

**A Report by the Staff of the
Public Utilities Commission of Ohio**

In the matter of a waiver request from Columbia Gas of Ohio
related to leak grading requirements in the Ohio Admin. Code
4901:1-16-04(H)

Case Number 20-1356-GA-WVR

September 1, 2020

**BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the matter of a waiver request)
from Columbia Gas of Ohio related)
to leak grading requirements in the)
Ohio Admin. Code 4901:1-16-04(H))

Case No. 20-1356-GA-WVR

To the Honorable Commission:

Staff conducted an investigation of the above matter and hereby submits its findings and recommendations in this Gas Pipeline Safety Staff Report.

The findings and recommendations reached in this Staff Report are presented for the Commission's consideration and do not purport to reflect the views of the Commission, nor should any party consider the Commission as bound in any manner by the findings and recommendations set forth herein.

Respectfully submitted,



Peter A. Chace
Chief, Facility Operations & Field Division
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I. Background

On August 7, 2020 Columbia Gas of Ohio (“COH”) requested a waiver from the requirements of the Ohio Administrative Code (OAC) 4901:1-16-04(H), which reads as follows:

(H) Each operator shall classify all leaks utilizing leak detection equipment. As used in this rule, leak detection equipment means any device capable of detecting and measuring the concentration of natural gas in the atmosphere. The operator shall classify all hazardous leaks immediately and classify all other leaks within two business days of discovery. The operator shall classify leaks utilizing the following:

- (1) A grade-one classification represents an indication of leakage presenting an existing or probable hazard to persons or property, and requires immediate repair or continuous action until the conditions are no longer hazardous.
- (2) A grade-two classification represents an indication of leakage recognized as being nonhazardous at the time of detection, but requires scheduled repair based upon the severity and/or location of the leak.
- (3) A grade-three classification represents an indication of leakage recognized as being nonhazardous at the time of detection and can be reasonably expected to remain nonhazardous.

The waiver request from COH is specific to the requirement that the operator shall classify all other leaks within two business days of discovery.

II. Staff Investigation

The technology COH proposes to use for its pilot mobile leak detection program is a system based on laser absorption spectroscopy, which is a technique that uses lasers to assess the concentration of methane in the atmosphere. COH will receive a data set from designated survey areas, once field observations are complete, that contains the concentration and spatial location of methane plumes in the area. The instrumentation used is capable of detecting methane at very low concentrations and there is the possibility of false positive indications such as methane from sewer gas, compost piles, or other biological sources. COH is concerned they may not be able to investigate all the methane plumes identified in a survey area within two business days.

The only section of the Pipeline Safety Regulations that addresses gas leaks on distribution systems is 49 C.F.R. 192.703 which states “Hazardous leaks must be repaired promptly.” The Pipeline Safety Regulations envision leaks being discovered through notification from the public of a gas odor or gas release, or through the performance of periodic leakage surveys.

The purpose of OAC 4901:1-16-04(H) is to establish guidelines for an operator to follow in order to conduct a leak management program. This involves grading leaks into one of three

categories with different monitoring and repair requirements based on the leak severity. At the time this rule was established, two business days was considered a reasonable amount of time to complete the assessment and classification of discovered non-hazardous leaks.

COH proposes a time period of five business days between when COH receives a data set and a suspected leak is confirmed or disproved through a field assessment using conventional leakage assessment methods. For methane plumes greater than a certain established baseline COH commits to a field assessment of the suspected leak within two business days. Once a leak is confirmed through a field assessment, the leak will be classified according to the criteria and timelines specified in OAC 4901:1-16-04(H).

III. Conclusions and Recommendations

COH states in their application they will continue to perform leakage surveys using traditional leak detection equipment in accordance with the leakage survey requirements found in the Pipeline Safety Regulations, 49 CFR 192.723 and classify any leaks identified by following the requirements in OAC 4901:1-16-04(H). The use of the proposed mobile leak detection system in addition to continued leakage surveys will result in an equivalent or greater level of public safety.

Staff also finds the response times proposed by COH to methane plumes identified by the mobile leak detection system to be reasonable and appropriate. The waiver request places timelines for conducting a field investigation of methane plumes, and essentially defines “discovery” as when the presence of a leak is confirmed through the field investigation.

COH also proposes a time period of July 31, 2022 to end their pilot program and evaluate results. Staff supports the concept of a fixed deadline to evaluate the results from this pilot program.

Staff finds the waiver request is reasonable and provides an equivalent or greater level of public safety. Staff recommends approval of the waiver as requested by COH with an expiration date of July 31, 2022.

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Summary: Report Staff investigation and conclusions electronically filed by Mr. Peter A Chace
on behalf of Public Utilities Commission of Ohio