2019 – November 11 – Editorial Section
Approved additions and deletions to GMA G-192-11 and G-192-11A. Ready for 3rd LB.

PRIMARY: G-192-11, 11A
RESPONSIBLE GROUP: DP/ER Task Group
PURPOSE: Review existing (m) under GM 5.4 Procedure – Inside leak or odor complaint and develop GM to minimize the likelihood that the service line will be punctured.

Current GM: (m) Consider a barhole test at or near the outside meter riser. Where there is an inside meter, consider a barhole test at the service entrance.

ORIGIN/RATIONALE: Bob Naper email 10/3/14
I personally know of two cases where the process, as presently outlined within our Guide, has caused incidents. Fortunately, there were no fatalities associated with either. There is a need for us to act to minimize the likelihood of this ever occurring again. Words need to be put together to, at least, address the following concepts.
1) Make the bar hole between the service riser and the building.
2) Make the bar hole shallow and away from the service. (Some guidance may already exist on this elsewhere in the Guide.)
3) Look for customer owned lines that, at the outlet of the gas meter, go underground, as is often the case with pool heaters.

Third Letter Ballot note: Revisions from 2nd letter ballot (LB3-2018) are highlighted below.

GMA G-192-11

4.4 Leak surveys and test methods.

... (b) Subsurface Gas Detection Survey.
(1) Definition. …
(2) Procedure.
(i) …
(ii) Underground conduit and sewer structures can provide unobstructed and interconnected (or exclusive) migration paths toward buildings. If readings are found in these structures, further investigation should follow. See 5.3(ij) below.
(3) Utilization. …
(4) Precaution. When placing barholes for testing, consideration should be given to barhole placement and depth to minimize the potential for damage to other underground facilities and possible injury to personnel conducting the investigation. (See 5.2(d) and 5.3 below.)

5.2 Procedure – General.

... (d) Personnel investigating a leak indication reported as either an "inside" or "outside" complaint should perform a visual check for the existence of other underground utilities in the area. If "outside," see 5.3 below. Examples of other underground facilities in the area of suspected gas migration include the following.
(1) Customer-owned service lines.
(2) Buried fuel lines.
(3) Electric lines.
(4) Telephone wiring.
(5) Television cables.
(6) Water or sewer lines.
(e) …
Barholing may be part of a leak investigation. See 5.3 below for guidelines for barholing.
5.3 Procedure – Outside underground leak.

(a) Using a barhole device and CGI, the operator should barhole in the area of indication along and adjacent to operator’s mains and service lines, paying close attention to valves, service tees, fittings, stubs, connections, risers, or service entry points to buildings. See 4.4(b) above. If there is an outside meter in the suspected leakage area, the operator should attempt to barhole between the service riser and the foundation wall. If there is an inside meter, the operator should attempt to barhole near the suspected location of the service entry point at the foundation wall. Look for previous markouts or other indicators that might identify the point of entry.

Note: If the leakage pattern extends to the outside wall of a structure, the leak investigation should continue to the inside of the structure.

(b) Note: Use caution when barholing to avoid damage to operator facilities or other underground structures. The operator should attempt to identify, where practicable, other underground facilities and avoid barholing directly over operator piping, customer-owned piping, and other identified or suspected underground facilities.

(bc) Barholing of an underground leak indication should be done in a uniform manner by pushing or manually driving the barhole device into the soil. Barholes should be placed to a uniform depth and distance to adequately define the leak area. Operators might consider establishing a recommended maximum barhole depth based upon the depth of operator and other facilities. However, under certain soil and environmental conditions (e.g., clay-type soils, frost conditions), it might be necessary to barhole deeper than the established recommended maximum barhole depth. Under certain soil conditions, it may be possible to push the barhole device versus manually driving the barhole device into the soil. Once the area of the leak indication is determined, the operator should barhole and sample with the CGI in all directions from the approximate center of the leak until zero-gas readings are detected.

Note: If the leakage pattern extends to the outside wall of a structure, the leak investigation should continue to the inside of the structure.

(c)(d) …

(e)(f) …

(g)(h) …

(i)(l) Investigating readings in underground conduit structures.

(1) …

(6) Ventilate all manholes. This should reduce readings in manholes that are farther from the leak source.

Note: This action can change the pattern of air flow within the conduit system and change readings inside buildings (if conduits connect to the adjacent buildings). Therefore, check buildings as discussed in 5.3(ii)(2) above to determine if this should be a concern.

(7) …

(k)(l) …

(m) …

5.4 Procedure – Inside leak or odorant compliant.

(m) Consider a barhole test at or near the outside meter riser. Where there is an inside meter, consider a barhole test at or near the service entrance. The operator should avoid barholing directly over operator piping, customer-owned piping, and other identified or suspected underground facilities. See 5.3(a) above.

Using a barhole device and CGI, the operator should barhole in the area of indication along and adjacent to operator’s mains and service lines, paying close attention to
valves, service tees, fittings, stubs, connections, risers, or service entry points to buildings. If there is an outside meter in the suspected leakage area, the operator should attempt to barhole between the service riser and the foundation wall. If there is an inside meter, the operator should attempt to barhole near the suspected location of the service entry point at the foundation wall. Look for previous markouts or other indicators that might identify the point of entry.

Note: If the leakage pattern extends to the outside wall of a structure, the leak investigation should continue to the inside of the structure.

(1) Use caution when barholing to avoid damage to operator facilities or other underground structures. The operator should attempt to identify, where practicable, other underground facilities and avoid barholing directly over operator piping, customer-owned piping, and other identified or suspected underground facilities.

(2) Barholing of an underground leak indication should be done in a uniform manner by pushing or manually driving the barhole device into the soil. Barholes should be placed to a uniform depth and distance to adequately define the leak area. Operators might consider establishing a recommended maximum barhole depth based upon the depth of operator and other facilities. However, under certain soil and environmental conditions (e.g., clay-type soils, frost conditions), it might be necessary to barhole deeper than the established recommended maximum barhole depth. Once the area of the leak indication is determined, the operator should barhole and sample with the CGI in all directions from the approximate center of the leak until zero-gas readings are detected.

(n) ...
(o) ...

7.2 Procedure.

(j) Pinpointing a leak entering an underground conduit, sewer, or drain may require the investigation to extend to the first subsurface structure, in each direction, which has no readings. See 5.3(j) above.

GMA G-192-11A

4.4 Leak surveys and test methods.

(a) Subsurface Gas Detection Survey.

(1) Definition. ...

(2) Procedure. The survey should be conducted by performing tests with a series of barholes immediately adjacent to the gas facility and in available openings (confined spaces and small substructures). The following should be considered when selecting the placement of barholes and sample points.

(i) ...

... (vi) Underground conduit and sewer structures can provide unobstructed and interconnected (or exclusive) migration paths toward buildings. If readings are found in these structures, further investigation should follow. See 5.3(ii) below.

Barhole sample points should be placed along or adjacent to the pipeline, to the approximate depth of the pipeline, ...

(3) Utilization. ...

(4) Precaution. When placing barholes for testing, consideration should be given to barhole placement and depth to minimize the potential for damage to other
underground facilities and possible injury to personnel conducting the investigation. (See 5.2(e) and 5.3 below.)

5.2 Procedure — General.

... (e) Personnel investigating a leak indication reported as either an "inside" or "outside" complaint should perform a visual check for the existence of other underground utilities in the area. If "outside," see 5.3 below. Examples of other underground facilities in the area of suspected gas migration include the following.
(1) Customer-owned service lines.
(2) Buried fuel lines.
(3) Electric lines.
(4) Telephone wiring.
(5) Television cables.
(6) Water or sewer lines.

(f) ... (g) Barholing may might be part of a leak investigation. See 5.3 below for guidelines for barholing.

5.3 Procedure — Outside underground leak.

(a) Using a barhole device and CGI, the operator should barhole in the area of indication along and adjacent to operator’s mains and service lines, paying close attention to valves, service tees, fittings, stubs, connections, risers, or service entry points to buildings. See 4.4(b) above. If there is an outside meter in the suspected leakage area, the operator should attempt to barhole between the service riser and the foundation wall. If there is an inside meter, the operator should attempt to barhole near the suspected location of the service entry point at the foundation wall. Look for previous markouts or other indicators that might identify the point of entry. Note: If the leakage pattern extends to the outside wall of a structure, the leak investigation should continue to the inside of the structure.

(b) Note: Use caution when barholing to avoid damage to operator facilities or other underground structures. The operator should attempt to identify, where practicable, other underground facilities and avoid barholing directly over operator piping, customer-owned piping, and other identified or suspected underground facilities.

(bc) Barholing of an underground leak indication should be done in a uniform manner by pushing or manually driving the barhole device into the soil. Barholes should be placed to a uniform depth and distance to adequately define the leak area. Operators might consider establishing a recommended maximum barhole depth based upon the depth of operator and other facilities. However, under certain soil and environmental conditions (e.g., clay-type soils, frost conditions), it may might be necessary to barhole deeper than the established recommended maximum barhole depth. Under certain soil conditions, it may be possible to push the barhole device versus manually driving the barhole device into the soil. Once the area of the leak indication is determined, the operator should barhole and sample with the CGI in all directions from the approximate center of the leak until zero-gas readings are detected. Note: If the leakage pattern extends to the outside wall of a structure, the leak investigation should continue to the inside of the structure.

(c)(d) ... (e)(f) ... (f)(g) ... (g)(h) ... (h)(i) ... (i)(j) Investigating readings in underground conduit structures.
(1) ...
(6) Ventilate all manholes. This should reduce readings in manholes that are farther from the leak source.

Note: This action can change the pattern of air flow within the conduit system and change readings inside buildings (if conduits connect to the adjacent buildings). Therefore, check buildings as discussed in 5.3(i)(2) above to determine if this should be a concern.

(7) …

5.4 Procedure – Inside leak or odorant compliant.

…

(m) Consider a barhole test at or near the outside meter riser. Where there is an inside meter, consider a barhole test at or near the service entrance. The operator should avoid barholing directly over operator piping, customer-owned piping, and other identified or suspected underground facilities. See 5.3(a) above.

Using a barhole device and CGI, the operator should barhole in the area of indication along and adjacent to operator’s mains and service lines, paying close attention to valves, service tees, fittings, stubs, connections, risers, or service entry points to buildings. If there is an outside meter in the suspected leakage area, the operator should attempt to barhole between the service riser and the foundation wall. If there is an inside meter, the operator should attempt to barhole near the suspected location of the service entry point at the foundation wall. Look for previous markouts or other indicators that might identify the point of entry.

Note: If the leakage pattern extends to the outside wall of a structure, the leak investigation should continue to the inside of the structure.

[1] Use caution when barholing to avoid damage to operator facilities or other underground structures. The operator should attempt to identify, where practicable, other underground facilities and avoid barholing directly over operator piping, customer-owned piping, and other identified or suspected underground facilities.

[2] Barholing of an underground leak indication should be done in a uniform manner by pushing or manually driving the barhole device into the soil. Barholes should be placed to a uniform depth and distance to adequately define the leak area. Operators might consider establishing a recommended maximum barhole depth based upon the depth of operator and other facilities. However, under certain soil and environmental conditions (e.g., clay-type soils, frost conditions), it might be necessary to barhole deeper than the established recommended maximum barhole depth. Once the area of the leak indication is determined, the operator should barhole and sample with the CGI in all directions from the approximate center of the leak until zero-gas readings are detected.

(n) …

(o) …

7.2 Procedure.

…

(j) Pinpointing a leak entering an underground conduit, sewer, or drain may require the investigation to extend to the first subsurface structure, in each direction, which has no readings. See 5.3(i) above.