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CPN PIPELINE COMPANY

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VIA FEDEX AND EMAIL

July 25, 2012

SENT TO COMPLIANCE MANAGER
Hardcopy ___ Electronic ✓
# of Copies 1 Date 7.27.12

Mr. Chris Hoidal
Director, Western Region
Pipeline and Hazardous Materials Safety Administration
12300 W. Dakota Ave., Suite 110
Lakewood, CO 80228

RE: CPF 5-2012-0002M
Response to February 29, 2012 Notice of Amendment to CPN Pipeline Company

Dear Mr. Hoidal:

In response to the above-referenced Notice of Amendment dated February 29, 2012 ("Notice"), CPN Pipeline has amended its Integrity Management Program. Specifically, Element #1: ID of Pipeline Segments Impacting HCAs, Section 1.5 was revised to include pipeline reroutes as a factor to be considered when analyzing for potential impacts to HCAs. I have included the revised Element #1 as an attachment.

We believe this amendment completes all the corrective actions described in our March 27, 2012 letter to you in response to your Notice. If you believe any additional corrective actions are necessary in response to your Notice, or if you have additional questions or need any additional information please contact me at 707-374-1505.

Respectfully,

Scott Vickers
Compliance Manager

Cc: Lyle Fedje
Kurt Seel
Hossein Monfared

Enclosure: CPN Pipeline Company Integrity Management Program, Element #1: ID of Pipeline Segments Impacting HCAs

Integrity Management Program
Natural Gas Pipelines
Element #1: ID of Pipeline Segments Impacting HCAs

Ref: 49 CFR 192.901- 915	Updated: June 2012

In This Element:

1.1 Applicability of Gas IMP Rule [192.901]

The rule applies to gas transmission operators regulated by 49 CFR Part 192. This rule became effective February 14, 2004. For gas transmission pipeline constructed of plastic, only the requirements of 192.917, 192.921, 192.935, and 192.937 apply. CPN Pipeline currently does not operate any plastic transmission pipelines.

In determining if an intrastate pipeline meets the definition of a transmission line set out in Part 192.3, CPN Pipeline will consider the factors listed in 49 CFR 192.3(a)-(c) of the pipeline safety regulations.

Note, gas gathering lines are exempt from this gas IMP regulation. [Federal Register Notice, Volume #69, No. 66, 18228, April 6, 2004, FAQ #9 & #188]

How CPN Pipeline Will Address Idle and Out of Service Lines (Not Fully Abandoned):

In-service idle pipe (i.e., that contains gas, but is not presently being used to transport gas) represents a potential hazard to public health and the environment, even though idle. If such pipe leaks or ruptures, an explosion could result. Leaks may go undetected for some time, since idle pipe may not be covered by operator's SCADA systems. For

these reasons, CPN Pipeline will meet all requirements and deadlines for pipe that contains gas. Such pipe must be included when determining if the requirement to assess 50% of covered pipeline mileage by December 17, 2007, has been met.

Out-of-service pipe (i.e., pipe laid up with nitrogen) represents much less hazard. Degradation of such pipe can occur, but is not likely to result in safety impacts. PHMSA will accept deferral of activities required by the rule for out-of-service pipe. All deferred activities must be completed as part of any later return of that line to service. A baseline assessment need not be run immediately if the deadline for completing baseline assessments (i.e., December 17, 2012) has not yet expired, unless the risk posed by the line would require an earlier assessment. The baseline assessment plan should be modified to assure that a baseline assessment is completed by the appropriate deadline. If the deadline has expired, then a baseline assessment will be completed as part of returning the line to service. Adding an idle line into the IMP program would be considered a substantive program change and would require notification under 192.909(b). [FAQ #7]

How CPN Pipeline Will Address Facilities:

CPN Pipeline will consider pipeline facilities when establishing potential impact circles (the diameter of the pipe into/out of the equipment will be used), and if applicable, the facility will be included in the integrity management program processes for addressing these facilities. [FAQ #84]

1.2 Summary of Requirements for ID of HCAs [192.901-915] & [PHMSA Protocol A.1.d, Program Requirements]

Gas pipeline operators must identify high consequence areas (HCAs) using method #1 or method #2 by December 17, 2004. Methods # 1 and #2 are described in detail below (see section 1.3, definitions).

The Office of Pipeline Safety has four primary objectives for the Integrity Management rule. [FAQ #1]

- Accelerating the integrity assessment of pipelines in High Consequence Areas
- Improving operator integrity management systems
- Improving government's role in reviewing the adequacy of integrity programs and plans, and
- Providing increased public assurance in pipeline safety

1.3 Definitions Applicable to ID of HCAs [192.903]

"Covered Segment" as defined in the rule means a continuous segment of pipeline located in an HCA. If the potential impact circle methodology is used to identify HCAs, then, at a minimum, the covered segment begins at the outermost edge of the first potential impact circle that meets the HCA criteria and extends axially to the outermost edge of the last contiguous potential impact circle that meets the HCA criteria. This length of pipe may be subdivided to facilitate integrity assessments. Examples include such divisions as pressure limiting stations, pipe size changes or other practical divisions.

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.

Where potential impact 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.IA. at the end of this element.)

If in identifying a high consequence area under paragraph (1) (iii) of this definition 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 [20x (660 feet [or meters]/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 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
$r = 0.69$ (square root of $(p*d^2)$),
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; ibr, see 192.7) to calculate the impact radius formula.

1.4 Process for ID of HCAs [192.905]

General:

To determine which segments of CPN Pipeline's transmission pipeline system are covered by this subpart, the Company will identify the high consequence areas. CPN Pipeline will use either method (1) or method (2) from the definition in 192.903 to identify high consequence areas. CPN Pipeline will indicate in the Baseline Assessment Plan

and *High Consequence Areas* records which method it is applying to each portion of the pipeline system. The description will include the potential impact radius when utilized to establish a high consequence area.

Identified Sites:

CPN Pipeline will make a reasonable effort to identify sites meeting the criteria for "identified sites." The Company will review all Reports of Adjacent Construction submitted to determine if a change in HCA is needed. The HCA Survey Report, form IMP1-1, will be completed annually for all pipelines in conjunction with annual leak surveys or patrols. The completed forms can be found in the IMP Segment Books. CPN Pipeline will also use information from public officials with safety, emergency response or planning responsibilities who indicate that they know of locations that meet the identified site criteria. These public officials could include officials on a local emergency planning commission or relevant Native American tribal officials.

If a public official with safety or emergency response or planning responsibilities informs CPN Pipeline that it does not have the information to identify an identified site, CPN Pipeline will use one or more of the following sources, as appropriate, to identify these sites.

- Visible marking (e.g., a sign); or
- The site is licensed or registered by a Federal, State, or local government agency; or
- The site is on a list (including a list on an internet web site) or map maintained by or available from a Federal, State, or local government agency and available to the general public.

If CPN Pipeline uses Method 1 for a particular segment to identify HCAs, then all of its class 3 and 4 pipelines will be an HCA and the Company need not separately look for identified sites on that pipeline. CPN Pipeline would need to consider identified sites on any class 1 or 2 pipeline that the Company also operates. [FAQ #191]

Newly Identified Areas and Newly Acquired Segments:

When CPN Pipeline has information that the area around a pipeline segment not previously identified as a high consequence area could satisfy any of the definitions in Section 1.3 above, the Company will complete the evaluation using method (1) or (2). If the segment is determined to meet the definition as a high consequence area, it will be incorporated into CPN Pipeline's baseline assessment plan (BAP) as a high consequence area within one year from the date the area is identified. Likewise, if CPN Pipeline acquires a new segment of pipeline in an area that meets the definitions in Section 1.3, it will also be incorporated into the BAP within one year of acquisition.

How CPN Pipeline Operating Employees Will be Considered in HCA Analysis

CPN Pipeline will count CPN/Calpine operating employees when identifying HCAs. The rule is intended to provide enhanced protection for gatherings of people, and gatherings of operator employees are expected to gain the same enhanced protection. Areas, including buildings and facilities, where operator employees gather in sufficient numbers and on a sufficient number of days to meet criteria in the definition of HCAs will be so classified. [FAQ #121]

How Standing Traffic Will be Considered in HCA Analysis:

Identified sites are defined as areas that are "occupied" by more than 20 persons for specified periods. While roads and expressways near pipelines could well carry enough traffic that more than 20 persons are in proximity to the pipeline at one time, these travelers can not be said to "occupy" that location. The definition of identified sites is intended to provide additional protection for areas where people stay for more than a few seconds or minutes. Most roads and expressways need not be considered as potential "outside areas" that could qualify as identified sites. Additionally, the preamble recognized that added protection was provided to pipelines near highways with design characteristics commensurate with the pipeline safety regulations. [FAQ #143]

However, for CPN Pipeline pipelines that are not designed commensurate with the pipeline safety regulations and are located in areas that are regularly congested, such that traffic stands for many minutes within a potential impact circle, CPN Pipeline will make a determination to include or exclude these pipelines as "identified sites" on their own merits based on the integrated information they have about their pipelines at these locations. PHMSA expects that such areas will usually occur within developed areas where the pipeline would already be defined as a high consequence area, and that HCAs identified solely due to the proximity of traffic choke points will be rare.

How Portions of a Building Within PIR Will be Considered in HCA Analysis:

The potential impact radius is an approximation of the extent of immediate damage from a pipeline incident. Damage may extend slightly beyond that radius in some instances. Additionally, structures extending into the radius would very likely burn, and those fires will not be limited to the portion of the structure within the radius. The rule requires that a building containing 20 people for the time periods specified in the rule must be treated as an identified site if any portion of it is within the potential impact radius. [FAQ #162]

How Homes With Disabled Individuals Will be Considered in HCA Analysis:

The rule does not include a single home housing a disable person to be considered an identified site. The rule defines identified sites as including "a facility" occupied by persons who are confined, of impaired mobility or would be difficult to evacuate. The rule also provides that operators seek information about these facilities from public safety officials in order to provide a reasonable bound on the efforts that operators must expend to identify such sites. Generally, the focus should be on facilities that are licensed or registered as a care provider, and where multiple disabled individuals would be expected. [FAQ #176]

How Buildings With 20 or More People, but Not All at Once Will be Considered in HCA Analysis:

If a facility or site has 20 or more people visit throughout the day but never 20 or more at one time, this does not meet the identified site criteria. The definition of an identified site provides for buildings/locations that are "occupied by twenty (20) or more persons". A location that 20 or more people passed through in a day would not be "occupied" by 20 or more persons. Twenty or more persons must be present at one time for the building/outside area/open structure to be defined as an identified site. [FAQ #182]

1.5 Updating of Pipeline Segments

CPN Pipeline will monitor conditions along their pipelines. Pipeline throughput, changes in population and/or environment will be reviewed at least annually as part of the HCA Survey and risk analysis processes. When CPN Pipeline becomes aware of changes that create or change an HCA (e.g., population expands to encompass more of the area near the pipeline right-of-way), this information will be factored into their integrity assessment planning, risk analysis, and consideration of the need for additional preventive and mitigative risk controls.

As a minimum, the factors listed below will be considered and analyzed for changes and impacts on pipeline segments potentially affecting HCAs.

- Changes in pipeline maximum allowable operating pressure (MAOP)
- Pipeline modifications affecting pipeline diameter
- Changes in the commodity transported
- Identification of new construction in the vicinity of the pipeline that results in additional buildings intended for human occupancy or additional identified sites
- Change in the use of existing buildings (e.g., hotel or house converted to nursing home)

- Installation of a new pipeline
- Pipeline reroutes
- Change in pipeline class location (e.g., class 2 to 3), change in class location boundary, or pipeline reroutes
- Corrections to erroneous pipeline center line data

The rule does not specify a frequency for updating data used to identify HCAs. Instead, the rule states that operators must complete an evaluation when they have information that the area around a segment not previously identified as an HCA has changed so that it might now be one. CPN Pipeline will assure that their HCA definitions are current by completing annual HCA surveys and evaluating any new information discovered during this process. In an area in which there is rapid growth or change in the use of buildings near the pipeline, that may require frequent updating. In an area where less growth is occurring, updates could occur more infrequently. In any event, PHMSA would expect that operators would evaluate conditions along their pipelines at least annually to determine if they have changed. [FAQ #117]

A newly-identified HCA must be incorporated into the integrity management program within one year of its identification. A baseline assessment for pipeline segments that could impact newly identified HCAs must be performed within ten years of its identification.

1.6 Notification to PHMSA for Changing HCA ID Method

If CPN Pipeline initially selects method 1 to identify HCAs and later changes to method 2 for the same portion of its system, this may constitute a change in IMP that needs to be communicated to PHMSA/state, if there is a substantial change. A change in the method for determining HCAs would not, by itself, be considered a substantial change requiring notification under 192.909(b). If the change results in a significant change in the amount of system mileage that is determined to be HCA (e.g., 25% change), a notification will be submitted. [FAQ #183]

1.7 Review and Updates of IMP

CPN Pipeline will review and update the integrity management program and procedures once every three years as described in element #6 of this program (continual evaluation and assessment). When changes to the program occur, CPN Pipeline will document any modifications to the program and the reasons for the modification.

1.8 Related References and Documents

1. Amended Final Rule and Pre-amble Discussion, (49 CFR 192.901-915)
   Federal Register, Volume #69, No. 102,
   May 26, 2004.

2. Correction to Final Rule and Discussion, (49 CFR 192.901-915)
   Federal Register, Volume #69, No. 66,
   December 17, 2003.

3. PHMSA Gas Integrity Management, Protocols Area A

4. PHMSA Advisor Bulletin, ADB-03-07, Guidance on When Baseline Integrity Assessment Begins, November 17, 2003

4 PHMSA Advisor Bulletin, ADB-03-03, Guidance on Reasonable Effort to Locate Identified Sites, July 17, 2003

5. PHMSA Frequently Asked Questions (FAQs), HCA Identification

6. PHMSA Frequently Asked Questions (FAQs), Rule Applicability

7. PHMSA Frequently Asked Questions (FAQs), General

8. CPN Pipeline Integrity Management Program, HCA Segment books

9. CPN Pipeline *High Consequence Areas*