

PROCEDURES

LEAKAGE GRADING

5.0 PURPOSE

The purpose of this section is to establish the most appropriate procedures to be undertaken in response to any indication of gas leakage.

5.1 SCOPE

All leaks on Operator facilities are assigned priority classification according to the following:

- A. Location
- B. Spread
- C. Gas concentration
- D. Possibility of gas accumulation
- E. Possible sources of ignition
- F. Imminence of hazard to the public or property

5.2 LEAKAGE PRIORITY

- A. Each leak priority code has a maximum time limit for corrective action. Priority classification is based on relative degree of hazard and the examples are listed for each Leakage Grade.
- B. The person evaluating the leak, after considering the primary criteria listed, will determine the grade of the leak. The leak Grade shall be documented on the appropriate form(s).
- C. All leak repairs will have a follow-up inspection to ensure that all leakage has been repaired. This should be done while the excavation is open.
- D. In the case of residual gas, a follow-up survey should be made no later than 30 days following a repair.

5.3 GRADE I

A grade I leak is any leak that has conditions that pose an immediate or imminent hazard to people or property. **Immediate action shall be taken to repair Grade I leaks** and Dispatch shall be contacted immediately. **Continuous Action** shall be taken until the leak source is accurately located and the hazard has been eliminated. Continuous action includes

PROCEDURES

LEAKAGE GRADING

monitoring area of leakage for possible gas migration. Examples may be, but are not limited to:

- A. Leaks blowing at the surface.
- B. Gas in or under any building.
- C. Gas indications underground adjacent to any buildings:
 - 1. Within 5' when not paved;
 - 2. Within 10' when paved;
 - 3. Within 50' of a school, hospital, theater or other places of public assembly.
- D. Concentrations of 1% gas (20% LEL) or greater in excavations, substructures, confined spaces or enclosures which personnel can enter.
- E. 1% gas (20% LEL) or greater confined space containing electric connections or other sources of ignition.
- F. Leakage which, because of public concern or location, may be considered hazardous to persons or property.

5.4 GRADE II

A Grade II leak is one that has conditions that may be considered a potential problem, but is obviously not an immediate or imminent hazard. These conditions shall be reported at the end of the working day in which they were encountered. **Grade II leaks shall be repaired within 30 days of discovery or re-evaluated every 30 days after detection until repaired, reclassified or no longer results in a reading.** The re-evaluations may continue for a maximum of 12 months from the reported date. Examples may be, but are not limited to:

- A. Concentrations below 1% gas (20% LEL) in excavations, substructures or enclosures which personnel can enter.
- B. Gas indications underground adjacent to any building:
 - 1. Between 5' and 25' when not paved.
 - 2. Between 10' and 50' when paved.

PROCEDURES

LEAKAGE GRADING

3. Between 50' and 100' of a school, hospital, theater or other place of public assembly.
- C. Leaks requiring elimination prior to construction or reconstruction of streets, highways, buildings or underground construction.
- D. Leaks affecting vegetation.

5.5 GRADE III

A Grade III leak is one that is non-hazardous at the time of detection and can be reasonably expected to remain non-hazardous. **A grade III leak must be repaired, or re-evaluated during the next scheduled survey, or within 15 months of the reported date, whichever occurs first.** All leaks not classified as a Grade I or Grade II will be classified as Grade III. Examples may be, but are not limited to:

- A. Any reading of less than 3% gas (60% LEL) in small, gas-associated substructures.
- B. Any reading under a street in areas without wall-to-wall paving where it is unlikely the gas could migrate to the outside wall of a building.
- C. Any reading of less than 1% gas (20%LEL) in a confined space.