TR 21-34 – Inserted PE through Metallic Valves

TR Number	2021-34
Primary Reference	§§192.321(f), 192.727
Purpose	Review and revise GM as appropriate to properly abandon valves particularly for
	inserted plastic pipe
Origin/Rationale	Gas leak in Lawrence, MA on September 27, 2019
Notes	One year after the Merrimack Valley overpressurization, a water department
	contractor was raising valves in preparation for paving. Believing an old gas valve to
	be a water valve they shut it off, severing the plastic main which had been inserted
	in 2018. The leak was not detected until about 3:00 AM the next day. No deaths,
	injuries, explosions or fires occurred.
Assigned to	Design TG

Section 192.321

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3 PLASTIC PIPE INSERTED INTO A CASING OR INTO AN ABANDONED PIPELINE

- 3.1 General.
 - (a) The casing or abandoned pipeline should be prepared to the extent necessary to remove any sharp edges, projections, dust, welding slag, or abrasive material which could damage the plastic during or after insertion. A camera inspection may be performed to assess the conditions inside the casing or abandoned pipeline.
 - (b) Prior to inserting plastic pipe into an abandoned pipeline, existing offsets, drips, valves that are not full-port, valves that don't fully open, branch connections, obstructions, or projections into the abandoned pipeline should be removed.
 - (c) Drips, valves, or purges that are abandoned should have their access boxes removed or filled with concrete or other hard-to-remove substance to prevent unintentional damage to the inserted plastic pipe. Purge risers or drip standpipes projecting from the abandoned pipeline should be cut off at, or as near as practicable to, the abandoned pipe. An abandoned valve with plastic pipe inserted through it should be made inoperable.
 - (<u>d</u>-b) A support sleeve or plug should be used to prevent the plastic pipe from bearing on the end of the casing or abandoned pipeline.
 - (e) Methods for closing the leading end of the pipe include the use of a pipe cap or adhesive tape.
 - (f) The leading-edge cap and piping, and the total length of exposed pipe, should be inspected for damage. The total length of exposed pipe should be inspected for damage. If damage is discovered, the pipe should be pulled until an undamaged portion of the pipe is revealed.
 - (g-c) Maps or other records should indicate plastic pipe that is inserted in a casing or an abandoned pipeline.
 - (<u>h-d</u>) A means of locating inserted plastic pipe should be provided (see 2.4 and 2.5 above).
- 3.2 Special considerations.