

TENNESSEE REGULATORY AUTHORITY



502 Deaderick Street, 4th Floor
Nashville, Tennessee 37243

SAFETY ADVISORY NOTICE

To: All Tennessee Natural Gas Operators

From: Annette S. Ponds, PE – Chief, Gas Pipeline Safety Division *ASPD*

Date: March 30, 2017 – Delivered Via Certified USPS Mail and Email

Subject: INSTALLATION OF PE PIPELINE BY ELECTROFUSION

The Tennessee Regulatory Authority Gas Pipeline Safety Division is issuing this safety advisory notice effective immediately to all Tennessee natural gas operators regarding installation of PE pipeline by electrofusion.

There have been four (4) instances in the past nine months of equipment failure during electrofusion of tapping tees on pipeline resulting in potential safety issues to operator employees and the general public. One case resulted in an incident with employee injury and destruction of a newly constructed house. In these cases, different operators, electrofusion machines, and tapping tees were involved. In all cases, burn-through of the tee occurred. In two cases, burn-through of the tee and the main occurred.

The following equipment was involved in the situations:

George Fischer Central Plastics B.O.S.S. III, with EF Technologies electrofusion processor, with fusion on 2-inch and 1.75-inch Central Plastics tapping tees – this machine was battery operated – in the two cases complete burn-through of the tee and main occurred. Calibration was conducted by EF Technologies

IPEX Genesis F3, with fusion on a 4-inch MTD Tri Fusion EF tapping tee – this machine was not battery operated – in the two cases complete burn-through of the tee occurred but no burn-through of the main occurred. Calibration was conducted by EF Technologies.

The Gas Pipeline Safety Division will take possession of equipment used in these situations for investigation by an independent forensic contractor. Testing will be conducted to attempt to determine the cause(s) of failure(s) of the equipment. There may be some component parts in common that may also be present in electrofusion equipment from different manufacturers being used by operators throughout our state. One operator involved in these incidents has modified their procedures to prohibit personnel from being in the excavation during electrofusion, the other has completely discontinued use of electrofusion.

UNTIL ADDITIONAL TESTING CAN BE COMPLETED TO FURTHER EVALUATE THE SAFE USE OF ELECTROFUSION ON NATURAL GAS SYSTEMS, PLEASE TAKE THE APPROPRIATE ACTIONS TO ENSURE THE SAFETY OF YOUR PERSONNEL DURING ELECTROFUSION AND BE AWARE THAT THE GENERAL PUBLIC MAY ALSO BE AT RISK WITH CONTINUED USE OF ELECTROFUSION.