

Re-Classifying Gas Leaks Is This Appropriate?

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June 12, 2007

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Current Practices

- There is no standard practice
- Some companies forbid a leak to be re-classified to a lesser grade
- Some companies routinely allow it

IS IT ACCEPTABLE OR NOT?

Is Venting An Acceptable Means For Re-classifying A Leak?

The Real Question

Is It The Right Thing To Do?

GPTC Leak Classification Guideline

Grade 1

A leak that represents an existing or probable hazard to persons or property, and requires immediate repair or continuous action until the conditions are no longer hazardous.

GPTC Leak Classification Guideline

Grade 2

A leak that is recognized as being non-hazardous at the time of detection, but justifies scheduled repair based on probable future hazard.

GPTC Leak Classification Guideline

Grade 3

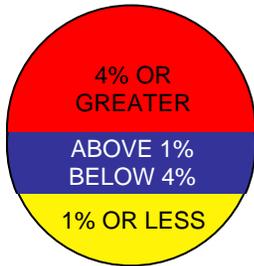
A leak that is non-hazardous at the time of detection and can be reasonably expected to remain non-hazardous.

State Leak Classification Requirements

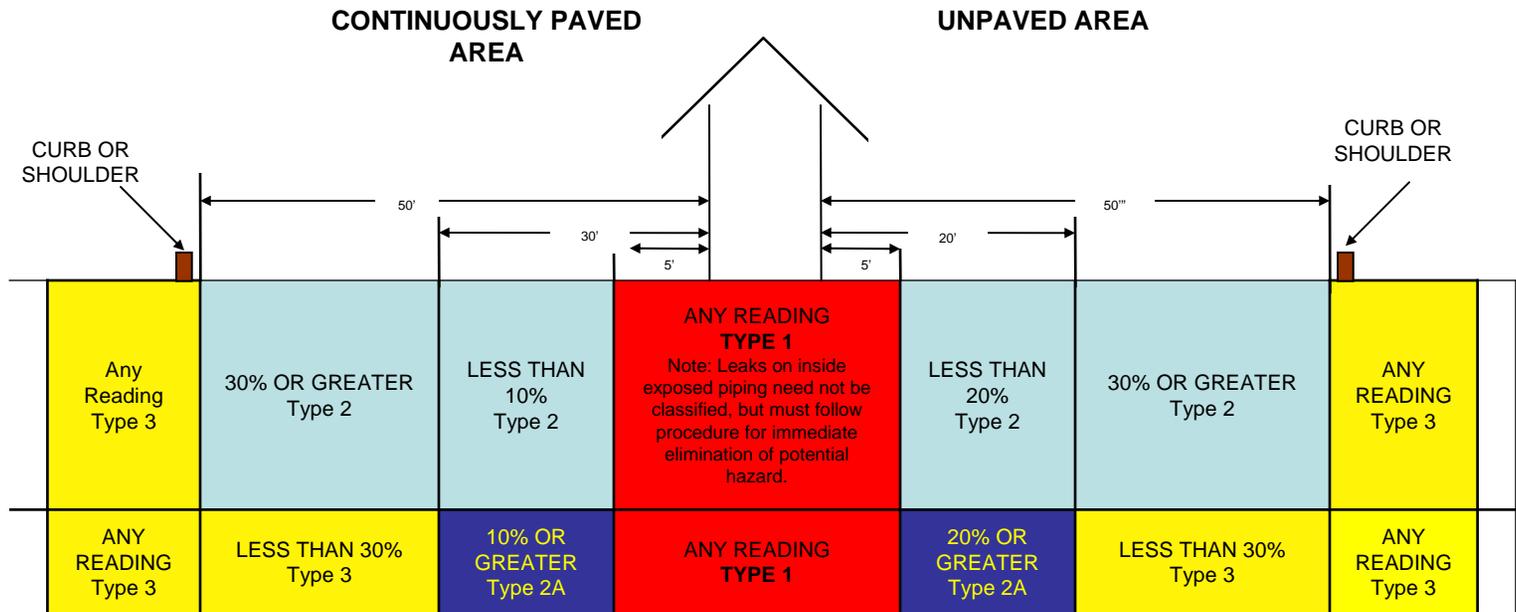
- New York
- Other States

GRAPHICAL PRESENTATION OF THE CLASSIFICATIONS OF HAZARDS WHICH RESULT FROM GAS LEAKAGE & REQUIRED ACTIONS IN ACCORDANCE WITH 16 NYCRR PART 255.805-817

MANHOLES, VAULTS OR CATCH BASINS



Readings are percent gas-in-air with structure in normal condition. Type 2 leak shall be rechecked at least every 2 weeks and repaired within 6 months.



CLASSIFICATION	ADDITIONAL CLASSIFICATIONS	REQUIRED ACTION	NOTE
TYPE 1	ANY LEAK JUDGED TO BE POTENTIALLY HAZARDOUS AT THE SCENE BY THE OPERATING PERSONNEL; THIRD PARTY DAMAGE CAUSING LEAKAGE; GAS ENTERING TUNNELS OR BUILDINGS	IMMEDIATE EFFORT TO PROTECT LIFE AND PROPERTY; CONTINUOUS EFFORT TO REMOVE HAZARD; DAILY SURVEILLANCE UNTIL SOURCE OF LEAK HAS BEEN CORRECTED	TYPE 1, 2A OR 2 REPAIR REQUIRES FOLLOW-UP INSPECTION AT LEAST 14 DAYS AFTER, BUT WITHIN 30 DAYS UNLESS REPLACED OR INSERTED
TYPE 2A	TYPE 2 OR 3 LEAKS THAT COULD MIGRATE UNDER FROST OR OTHER CONDITIONS IN THE JUDGEMENT OF OPERATING PERSONNEL AT THE SCENE	REPAIR WITHIN 6 MONTHS, SURVEILLANCE AT LEAST EVERY 2 WEEKS	
TYPE 2	TYPE 3 LEAK THAT COULD MIGRATE UNDER FROST OR OTHER CONDITIONS IN THE JUDGEMENT OF OPERATING PERSONNEL AT THE SCENE	REPAIR WITHIN 1 YEAR, SURVEILLANCE AT LEAST EVERY 2 MONTHS	
TYPE 3	ANY LEAK NOT CLASSIFIED AS TYPE 1, 2A OR 2	RECHECK AT NEXT SURVEY OR WITHIN ONE YEAR, (WHICH EVER IS LESS)	
Type 4	No Leak		

ALL READINGS ARE IN PERCENT GAS-IN-AIR AND ARE "READINGS AS DEFINED IN PART 255. 3 (a) (27)"

Grade 2 Issues

- A Grade 2 leak may be almost a Grade 1.
- In the past, Grade 2 leaks were re-inspected based on severity.
- Today, Grade 2 leaks are entered into a database and re-inspected on a scheduled basis based on date of detection (i.e., every 6 months) and not potential severity.

GPTC on Grade 2 Leak Re-Inspections

Example:

Leaks requiring action ahead of ground freezing or other adverse changes in venting conditions. Any leak, which under frozen or other adverse soil conditions, would likely migrate to the outside wall of a building.

Venting as Used for Leakage Control or Leakage Management

- It should only be used as a tool for temporary Grade 1 leak mitigation.
- There should be no semi-permanent or permanent vents.

Purpose of Venting

- Grade 1 Leak
 - Create a temporary made safe condition
 - Not for re-classification
- Residual Gas
 - Determine if additional leakage is present in leak area

Methods for Venting

- Passive Vents
 - Stand Pipe
 - Vented Manhole Cover
 - Excavation
 - Others

- Active Venting
 - Purger/Soil Aerator

Applications for Venting

- Temporary release or removal of gas accumulation during a Grade 1 hazardous condition.
- Removal of residual gas after a leak repair.
- Temporary removal of stray or alien gas in lieu of a more permanent resolution.

Issues Regarding Venting

- What are appropriate circumstances?
- What does prompt and continuous mean relative to venting?
- What is a reasonable time table for venting a leak vs. a permanent or temporary repair?
- If it is not feasible to make a permanent repair at the time of discovery, how long should you wait to make permanent repairs?

Venting & Re-Classification

- Using venting to change the classification of a leak from grade 1 to a Grade 2 is **not** recommended
- Issues:
 - Change in dynamics of leakage
 - Seasonal change in weather
 - Paving or other construction activities in area of leak

Can a Grade 1 Leak be Re-Classified?

- **Yes**, under the following conditions:
 - Leak was originally miss-classified
 - A repair was made and the Grade 1 conditions no longer exist. However, there is additional leakage in the area. Close out the Grade 1 leak report and write a new Grade 2 or Grade 3 leak report
 - A temporary repair was made and a vent has been left in place. Increase frequency of rechecks until permanent repair is completed.

Conclusions

- Venting, either using a passive or an active venting method, should only be considered as a temporary made safe condition.
- Some operator procedures may be too stringent in the classification of Grade 1 leaks. Consider a change in written procedures.

Conclusions

- Review and revise company procedures to be clear as to company position.
- Train company personnel.
- Use leak management database to manage open leaks and reflect special circumstances.

Conclusions

- Consider the addition of a fourth leak classification that represents a lesser repair priority than a Grade 1, but with a shorter re-inspection and repair cycle than a Grade 2.
 - Some operators have a Grade 2+ that requires daily re-inspections and repair within five to seven days.
- Re-classification is acceptable if leak was misclassified or a temporary repair was made.
- Other reasons must be closely examined.

Summary

“On a Grade 1 leak, venting should only be used as a means of gaining control over the leak area by forcing the gas to vent where you want it to vent while in the process of either finding the leak or making the repair.”

Ronald M. Six, April 5, 2007

Thank You!

Questions ?