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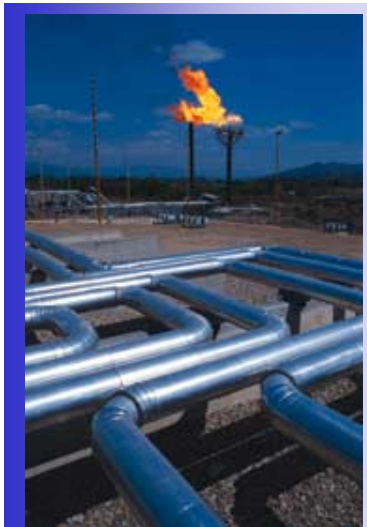

Office of Pipeline Safety

Pipeline Integrity Management Gas Transmission Pipelines

Mike Israni

April 25, 2003

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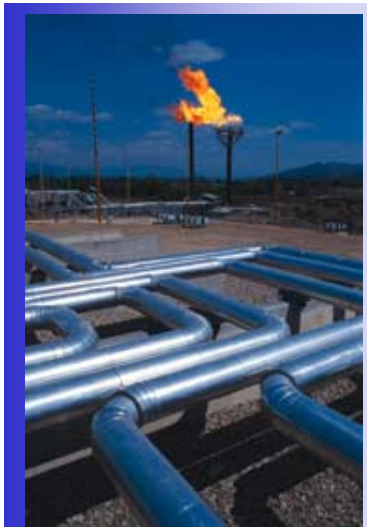

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Public Meeting - Gas IMP (NPRM)

April 25, 2003 - Washington Dulles

Assessment

1. *Low-stress pipelines:*

Goal: Reduce assessment burden for pipe not expected to fail by rupture, but still provide enhanced protection for high consequence areas.

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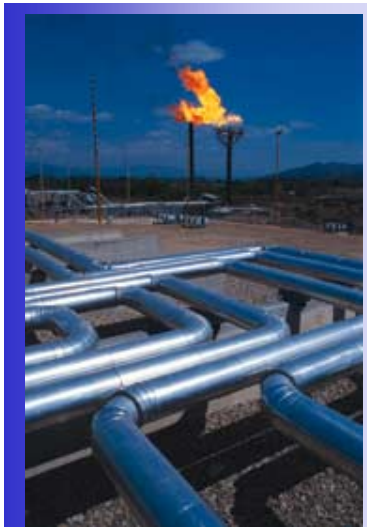

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Assessment

1. *Low-stress pipelines:*

   Should assessment requirements for low-stress pipeline (i.e., operating at less than 30 percent SMYS) allow use of confirmatory direct assessment (CDA) for all assessments (baseline and reassessments)?

   Should Preventive and Mitigative requirements in Class 3 & 4 locations outside of impact circles be enhanced to provide added assurance?

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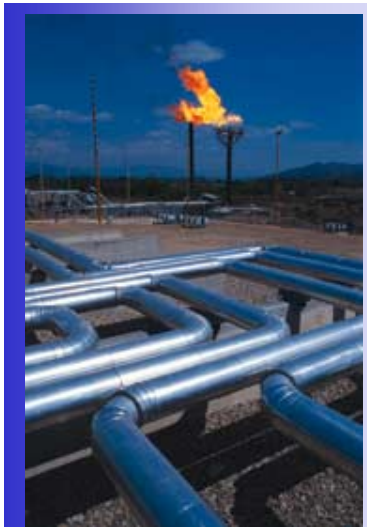

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Assessment Schedules

	ILI & PT >50% SMYS	ILI & PT ≤50% SMYS	DA
Baseline	**10 years**[1]	**10 years**[1]	**7 years**
50% Baseline	**5 years**	**5 years**	**4 years**
Confirmatory	**7 years**	**7 years**	**7 years**
Reassessment	**10 years**	**15 years**	**5/10 years**[2]

[1] 13 years if in moderate risk area

[2] 10 years if excavate all indications
5 years if excavate sample indication

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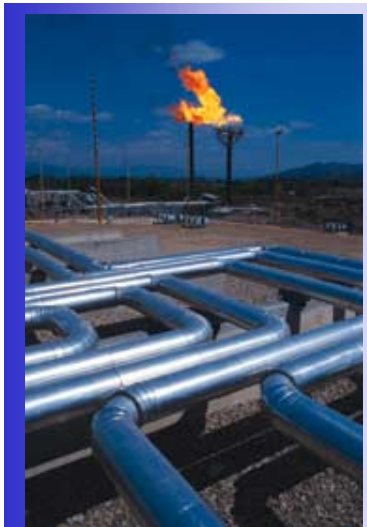

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DA vs. CDA

	DA	CDA
Prepare Plan / Define Criteria	Yes	Yes
Indirect Exams	2 tools	1 tool
Excavate “immediate”	Yes	Yes
Excavate “Scheduled”	2	1
Excavate “monitored”	1	0

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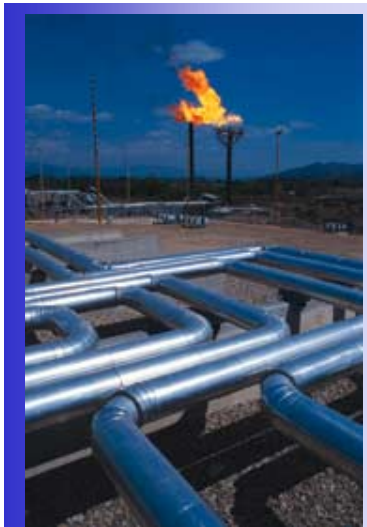

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Assessment

2. Pressure testing:

Goal: Assure protection against material and construction defects that could result in delayed failures.

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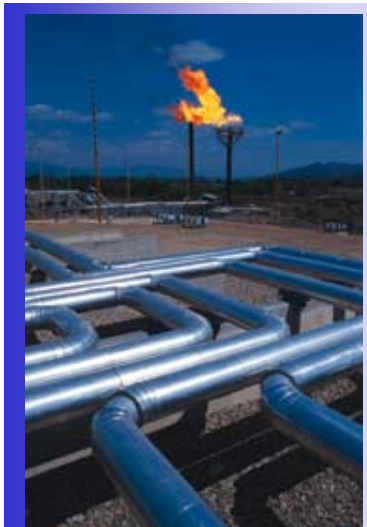

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Assessment

2. Pressure testing:

Should the requirement to pressure test pipeline to verify integrity against material and construction defects be limited to pipeline segments for which information suggests a potential vulnerability to such defects? If so, what information should be relied upon?

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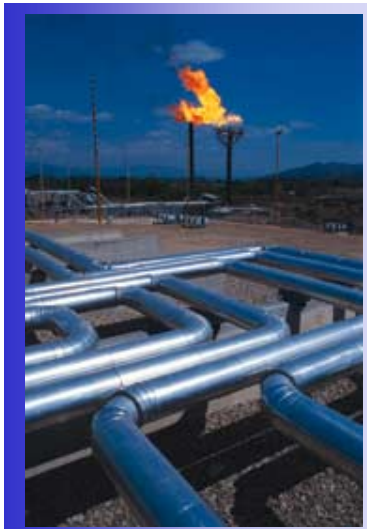

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Assessment

3. Direct assessment equivalency:

Goal: Assure that direct assessment provides an understanding of pipeline integrity comparable to that provided by other assessment methods.

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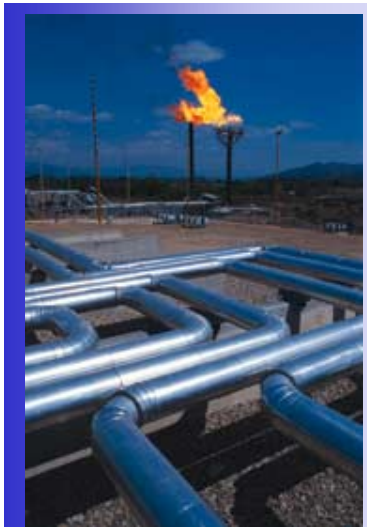

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Assessment

3. *Direct assessment equivalency:*

   Should the assessment intervals required for direct assessment be revised to be the same as those applicable to in-line inspection or pressure testing? Are there opportunities to quickly schedule and assess research demonstrations to provide additional data on which to base judgments about validity?

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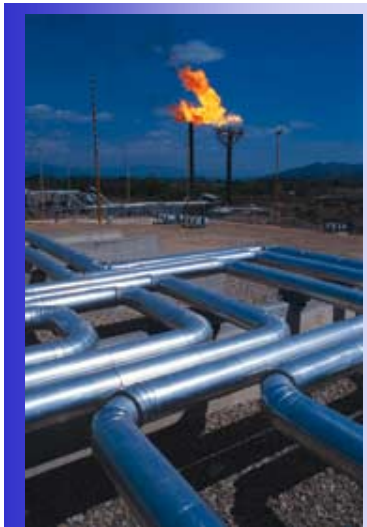

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Assessment

4. Plastic transmission lines:

Goal: Provide enhanced protection to high consequence areas when standard assessment techniques will not work.

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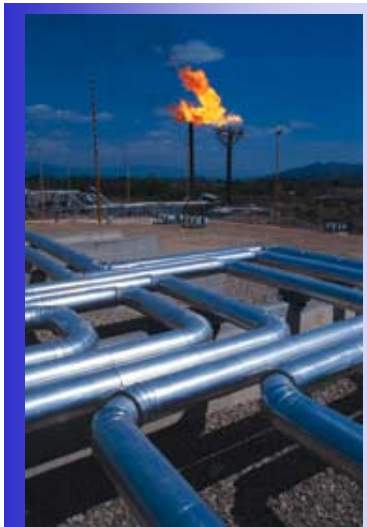

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Assessment

4. Plastic transmission lines:

What assessment requirements should be applicable to plastic transmission pipelines?

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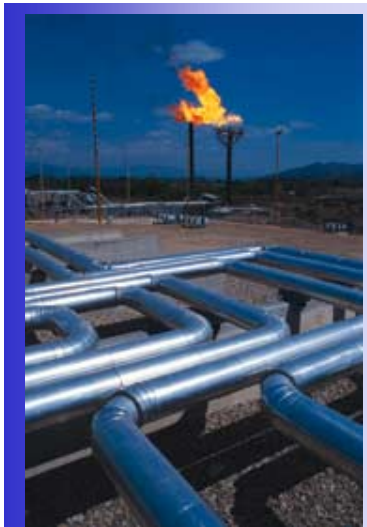

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Repairs

5. Dents and gouges:

Goal: Assure protection from delayed failures associated with dents and gouges while avoiding unnecessary excavation and repair.

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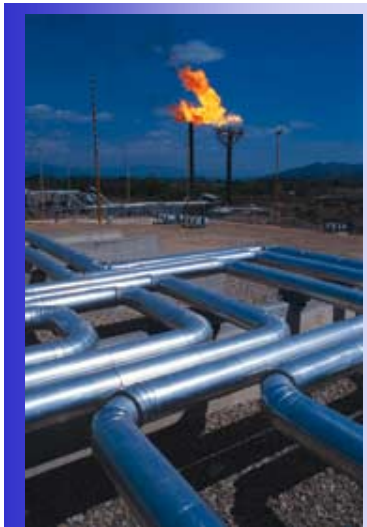

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Repairs

5. Dents and gouges:

Should a repair criteria for dents located on the bottom of the pipeline be different from that allowed for dents located on the top? Should the presence of stress risers or metal loss affect this decision?

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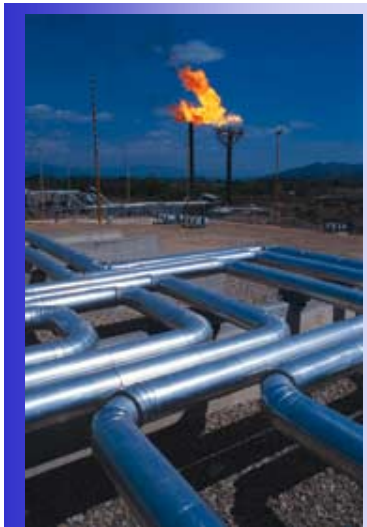

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Preventive and mitigation measures

6. *Third party damage:*

Goal: Protect against delayed failures from third-party damage in cost-effective manner.

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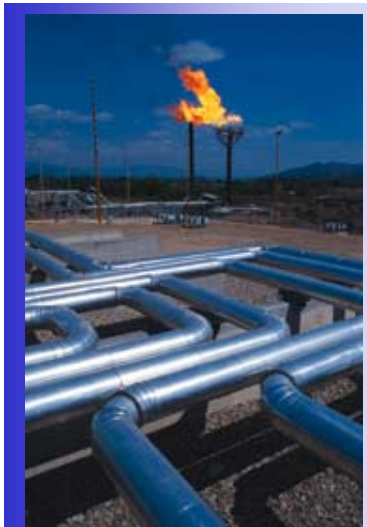

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Preventive and mitigation measures

6. *Third party damage:*

Should additional third-party damage prevention methods be utilized instead of explicit assessments for third-party damage ? What methods should be used in conjunction with other assessment methods to detect delayed third party damage?

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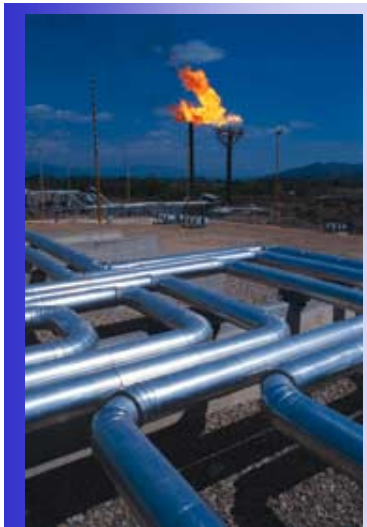

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Preventive and mitigation measures

7. Segments outside HCAs:

Goal: Assure protection of the entire pipeline from problems identified through assessment activities in high consequence areas.

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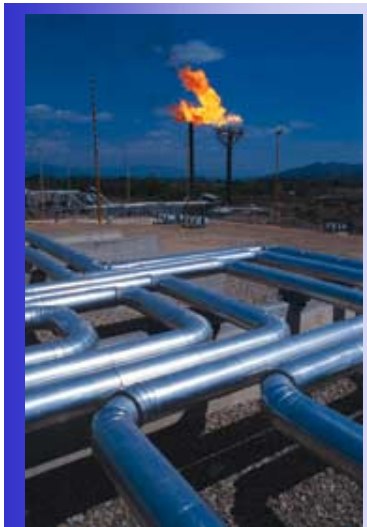

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Preventive and mitigation measures

7. Segments outside HCAs:

How can the requirements be clarified for the situations when an operator should look beyond the segment in a high consequence area, when segments outside the HCA are likely to have similar integrity concerns as those found inside an HCA?

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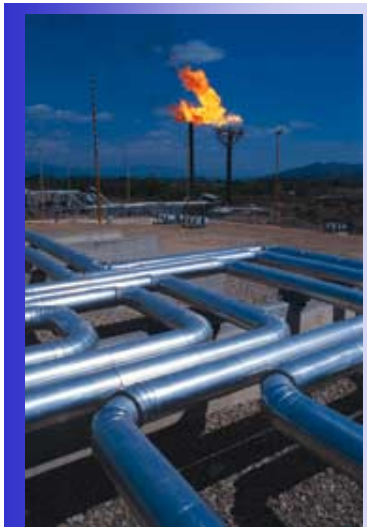

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Performance measures

(8) - "Real time" reporting:

Goal: Provide current information to state and federal regulators regarding effectiveness of IM programs.

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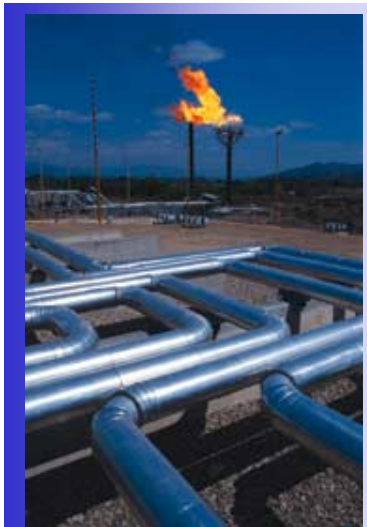

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Performance measures

(8) - "Real time" reporting:

Should we require monthly electronic reporting of performance measures?

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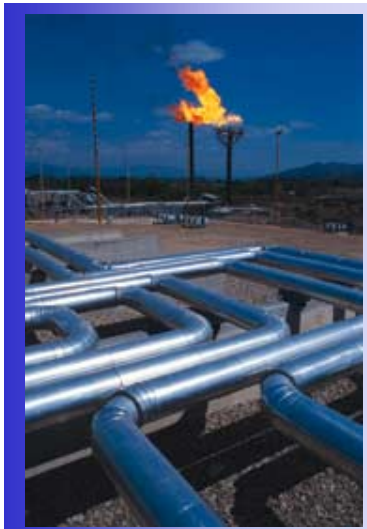

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Definitions

9. *High Consequence Area*

   – *Bifurcation Option:*

Goal: Identify those segments of a pipeline that present the greatest potential hazard to people in order to focus integrity management efforts on those segments.

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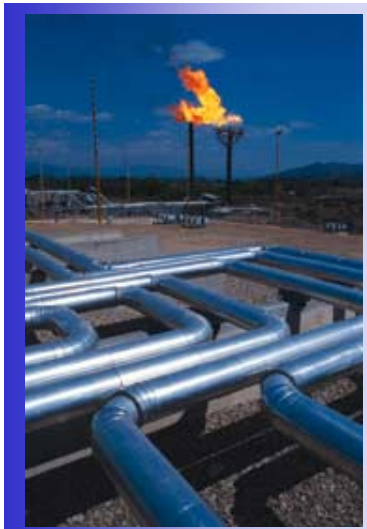

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Definitions

9. *High Consequence Area – Bifurcation Option:*

Should a rule allow two options: following the definition of high consequence areas defined by final rule on August 6, 2002;(67 FR 50824) or using potential impact circles along the entire length of the pipeline?

Requirements for how an operator treats identified sites that are defined in the high consequence area would not change under either option.

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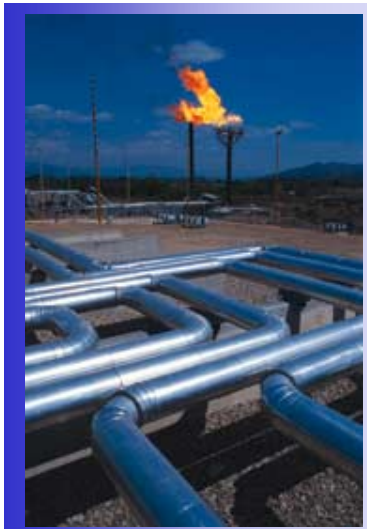

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Definitions

10. *Population threshold:*

Goal: Identify those portions of a pipeline that present the greatest potential hazard to people in order to focus integrity management efforts on those segments.

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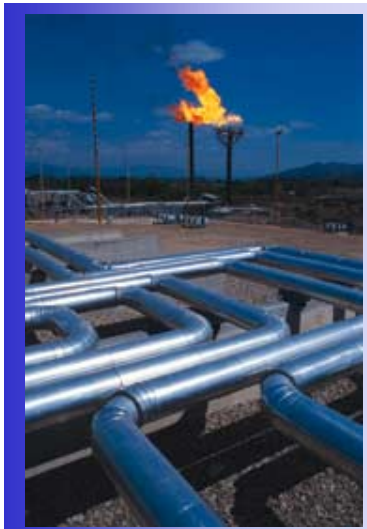

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Definitions

10. *Population threshold:*

Should the criterion for determining the population density component of a high consequence area be based on 10 or 20 buildings intended for human occupancy within the impact circle?

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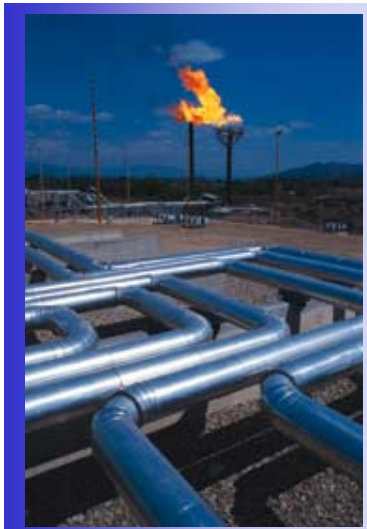

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Definitions

11. *Impact radius safety margin:*

Goal: Assure that the identification of high consequence areas includes the population at risk from potential pipeline accidents.

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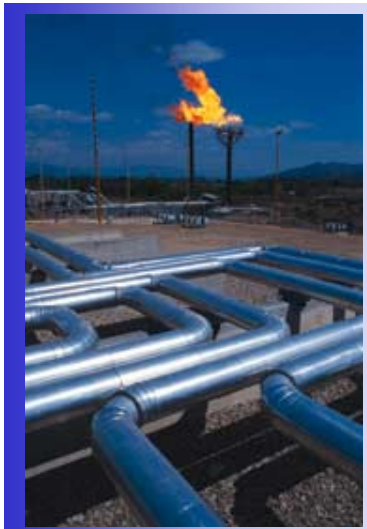

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Definitions

11. *Impact radius safety margin:*

Should additional safety margin be applied to the potential impact circle radius calculated using the C-FER equation?

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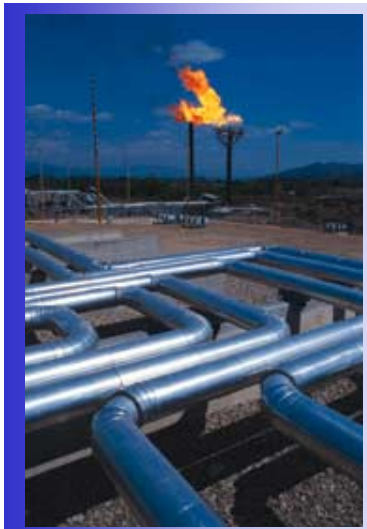

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Definitions

12. *Extrapolation:*

Goal: Avoid imposition of unreasonable burdens while assuring consideration of the entire population at risk for potential pipeline accidents in HCA identification.

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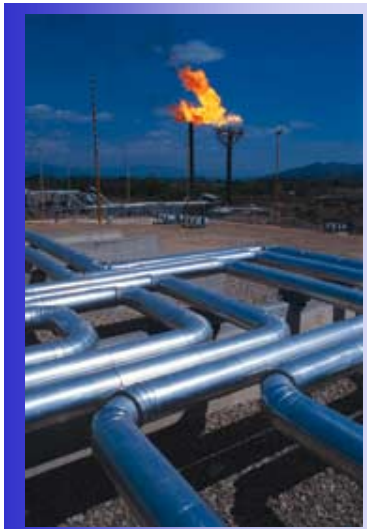

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Definitions

12. *Extrapolation:*

Should a rule allow an operator to use data regarding the number of buildings within 660 feet of the pipeline (available now to operators because of the existing definition of class locations) to infer (extrapolate) the building density in potential impact circles larger than 660 feet? Should this be limited to an interim period of five years to allow operators to collect additional data on buildings beyond 660 feet?