

**Docket No. SA-534**

**Exhibit No. 2-R**

**NATIONAL TRANSPORTATION SAFETY BOARD**

**Washington, D.C.**

49CFR 192.903

(2 Pages)

## PART 192 – TRANSPORTATION OF NATURAL AND OTHER GAS BY PIPELINE: MINIMUM FEDERAL SAFETY STANDARDS

### Subpart O—Gas Transmission Pipeline Integrity Management

#### §192.901 What do the regulations in this subpart cover?

This subpart prescribes minimum requirements for an integrity management program on any gas transmission pipeline covered under this part. For gas transmission pipelines constructed of plastic, only the requirements in §§ 192.917, 192.921, 192.935 and 192.937 apply.

[Amdt. 192-95, 68 FR 69777, December 15, 2003 as amended by Amdt. 192 95A, 69 FR 2307, December 22, 2003]

#### §192.903 What definitions apply to this subpart?

The following definitions apply to this subpart:

**Assessment** is the use of testing techniques as allowed in this subpart to ascertain the condition of a covered pipeline segment.

**Confirmatory direct assessment** is an integrity assessment method using more focused application of the principles and techniques of direct assessment to identify internal and external corrosion in a covered transmission pipeline segment.

**Covered segment or covered pipeline segment** means a segment of gas transmission pipeline located in a high consequence area. The terms gas and transmission line are defined in §192.3.

**Direct assessment** is an integrity assessment method that utilizes a process to

evaluate certain threats (i.e., external corrosion, internal corrosion and stress corrosion cracking) to a covered pipeline segment's integrity. The process includes the gathering and integration of risk factor data, indirect examination or analysis to identify areas of suspected corrosion, direct examination of the pipeline in these areas, and post assessment evaluation.

**High consequence area** means an area established by one of the methods described in paragraphs (1) or (2) as follows:

(1) An area defined as—

(i) A Class 3 location under §192.5; or

(ii) A Class 4 location under §192.5; or

(iii) Any area in a Class 1 or Class 2 location where the potential impact radius is greater than 660 feet (200 meters), and the area within a potential impact circle contains 20 or more buildings intended for human occupancy; or

(iv) Any area in a Class 1 or Class 2 location where the potential impact circle contains an identified site.

(2) The area within a potential impact circle containing—

(i) 20 or more buildings intended for human occupancy, unless the exception in paragraph (4) applies; or

(ii) An identified site.

(3) Where a potential impact circle is calculated under either method (1) or (2) to establish a high consequence area, the length of the high consequence area extends axially along the length of the pipeline from the outermost edge of the first potential impact circle that contains either an identified site or 20 or more buildings intended for human occupancy to the outermost edge of the last contiguous potential impact circle that contains either an identified site or 20 or more buildings intended for human occupancy. (See Figure E.I.A. in appendix E.)

(4) If in identifying a high consequence area under paragraph (1)(iii) of this defini-

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tion or paragraph (2)(i) of this definition, the radius of the potential impact circle is greater than 660 feet (200 meters), the operator may identify a high consequence area based on a prorated number of buildings intended for human occupancy within a distance 660 feet (200 meters) from the centerline of the pipeline until December 17, 2006. If an operator chooses this approach, the operator must prorate the number of buildings intended for human occupancy based on the ratio of an area with a radius of 660 feet (200 meters) to the area of the potential impact circle (*i.e.*, the prorated number of buildings intended for human occupancy is equal to  $[20 \times (660 \text{ feet [or 200 meters]}/\text{potential impact radius in feet [or meters]})^2]$ )).

**Identified site** means each of the following areas:

(a) An outside area or open structure that is occupied by twenty (20) or more persons on at least 50 days in any twelve (12)-month period. (The days need not be consecutive.) Examples include but are not limited to, beaches, playgrounds, recreational facilities, camping grounds, outdoor theaters, stadiums, recreational areas near a body of water, or areas outside a rural building such as a religious facility); or

(b) A building that is occupied by twenty (20) or more persons on at least five (5) days a week for ten (10) weeks in any twelve (12)-month period. (The days and weeks need not be consecutive.) Examples include, but are not limited to, religious facilities, office buildings, community centers, general stores, 4-H facilities, or roller skating rinks); or

(c) A facility occupied by persons who are confined, are of impaired mobility, or would be difficult to evacuate. Examples include but are not limited to hospitals, prisons, schools, day-care facilities, retirement facilities or assisted-living facilities.

**Potential impact circle** is a circle of radius equal to the potential impact radius (PIR).

**Potential impact radius (PIR)** means the radius of a circle within which the potential failure of a pipeline could have significant impact on people or property. PIR is determined by the formula  $r = 0.69 \times (\text{square root of } (p \times d^2))$ , where 'r' is the radius of a circular area in feet surrounding the point of failure, 'p' is the maximum allowable operating pressure (MAOP) in the pipeline segment in pounds per square inch and 'd' is the nominal diameter of the pipeline in inches.

**Note:** 0.69 is the factor for natural gas. This number will vary for other gases depending upon their heat of combustion. An operator transporting gas other than natural gas must use section 3.2 of ASME/ANSI B31.8S-2001 (Supplement to ASME B31.8; incorporated by reference, *see* §192.7) to calculate the impact radius formula.

**Remediation** is a repair or mitigation activity an operator takes on a covered segment to limit or reduce the probability of an undesired event occurring or the expected consequences from the event.

[Amdt. 192-95, 68 FR 69777, December 15, 2003 as amended by Amdt. 192 95A, 69 FR 2307, December 22, 2003; Amdt. 192-95B, 69 FR 18227, April 6, 2004; Amdt. 192-95C, 69 FR 29903, May 26, 2004; Amdt. 192-103, 71 FR 33402, June 8, 2006; Amdt. 192-103c, 72 FR 4655, Feb. 1, 2007]

**§192.905 How does an operator identify a high consequence area?**

(a) *General.* To determine which segments of an operator's transmission pipeline