Section 192.935

~~*This guide material is under review following Amendment 192-130.*~~

1 ADDITIONAL PREVENTIVE AND MITIGATIVE (P&M) MEASURES (§192.935(a) and (c))

~~To comply with §192.935, an~~ An operator must conduct a risk analysis of ~~all~~ pipelines within HCAs~~,~~ and determine ~~for~~ each applicable threat on each covered segment per §192.917 (see guide material under §192.917). Using the risk analysis results, an operator considers whether any of the following ~~(which exceed the requirements of other subparts of Part 192)~~ will prevent pipeline failure or mitigate the consequences of such a failure. The operator must determine which actions, if any, that exceed the requirements of other subparts of Part 192 will be implemented as additional preventive and mitigative measures (§192.935(a)).

~~Some activities performed as requirements for additional preventative and mitigative measures may also be used to satisfy similar program requirements under §§ 192.614, 192.615, 192.616, and 192.620(d)(2).~~ *[Editorial note: Moving this sentence to end of GM 1, so it doesn't separate the list below from the above lead-in sentences which state the "the following".]*

(a) Installation of an automatic shut-off valve (ASV) or a remote-control valve (RCV) other than those required by §192.634.

(1) To comply with §192.935(c), an operator must consider the following factors in determining if an ASV or RCV would be an efficient means of adding protection in an HCA.

(i) ...

...

(2) An operator may also consider the following.

(i) ...

...

(b) Installation of computerized monitoring and leak detection systems.

An operator may consider the following, which could provide earlier leak or pipeline rupture detection.

(1) Increasing the locations monitored by SCADA.

(2) Automating data gathering from other monitoring devices such as pressure transmitters.

(3) Installation of pressure transmitters on either side of an ASV or RCV.

(c) Replacing pipe with that of heavier-wall thickness, which is more resistant to damage from external forces.

(d) Providing additional training on response procedures.

An operator may consider the following.

(1) ...

...

(e) Conducting drills with local emergency responders. The operator may consider the following.

(1) ...

...

(f) Implementing additional inspection and maintenance programs. The operator may consider the following.

(1) Increasing leak survey frequencies.

(2) Increasing patrol frequencies.

(3) Using procedures with more stringent criteria than required by the Regulations.

(4) Increasing facility inspection frequencies.

(5) Performing periodic depth of cover surveys at or along roads, streams, crossings, agricultural land, or other locations which over time may experience loss of cover.

(6) Implementing an internal corrosion control program.

(~~g~~ 6) Remediating areas below or approaching minimum depth of cover requirements by adding cover, lowering pipe, rerouting line to location less susceptible to erosion or loss of cover, or other suitable means of protection ~~per~~ (see §192.327).

(h) Performing hydrostatic testing or material property testing, or both, for locations with unknown material properties or missing pressure test records.
  (1) Processes developed for MAOP reconfirmation and material verification may be adapted for use outside of pipeline segments subject to §§ 192.624 or 192.607, respectively.
  (2) Incorporation of results into the risk model gives the operator more accurate risk assessment since unknown or missing records are typically assigned conservative values.

(i) Implementing a process to review past incidents and identify additional actions which could prevent similar occurrences. Operators may also choose to include safety-related conditions (see §192.23), failures (see §192.617), or other abnormal operations (see §192.605(c)) in their review.
  (1) Evaluate whether root cause is likely to reoccur elsewhere.
  (2) Identify P&M measures such as those in this list which could have prevented or mitigated the occurrence.

(j) Performing periodic review of O&M processes and identifying opportunities to increase safety. This may be done as part of the annual procedure review required by §192.605.

(k) Reviewing active P&M measures and evaluating resource allocation. Consider resource needs when identifying and evaluating new P&M measures.

Notes:

(1) If an operator determines that no additional P&M measures will be taken, the decision must be documented (§192.935(a)(2)).

(2) Some activities performed as requirements for additional preventative and mitigative measures may also be used to satisfy similar program requirements under §§ 192.614, 192.615, 192.616, and 192.620(d)(2).

2 THIRD-PARTY DAMAGE (§192.935(b)(1)) ...

3 OUTSIDE FORCE DAMAGE (§192.935(b)(2)) ...

4 PIPELINES OPERATING BELOW 30 PERCENT SMYS (§192.935(d))

Pipelines operating below 30% SMYS have additional requirements as addressed below. For guidance related to these additional requirements, see Appendix E to Part 192.

(a) For all Class locations in an HCA, the following apply.
  (1) ...
  ...

(b) For Class 3 or Class 4 locations outside of an HCA.
  (1) Qualify personnel to conduct the following activities related to work the operator is conducting in covered segment.
    (i) ...
    ...
  (2) Participate in a one-call program wherever there are covered segments.
  (3) Either monitor excavations near the pipeline, or conduct patrols on a bi-monthly frequency. Any indication of unreported construction activity requires an investigation to determine if any damage has occurred.
  (4) Perform ~~semi-annual~~ leak surveys within the minimum intervals specified in the Regulations. ~~For unprotected or cathodically protected pipe where electrical surveys are impractical, perform quarterly leak surveys.~~
    (i) Surveys must be conducted using instrumented leak detection equipment; reliance on human senses is not sufficient (§192.935(d)(3)).
    (ii) Surveys are required four times per year for unprotected or cathodically protected pipe where electrical surveys are impractical; two times per year for other locations operating below 30%

SMYS (§192.935(d)(3)).

(c) See Table 192.935i.

5 PLASTIC TRANSMISSION LINES (§192.935(e)) ...