak survey tools. The project objectives are twofold: 1) to plan and conduct tests in such a manner so that specific uses of the RMLD can be demonstrated through one or more blind tests and then compared to established technologies (such as FI and DPIR) in the same blind test(s) as used by experienced operators and, 2) to work collaboratively to recommend the use cases for regulatory approval. The data should provide a quality comparison to established methods such as FI and DPIR. Furthermore, a favorable report following this program combined with NGA's petition for NY PSC regulatory acceptance could guide a process for new technology acceptance and help NY LDC's with implementation of new innovations.

Comparative testing of quantitative gas optical imaging system QL320 completed at SoCalGas

The overall test program focuses on evaluating the current MultiSensor (MSS) non-thermal imaging prototype for underground distribution leaks. This comparative testing provides more information to evaluate the value of the MSS system.

In October 2019, NYSEARCH facilitated a field demonstration of the QL320 system with Providence Photonics. The demonstration was completed at the SoCalGas training facility, Situation City, located in Pico Rivera, CA. This demonstration tested the capabilities of the FLIR GF320 camera in conjunction with the quantification model, QL320, developed separately by Providence Photonics. The imaging camera developed by FLIR uses high thermal differentials that result in a measurable change in the radiation absorption spectrum. This imaging system requires an adequate temperature differential between the gas and the background spot (where the leak has been located) to determine a quantification measurement and produce a high-quality image. Per the manufacturer, this thermal imaging camera has not been fully evaluated at leak rates < 10 SCFH. In the two days of controlled testing, the test activities were intended to confirm the presence of various leaks at flow rates greater than 0.5 SCFH. The photos show the FLIR QL320 imaging system developed by Providence Photonics. A field report with results and analysis is currently being compiled for NYSEARCH funders.

NYSEARCH is Expanding Congratulations Jags!

NYSEARCH celebrated the coming of a new addition at the Parsippany, NJ office with Jagruti Mehta. Our fine assistant Wendy Hansen (second from left, in front of Joe Mallia), planned a baby shower to welcome Jagruti's first baby girl into the world. Jags is expecting in early December.