

TR 20-11 Communication of Abandoned Pipeline

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TR Number	20-11
Primary Reference	192.603
Secondary Reference	192.605, 192.614, 192.616, GMA G-192-6
Purpose	Review guide material to consider enhancements related to locating procedures, records, and communication to excavators regarding abandoned pipelines such as: - Communication of possible abandoned and live facilities in the same vicinity - Messaging excavators that exposed facility may not be the only facility.
Origin/Rationale	On September 8, 2017 an incident occurred in Westfield, Indiana where a gas line was struck during a directional drilling operation. The contractor performing the work had exposed a pipe near the single gas locate mark but this turned out to be an abandoned line. The active line, which was struck was a short distance away had not been exposed. There was also a third pipe in the vicinity.
Assigned to	DP/ER TG

Note: Revisions are shown in **yellow highlight** and **red font**.

Section 192.614

Note: Section 192.616 requires most operators to develop and implement a written continuing public education program that follows the guidance provided in API RP 1162 for identifying and notifying excavators and the affected public about damage prevention. These identification and notification activities are required by §192.614. Guide material for these program activities is provided in 2.3, 2.4, and 2.5 below.

1 SCOPE

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2 WRITTEN PROGRAM

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2.5 Information to be communicated.

Entities that may engage in excavation activities should be informed of the purpose of the program, how they can learn the location of underground pipelines before commencing excavation activities, and actions to be taken if the pipeline or its related components, such as tracer wire, warning tape, and passive locating devices, are hit or damaged. Illustrations or pictures of the various types of pipeline locations should be included. Program information should also advise that even minor residential activities, such as installing fences or performing landscaping, could cause pipeline damage.

(a) The programs and methods of informing entities that may perform excavation activity as described in 2.4 above should be designed to educate excavators about their obligations under applicable state laws and regulations, including the following.

- (1) How to provide notice of intent to dig, emphasizing the importance of using a one-call notification system (e.g., 811), where applicable.
- (2) How far in advance of excavation activity must the notice of intent to dig be provided.
- (3) Waiting the required time to allow operators to mark their facilities.
- (4) Verifying the location of facilities by hand digging test holes.
- (5) Support and protection of exposed facilities.
- (6) Minimum clearances of powered equipment from facilities.
- (7) Preservation of markings.
- (8) Pipe support, backfill, and compaction requirements.
- (9) Reporting discovery of unknown **or unmarked** underground facilities.
- (10) Reporting damages or emergencies. See §192.616.
- (11) Pre-marking the excavation area with white paint.
- (12) Avoidance of disturbing cast iron facilities.
- (13) Safe excavation, support, and backfilling requirements unique to cast iron facilities.

(b) ...

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2.7 Responding to excavation notification.

- (a) Preparation. The operator should develop procedures for responding to notifications of intent to excavate. Consideration should be given to the following.
 - (1) How information about the location of existing and newly installed facilities may be obtained from maps, records, digital or aerial imagery, or field investigation. If the operator's records include GPS coordinates, the reference datum and nomenclature to be used should be clearly documented.
 - (2) How individuals responding to excavation notifications can have access to up-to-date pipeline alignment and as-built drawings.
 - (3) Standards for marking facilities consistent with the field conditions, including items such as the use of paint on paved areas and stakes, and signs or flags in unpaved areas. A reference for marking facilities is the Common Ground Alliance's "Best Practices" Guide, available at <https://commongroundalliance.com/best-practices-guide>.
 - (4) Availability of personnel who are qualified (see Subpart N) to mark facilities as necessary.
 - (5) The potential for facility markings to become obscured prior to, or during, excavation activity and appropriate action to be taken.
 - (6) Whether a response to the excavator should be made when the operator has no facilities or knowledge of abandoned facilities located in the area of excavation activity. The operator should also review state and local regulations to determine if other response requirements apply.
- (b) Response. Where facilities exist in the area of excavation activity, the operator should respond to the notification prior to the planned start of the excavation activity. The operator should consider documenting the response. The response should include the following.
 - (1) Marking the operator's pipeline facilities, including laterals, in the area of the proposed excavation activity. In areas where the pipeline facilities are curved or make sharp bends, consider the visibility and frequency of markings. Individually mark pipeline facilities located in the same trench or right-of-way. If metallic facilities are exposed during locating activities, see guide material under §192.459.
 - (2) Conducting an onsite meeting if there is potential for misunderstanding concerning the location of facilities or the procedure for marking.
 - (3) Reviewing for accuracy any maps, drawings, or records supplied to an excavator to assist in locating underground facilities or abandoned facilities when known. Unless field checked, it is suggested that they be marked with a note such as "Not responsible for accuracy, verify by hand digging."
 - (4) ...
- (c) Records. Operators should document their responses to excavation notifications.

GMA G-192-6

GUIDE MATERIAL APPENDIX G-192-6

(See guide material under §§192.319, 192.321, 192.361, 192.614, and Guide Material Appendices G-192-13, G-192-15A, and G-192-15B)

SUBSTRUCTURE DAMAGE PREVENTION GUIDELINES FOR DIRECTIONAL DRILLING AND OTHER TRENCHLESS TECHNOLOGIES

1 SCOPE

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2 DAMAGE PREVENTION WHEN INSTALLING FACILITIES

Precautions should be taken when installing gas facilities by directional drilling or other trenchless technologies, which may include the following.

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- (a) Using available one-call notification system(s) to have facilities within the immediate area located and marked; and directly contacting known, non-participating utility owners for locations of their facilities.
- (b) Ensuring that known facilities are located and marked prior to commencing work.
- (c) Exposing facilities within the immediate work area by hand excavation before starting a bore if the depths of the facilities are not established by other means.
- (d) Considering sewer systems within the area, which are especially vulnerable to damage from cross bore for the following reasons.
 - (1) Sewer lines are often non-metallic, which make them difficult to locate.
 - (2) Clean-outs or other indications of sewer laterals may be hidden or non-existent.
 - (3) A cross bore condition may not be readily apparent when a sewer, particularly a gravity flow system, is compromised.(See OTD-12/0003, "Cross Bore Best Practices – Best Practices Guide.")
- (e) Notifying residences and businesses in the area of impending work.
- (f) Checking local regulations for the minimum separation distances between the new gas piping and the other facilities.
- (g) Making arrangements with local authorities for traffic control, as necessary.
- (h) Ensuring adequate clearance of overhead electric, telephone, or cable lines from construction equipment.
- (i) Reviewing precautions recommended by manufacturers of trenchless technology equipment prior to construction.
- (j) Following applicable state and local requirements for damage prevention.
- (k) Indicating abandoned facilities differently from active facilities to reduce confusion or the likelihood an active facility is mistaken for an abandoned facility.

3 PROTECTING EXISTING GAS FACILITIES

When either an operator or a third party shall excavate near an existing gas facility by directional drilling or using other trenchless technologies, the operator should consider the following.

- (a) Where it is anticipated that the bore will cross an existing facility, or come within a safety zone (as established by the operator or a jurisdictional regulatory agency), expose that facility to determine its precise location to ensure adequate separation between the existing and proposed facilities.
- (b) Where the bore will run parallel to an existing facility, expose that facility (pothole) or use locating technology to verify that adequate clearance is maintained between the bore and the existing facility during the boring operation, which includes the drilling of the pilot hole and back reaming. Calculation of the separation distance should account for the largest diameter back reamer that will be used in the boring process.
- (c) Potholes used for visual inspection should be excavated at intervals ensuring clearance is maintained during boring operations. Factors to consider for pothole intervals include the following.
 - (1) Proximity of proposed bore path to the existing gas facilities.
 - (2) Type of existing and proposed facilities.
 - (3) Type of soil.
 - (4) Size and controllability of the bore.
- (d) Locating existing facilities and the newly installed facility to ensure that the installation is in the intended location.
- (e) If metallic facilities are exposed, see guide material under §192.459.
- (f) Conducting a leak survey over gas facilities that could have been affected by the new installation.
- (g) Locating and marking of newly abandoned and other known abandoned facilities to reduce the likelihood an active facility is mistaken for an abandoned facility.

4 PROTECTING GAS FACILITIES INSTALLED BY DIRECTIONAL DRILLING

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