

Operations and Maintenance Procedures

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Section: Emergency	Revision Date: 09/06/16

Accident and Failure Investigation

SCOPE AND PURPOSE

This procedure is to provide personnel performing accident and failure investigations with the necessary procedures for prompt and effective response and to protect life and property as required by §192.617.

RESPONSIBILITY

The V.P. of Engineering & Operations, or other designee, is responsible to ensure that accident and failures investigations are performed as soon as possible and as described in this procedure.

PERSONNEL SAFETY (Where Applicable)

- Establish a safety perimeter to prevent unauthorized personnel from entering the area.
- Use the required safety equipment.

EQUIPMENT AND MATERIALS

Gas Detection Equipment
 Combustible Gas Indicator (CGI) - Shows gas readings in percent (%) gas, LEL or UEL
 Flame Ionization (FI) Unit
 Probe Rod
 Locator
 Maps & Other Records (If Available)
 Communication method (Radio, Cell Phone, etc)
 Other Equipment and Materials as Needed

OPERATOR QUALIFICATION

No specific tasks necessary under the Operator Qualification Plan.

MAINTENANCE & OPERATION OF INSTRUMENTS

Each instrument used during the accident and failure investigation shall be operated in accordance with the manufacturer's recommended operating instructions.

CALIBRATION OF INSTRUMENTS

Each instrument used during the accident and failure investigation shall be calibrated in accordance with the manufacturer's recommended calibration instructions.

ADDITIONAL GUIDANCE & ACTION CRITERIA

When performing accident and failure investigations

PRECAUTIONS

- Caution should also be exercised to prevent damage to gas pipelines and other underground structures when bar-holing or excavating.
- Situations that may complicate investigation techniques include, but not limited to:
 - Multiple leaks
 - Gas pressure
 - Rain

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- Wind
- Type and depth of cover
- Frozen ground
- Foreign gases
- Gas detected in storm-drain or sewer systems
- Gas detected in telephone or other duct runs
 - These indications should be considered migrating gas leakage until proven otherwise by test or analysis.

INSTRUCTIONS

- a. Accident and failures shall be classified as follows:
 - i. Type I – Broke lines, Overpressure, or Relief Failure handled and dispatched through SCUD normal procedures that do not have significant damage or release of gas. Type I are investigated through the Broke Line Report data and Broke Line Repair form.
 - ii. Type II - Broke lines, Overpressure, or Relief Failure handled and dispatched through SCUD normal procedures that have property damage and also include customer outage. Type II Accidents and Failures do not meet the definition of an incident as define in CFR 49 Subtitle B Chapter I Subchapter D Part 191.3. Type II are investigated through the Broke Line Report data and Broke Line Repair form.
 - iii. Type III - Broke lines, Overpressure, Relief Failure, or system damage handled and dispatched through SCUD normal procedures and meet the definition of an incident as define in CFR 49 Subtitle B Chapter I Subchapter D Part 191.3. Type II are investigated through the Broke Line Report data, Broke Line Repair form, PHMSA Form 7100.1, and PHMSA Form 11.
- b. Any accident and failure type investigation may include laboratory analysis where appropriate to determine cause and prevention. Accident, failures, and emergencies shall be periodically reviewed by SCUD Managers and Supervisors.

REPORTING/NOTIFICATION

The SCUD employee conducting the accident and failure investigation document the findings in accordance with the Operation and Maintenance Manual. Each accident and failure investigation shall be conducted utilizing the Broke Line Report data, Broke Line Repair form PHMSA Form 11 Pipeline Failure Investigation Report, Odor Report forms, and any related data. Investigation data may also include reports by local emergency response agencies.

RELATED PROCEDURES

EMER004 – Outside Gas Leak Investigation
 MAINT009 – Gas Leak Survey
 MAINT015 – Leak Grading Criteria

SAMPLE FORMS

PHMSA Form 7100.1
 PHMSA Form 11 Pipeline Failure Investigation Report