LEAK SURVEYS, REPORTS

MUST MEET THE REQUIREMENTS OF:

CODE OF FEDERAL REGULATIONS (CFR) §
Part 192 - Transportation of Natural Gas

INDIANA ADMINISTRATIVE CODE (IAC)
170 IAC ARTICLE 5. GAS UTILITIES
5-3-2 Federal regulations, revision
ARE PROCEDURES SATISFACTORY?

§192.605 Procedural manual for operations, maintenance, and emergencies

Each operator shall include the following in its operating and maintenance plan:

• (a) General. Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response.

• (b) Maintenance and normal operations. The manual required by paragraph (a)...must include procedures for the following, if applicable, to provide safety during maintenance and operations.

• (1) Operating, maintaining, and repairing the pipeline in accordance with each of the requirements of this subpart and Subpart M of this part.
What are we finding during inspections?

• Operator has no procedures in O&M addressing Leak Surveys, Leak Reports, Leak Classification or Leak Repairs.

What do we expect?

• That the operator have procedures in their O&M addressing these operations and maintenance activities and for emergency response.
FEDERAL REQUIREMENTS FOR LEAK SURVEYS

Subpart M – Maintenance

§192.723 Distribution systems: Leakage surveys.

• (a) Each operator of a distribution system shall conduct periodic leakage surveys in accordance with this section.

• (b) The type and scope of the leakage control program must be determined by the nature of the operations and the local conditions, but it must meet the following minimum requirements:

  • (1) A leakage survey with leak detector equipment must be conducted in business districts, including tests of the atmosphere in gas, electric, telephone, sewer, and water system manholes, at cracks in pavement and sidewalks, and at other locations providing an opportunity for finding gas leaks, at intervals not exceeding 15 months, but at least once each calendar year.
STATE REQUIREMENTS FOR LEAK SURVEYS

170 IAC 5-3-2 Section (12)(b-1)


Paragraph (b-1) shall read:

- (b-1) A leak survey using gas detection equipment shall be conducted in:
  (1) business districts;
  (2) areas of high occupancy buildings as identified in the operator's operations and maintenance procedures, such as schools, churches, hospitals, apartment buildings, commercial buildings;
  (3) built-up residential areas where continuous pavement exists; and
  (4) such other areas as the commission may direct;

once each calendar year at intervals not exceeding fifteen (15) months. The surveys in...areas of high occupancy buildings, (1)..., shall be made at least to the meter outlet. **Tests shall include tests of the atmosphere in utility manholes, at cracks in the pavement and sidewalks and other locations providing an opportunity for finding gas leakage.**
What are we finding during inspections?

• Operators not performing leak surveys.
• Leak surveys are not performed each calendar year or they exceed the fifteen (15) month window.
• Leak surveys are performed with leak detector equipment not calibrated or designed for leak surveys.

What do we expect?

• Leak surveys to be performed each calendar year at intervals not exceeding fifteen (15) months.
• Use of proper leak detection equipment that is calibrated and designed for leak surveys.
Subpart L – Operations

§192.615 Emergency plans.

• (a) Each operator shall establish written procedures to minimize the hazard resulting from a gas pipeline emergency. At a minimum, the procedures must provide for the following:

• (1) Receiving, identifying, and classifying notices of events which require immediate response by the operator.
RECEIVING LEAK CALLS

• Provide **training and information for personnel receiving leak calls** – **normal** hours and **after** hours.
• Actions that **protect life first**, then property.
• Information and training **should instruct caller to safety**.
• **Wait outside, do not hang up the phone, or turn any switches, ...etc.**
• **For each odor complaint a Leak Report form shall be completed.**
LEAK REPORTS

170 IAC 5-3-2  Section (12)(c)

Paragraph (c) shall read:

• (c) All leaks reported, regardless of the origin of the reports, shall be recorded on suitable report forms. These report forms should provide space for all pertinent information. Each leak reported shall be accounted for, and actions taken in response to leaks shall be documented and filed in a systematic manner.
What are we finding during inspections?

- Personnel receiving leak calls are not trained.
- The only documentation of leaks are the leaks discovered during the annual Leak Survey. Reports for the leaks discovered outside this Leak Survey have not been available.
- Lack of information on leak reports discovered during Leak Survey and other reported leaks.

What do we expect?

- Personnel receiving leak calls are trained.
- Adequate documentation of all reported leaks. Refer to the examples of Gas Leak and Repair Reports in your handout.
GAS LEAK AND REPAIR REPORT

COMPANY: ____________________________________________

Receipt of Report:
Date: ____________________________________ Time: ____________

Location of Leak: ____________________________ (address, intersection, etc.)
Reported by: ____________________________ (Name) ____________________________ (Address)
Description of Leak: ____________________________ (inside/outside)
Leak Detected by: ____________________________
Leak Reported by: ____________________________
Report Received by: ____________________________

Dispatched
Date: ____________________________ Time: ____________________________
Investigation Assigned to: ____________________________ ____________________________ (Name)
Assigned as Immediate Action Required? Yes _______ No ________

Investigation
Date: ____________________________ Time: ____________________________
Investigation by: ____________________________ Leak Found? Yes _______ No ________
CGI Used? Yes _______ No ________ Leak Grade: 1 _______ 2 _______ 3 _______
Location of Leak: ____________________________
Cause of Leak: ____________________________
Condition Made Safe: Date: ____________________________ Time: ____________________________

Repair Report
Length of Pipe Exposed: ____________________________ feet
Leak at: Threads ______ Coupling ______ Weld (give type) ______ Valve ______ Other ______
Pipe: Size: ______ Inches/Steel( ) Plastic( ) Cast Iron( ) Other( ) Depth ( )
Coating: Enamel ( ) Wrapped ( ) Galvanized ( ) Other ( )
Condition: Excellent ( ) Good ( ) Fair ( ) Poor ( )
Soil Conditions: Sand ( ) Clay ( ) Loam ( ) Other (describe) ______
Moisture: Dry ______ Damp ______ Wet ______
Repairs Made: ____________________________________________

Repair Coating Type: Mastic ( ) Hot Applied Tape ( ) Other (describe) ______
Anodes Installed: How many? ______ Anode Weight ______ lbs Depth Installed ______
Repairs Made by: ____________________________ (Name) ____________________________ (Date)

Foreman: ____________________________ (Signature) Supervisor: ____________________________ (Signature)

Posted by: ____________________________ Date: ____________________________
**TELEPHONIC REPORT OF CUSTOMER LEAK**

**COMPANY:**

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**Customer Leak Information**

<table>
<thead>
<tr>
<th>Time Call Received:</th>
<th>a.m./p.m.</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Caller:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caller's Phone Number:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name of Customer if not Caller:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Address of Leak:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Nature of Complaint:**

| Odor ( ) | Blowing Gas ( ) | Dead Vegetation ( ) | Other (describe): |

**Is the gas odor or sound inside the residence?**

| Yes | No |

If yes, where is it located? (at the water heater, at the heating system, at the stove, in the hall, in the kitchen, etc.):

**Is the gas odor or sound outside the residence?**

| Yes | No |

If yes, where is it located? (at the meter, near the street, at the house, in the ditch, at the pool, at the gas grill, etc.):

**How long have you been smelling or hearing the gas?**

**Will someone be home for us to check the leak?**

| Yes | No |

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**Leak Response Information**

**Time Dispatched Investigator:**

<table>
<thead>
<tr>
<th>a.m./p.m.</th>
<th>Date:</th>
</tr>
</thead>
</table>

**Name of Investigator:**

**Time of Investigator Arrival at Scene of Leak:**

<table>
<thead>
<tr>
<th>a.m./p.m.</th>
<th>Action Taken:</th>
</tr>
</thead>
</table>

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**Time of Investigator Completion at Scene of Leak:**

<table>
<thead>
<tr>
<th>a.m./p.m.</th>
<th>Additional Follow-up (if needed):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
</tbody>
</table>

**If so, what type of follow-up:**

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**Additional Remarks:**

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**Signature of Investigator:**

**Signature of Supervisor:**
LEAK CLASSIFICATION

170 IAC 5-3-2  Section (12)(c-1)(c-2)

Paragraph (c-1) shall read:

(c-1) All leaks reported shall be investigated promptly and classified in accordance with procedures... The procedures shall include acceptable response times and shall ensure that gas leakage that is hazardous to life or property shall receive immediate attention for repairs.

Paragraph (c-2) shall read:

(c-2) Leak indications where repairs are not completed shall be rechecked on subsequent surveys, depending on the operator's classification and in accordance with the operator's procedures.
GPTC Guide for Leak Classification

Based on an evaluation of the location or magnitude of a leak or both, one of the following leak grades should be assigned, thereby establishing the leak repair priority.

(a) 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.

(b) Grade 2, a leak that is recognized as being non-hazardous at the time of detection, but, requires scheduled repair based on probable future hazard.

(c) Grade 3, a leak that is non-hazardous at the time of detection and can be reasonably expected to remain non-hazardous.
GPTC Guide for Leak Classification

- Typical instrument requirements are to measure percent gas or LEL to classify the severity of a leak.

- Guidelines for leak classification and leakage control are provided in Tables 3a, 3b, and 3c in your handouts. The examples of leak conditions provided in the tables are presented as guidelines...The judgment of the operator personnel at the scene is of primary importance in determining the grade assigned to a leak.
LEAK CLASSIFICATION MADE SIMPLE

Some operators have chosen to treat all leaks as Grade 1, a leak that represents...probable hazard to persons or property, and requires immediate repair.

Pros –
• Takes the determination factor out of leak classification.
• May reduce repeat calls on non-hazardous leaks.

Cons –
• Requires immediate repair. It can’t wait until Monday.
What are we finding during inspections?

- No procedures for classifying leaks – leaks not classified.
- Operator has procedures, but individuals are not familiar with classifying leaks due to lack of training and experience.
- Operators do not have leak detector equipment to measure percent gas or LEL to classify the severity of a leak.

What do we expect?

- All leaks reported shall be investigated promptly and classified in accordance with procedures.
- Individuals responding to leaks are trained and qualified with the proper leak detection equipment to classify leaks.
- Classification of each reported leak shall be documented.
LEAK REPAIRS

170 IAC 5-3-2  Section (12)(d)
Paragraph (d) shall read:

• (d) Records shall be made covering these surveys, inspections, and repairs made. These records, along with any other routine or unusual inspections and repairs, shall be kept in the file of the operating company.
What are we finding during inspections?

- **No documentation of repairs** made on reported leaks.
- Repair **documentation does not include enough information to determine how a leak was repaired.**
- Repairs are **not made in accordance with the operator's classification and procedures.**

**What do we expect?**

- Repair **documentation on all reported leaks, clearly stating what material was used and how the repair was made.**
- Repairs are **made in accordance with the operator's classification and procedures.**
“EXCEPTION” ON LEAK AND REPAIR REPORTS

• Historically, leaks discovered and repairs made, as of the result of the annual Leak Surveys, have been documented on Leak Survey Reports only. Details on these leaks and repairs have been vague.
“EXCEPTION” ON LEAK AND REPAIR REPORTS

• IURC/PSD will accept this practice under these conditions:
  It is a non-hazardous release that can be eliminated by lubrication, adjustment, or tightening; and documentation on Leak Survey Report provides all pertinent information.
“EXCEPTION” ON LEAK AND REPAIR REPORTS

• ALL OTHER LEAKS SHALL DOCUMENTED ON SUITABLE LEAK AND REPAIR FORMS PER THE REGULATIONS.

November 4, 2010

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