



Indiana Utility Regulatory Commission  
Pipeline Safety Division

**2010 Master Meter Operator Compliance Seminar**  
**November 4, 2010**

# Integrity Management for Distribution Natural Gas Systems

## **DIMP**

49 CFR Subpart P (§192.1015)



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## DIMP

§192.1015(a) “General. No later than August 2, 2011 the operator of a master meter system or a small LPG operator must develop and implement an IM program that includes a written IM plan as specified in paragraph (b) of this section. The IM program for these pipelines should reflect the relative simplicity of these types of pipelines.”



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## **DIMP**

Each plan must address, at a minimum, the following six elements:

- 1) Knowledge
- 2) Identify threats
- 3) Rank risks
- 4) Identify and implement measures to mitigate risks
- 5) Measure performance, monitor results and evaluate effectiveness
- 6) Periodic evaluation and improvement



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## **DIMP**

Each plan must address, at a minimum, the following six elements:

- 1) Knowledge
  - a) Demonstrate knowledge of the pipeline (system) – should include approximate location and material.
  - b) Provide a plan gaining knowledge over time through normal activity



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## **DIMP**

Each plan must address, at a minimum, the following six elements:

- 2) Identify threats - Must consider, at a minimum, these categories (existing and potential):
  - a) Corrosion
  - b) Natural forces
  - c) Excavation damage
  - d) Other outside force damage



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## DIMP

Each plan must address, at a minimum, the following six elements:

- 2) Identify threats, cont'd
  - e) Other outside force damage
  - f) Material or weld failure
  - g) Equipment failure
  - h) Incorrect operation



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## DIMP

Each plan must address, at a minimum, the following six elements:

- 3) Rank risks
  - a) Risk is the product of the likelihood of an event times the potential consequences should the event occur.
  - b) Evaluate risks and estimate relative importance of each.

**Calculate the weight, or final score, of each risk and rank them based on that score.**



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### DIMP

### Calculate Risk – Other Outside Force

	Likelihood High = 6	Likelihood Medium = 3	Likelihood Low = 1
Consequence High = 6	36	18	6
Consequence Medium = 3	18	9	3
Consequence Low = 1	6	3	1



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## DIMP

Each plan must address, at a minimum, the following six elements:

- 4) Identify and implement measures to mitigate (reduce) risks
  - a) Train staff to recognize when there is a threat
  - b) Increase "walkabouts"
  - c) Install signs, barriers
  - d) Paint vulnerable components a bright color



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## **DIMP**

Each plan must address, at a minimum, the following six elements:

- 5) Measure performance, monitor results and evaluate effectiveness
  - a) "...must monitor, as a performance measure, the number of leaks eliminated or repaired on its pipeline and their causes." 192.1015(b)(5)
  - b) KEEP RECORDS**
  - c) Hazardous leaks, excavation damage, repairs
  - d) Establish a base line from which comparisons can be made



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## DIMP

Each plan must address, at a minimum, the following six elements:

- 6) Periodic evaluation and improvement
  - a) Determine appropriate period to evaluate your program
  - b) System complexity
  - c) Changes in risk(s)
  - d) Consider results from performance monitoring (element 5)
  - e) Must evaluate every five years**



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## DIMP

### Records

§192.1015(c) "operator must maintain, for a period of at least 10 years, the following records:..."

- a) Written IM plan, including superseded plans
- b) Documents supporting threat identification
- c) Documents showing location and material of all piping and appurtenances that are installed after the date of the IM plan, and the same as of the date of the plan

?

**MAP(S) - August 2, 2011**