IRVING, Texas – September 23, 2019 – The Plastics Pipe Institute, Inc. (PPI) has published a new document that provides an overview of non-destructive testing and evaluation techniques that have been introduced into the plastic pipe industry. Included in TN-60, *Inspection of Plastic Pipes, Fittings and Joints Using Non-Destructive Test Methods and Evaluation*, are sections about research, NDT/NDE considerations, inspector qualification and evaluation procedures. It is available for free at the PPI webpage: https://plasticpipe.org/publications/technical-notes.html.

“This is the first document of its kind for our industry,” stated Sarah Patterson, technical director of PPI. “The goal of TN-60 is to bring awareness to a number of factors when using NDT for the inspection of plastic pipes, fittings and joints, while emphasizing that careful due diligence is needed when selecting an NDT technology and inspection team. There is a high degree of complexity in reading the scans from an NDT inspection. It is analogous to a medical x-ray. While a qualified technician can take the x-ray, a board-certified radiologist medical doctor is the one to review the results and provide the analysis.”

Interest in the topic, according to PPI, has gained considerable momentum during the past several years. “In 2016 (Berlin), NDT was added to the Plastic Pipes Conference
Association (PPCA) conference agenda,” explained Patterson, “and was attended by a record number of industry professionals from around the world. More than 100 people participated to hear the seven papers from firms located in six countries and join in the one-hour panel discussion.

"The reason for the high interest in the NDT session was because for nearly 25 years, NDT was done by individual firms. Now, the technology has made its way into the standards organization for the inspection of plastic pipes, fittings and joints. This session provided a forum for the two industries, NDT and plastic pipe, to discuss the technologies as well as methodologies being proposed for acceptance criteria."

Presentations examined NDT technologies, inspection methods, detection of any indications in butt fusion and electrofusion joints and ways to determine if an indication is actually a defect.

Members of the Energy Piping Systems Division (EPSD) of PPI are involved in gas distribution, and oil and gas gathering. “The EPSD group and the industry itself have had quite a lot of interest in NDT technologies during the past few years,” stated Randy Knapp, Ph.D., engineering director of the EPSD. “It is important for the industry to know about NDT and NDE. This PPI document and PPI’s continuing involvement will play an important role in moving these non-destructive processes forward responsibly. TN-60 will be emphasized during any presentations we make and especially at the AGA meetings we attend.”

"PPI created an NDT task group in late 2015," Patterson continued, "where we, like our other PPI committees and groups, investigate best practices and data in order to provide guidance to the industry for the use of NDT methods for the inspection of plastic pipes and fittings.

“At this time, PPI has not established a position on the use of NDT inspection for plastic pipe, fittings or joints as the maturity of the technology and related inspection practices"
vary significantly. We will continue to monitor and actively participate with the NDT industry as it develops these technologies, which show promise.”

For additional information, go to the Plastics Pipe Institute’s website at:


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The new PPI TN-60 report discusses non-destructive testing methods such as this field inspection of the fused joint of two sections of 24-inch diameter DR9 PE 4710 pipe using the Evisive MW Band Scanner. Photo courtesy of Evisive.

Phased array ultrasonic inspection of butt fusion joint in PE gas pipe using TWI’s PolyTest system. Photo courtesy of TWI Ltd.

About PPI:
The Plastics Pipe Institute, Inc. (PPI) is the major North American trade association representing all segments of the plastic pipe industry and is dedicated to promoting plastic as the materials of choice for pipe and conduit applications. PPI is the premier technical, engineering and industry knowledge resource publishing data for use in the development and design of plastic pipe and conduit systems. Additionally, PPI collaborates with industry organizations that set standards for manufacturing practices and installation methods.