

Gathering Definition – Proposed Rulemaking

*Rocky Mountain EHS Peer Group Meeting
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Industry Incidents

- Industry accidents brought focus on pipeline safety



Introduction to Pipeline Compliance Basics

- Pipeline and Hazardous Materials Safety Administration (PHMSA) regulates hazardous pipelines
 - DOT Part 192 and 195 dictate how pipelines must be designed, operated, and maintained for safety
 - Distribution & Transmission pipelines and Gathering pipelines within city limits (incorporated and unincorporated) are regulated currently

Introduction to Pipeline Compliance Basics

- Gathering is regulated by Class Location
- Within city limits Class location is defined as 220 yards either side of pipeline on any continuous 1 mile length
 - 1: ≤ 10 buildings
 - 2: 11 to 45 buildings
 - 3 : ≥ 46 buildings (or school, church, etc. that lies within 100 yards of pipeline)
 - 4: buildings with 4 or more stories prevalent

Regulated Gathering - Current

- Proposed regulation allows Operators to better focus resources for public safety benefits



Office of Pipeline Safety Focus

- Integrity regulations passed due to pipeline incidents:
 - Liquid Integrity Rule (DOT 195.452)
 - Texas Integrity Rule (Both Gas and Liquid §8.101)
 - Gas Integrity Rule for Transmission Lines (Subpart O)
- Improve the safety of the nation's pipelines
- Provide for increased public confidence in pipeline safety
- Recognition that gathering lines do not need same regulations as transmission lines

Formation of Coalition Group

- Oil and Gas Industry Onshore Gas Gathering Regulation Coalition (“Coalition”) formed in 2003 to work with OPS on defining gathering
- Oil and gas industry associations represented by Coalition:
 - American Petroleum Institute (API),
 - Gas Processors Association (GPA),
 - Louisiana Mid-Continent Oil and Gas Association (LMOGA),
 - Texas Oil and Gas Association (TxOGA), and
 - Texas Pipeline Association (TPA).

Supplemental Notice of Proposed Rulemaking (SNPRM)

- Docket Number RSPA-1998-4868
- Issued by Pipeline and Hazardous Materials Safety Administration (PHMSA) on October 3, 2005
 - Puts OPS one step closer to finalizing regulation
 - OPS tried since 1988 to define gathering and determine how gathering should be regulated
- Adopts API RP-80 with limitations to define gathering
- Defines regulated gathering based on a risk to public safety

Why is PHMSA defining gathering when it's already in DOT Part 192?

Ambiguous Code Definitions

- “Gathering Line” means a pipeline that transports gas from a production facility to a transmission line or main.
- “Transmission line” means a pipeline, **other than a gathering line**, that....
- “Distribution Line” means a pipeline **other than a gathering or transmission line**.

API RP-80 with Limitations – Where Gathering Begins – Important to Producers

Beginning of a gathering line - may not be further downstream than the piping or equipment used solely in the process of extracting natural gas from the earth for the first time and preparing it for transportation or delivery

- Coalition Concern: PHMSA proposed limitation may be misinterpreted to support moving beginning of gathering back to well site.
- Pipeline Safety Act does not allow regulation of production facilities

API RP-80 with Limitations – Where Gathering Begins – Coalition Language

- Coalition proposed alternate definition to address PHMSA concerns
 - Concern 1) Production operation definition: Storage could be misconstrued as caverns
 - Concern 2) Relocation of equipment further downstream than necessary to reclassify pipeline as production
- “The beginning of a gathering line, for the purpose of pipeline safety regulation, shall not be artificially circumvented by:
 - 1) The installation of one or more pieces of equipment at an extreme downstream location not normally associated with a production operation; or
 - 2) Natural gas injection into, and subsequent withdrawal from, a gas storage cavern or field.”

API RP-80 with Limitations – Where Gathering Ends Summary

- 1) Inlet of the first downstream processing plant
- 2) Furthestmost downstream point where gas from separate or the same production fields is commingled, provided that the separate fields are within 50 miles of each other
- 3) Outlet of a compressor unit used to deliver gas to another pipeline.
- 4) Point of connection to another pipeline downstream of the furthestmost downstream endpoint under 1, 2, 3, or 5, or if there is none, downstream of the furthestmost downstream production facility.
- 5) If 1, 2, 3 or 4 does not exist, then the endpoint is the outlet of the furthestmost downstream gas treatment facility (dehydrator, sweetening, etc.).

Where Gathering Ends – Important to Gatherers

1. First downstream natural gas processing plant

- SNOPR includes Provision for an operator to demonstrate to the agency that a further downstream plant should be the endpoint.
- Coalition requested clarification: no change from gathering to transmission when plant is temporarily shut down

Where Gathering Ends – Important to Gatherers

2. Furthestmost downstream point where gas from separate or the same production fields is commingled, provided that the separate fields are within 50 miles of each other

- The Coalition recommends that:

a) Restriction be increased to 125 miles

b) The final rule include a provision to allow a case-by-case review where the final rule's maximum distance limitation is exceeded.

Where Gathering Ends – Important to Gatherers

3. Outlet of a compressor unit used to deliver gas to another pipeline.
 - The Coalition recommends that:
 - a) PHMSA clarify that neither ownership nor political boundaries are factors in the determination of pipeline function and that delivery of gas from one operator's gathering line to another operator's gathering line does not constitute "delivery to another pipeline."

Where Gathering Ends – Important to Gatherers

4. Point of connection to another pipeline downstream of the furthestmost downstream endpoint under 1, 2, 3, or 5, or if there is none, downstream of the furthestmost downstream production facility.
 - This allows “incidental gathering” downstream of a processing plant or other endpoint.
 - All lines from processing plants that connect to a distribution or transmission line
 - All fuel return lines(SNPRM did not impose any restriction on length or diameter of such lines)

Where Gathering Ends – Important to Gatherers

5. Furthestmost downstream gas treatment facility

- PHMSA restriction: applies only if no processing, commingling or compression upstream of the facility
- Coalition comment: There is almost always something upstream making this definition inaccessible
- PHMSA's concern: circumvent regulation as a transmission line by installing a small separator or dehydrator at an extreme downstream location and claiming this to be a "gas treatment facility"
- Coalition Recommends this language
"The end of a gathering line, for the purpose of pipeline safety regulation, shall not be defined by the installation of one or more pieces of gas treating equipment at an extreme downstream location that is not justified by sound engineering and economic principles independent of the pipeline's regulatory classification."
- Coalition comment: Further explanation be made that this endpoint refers to a "gas treating plant"; not separator or dehydrator

Now that we know what is gathering, how is it regulated?

Risk Based Approach

- PHMSA proposes to eliminate the total exemption of all rural gathering lines (previously described as non-jurisdictional).
 - Offshore pipelines are not covered
- Defines regulated gathering based on vicinity of pipeline to public
 - Impact: This part of DOT 192 code goes away:
“outside the limits of any incorporated or unincorporated city, town, or village, or other designated residential or commercial area”
 - Impact: All gathering lines will be reviewed to see if they are “regulated onshore gathering” (except vacuum lines)

Two Tiers Define Risk Based on Operating Parameters

- Tier A – Metallic and the MAOP produces a hoop stress of 20 percent or more of SMYS or Non-metallic and the MAOP is more than 125 psig
- Tier B - Metallic and the MAOP produces a hoop stress of less than 20 percent of SMYS or Non-metallic and the MAOP is less than 125 psig

NOPR: Tier A Regulated Areas

- Class 3 or 4 location (see §192.5)
- An area within a Class 1 or Class 2 location
 - *Method 1* A potential impact circle that includes five or more dwellings;

$$r = 0.69 * (\text{square root of } (p * d^2))$$

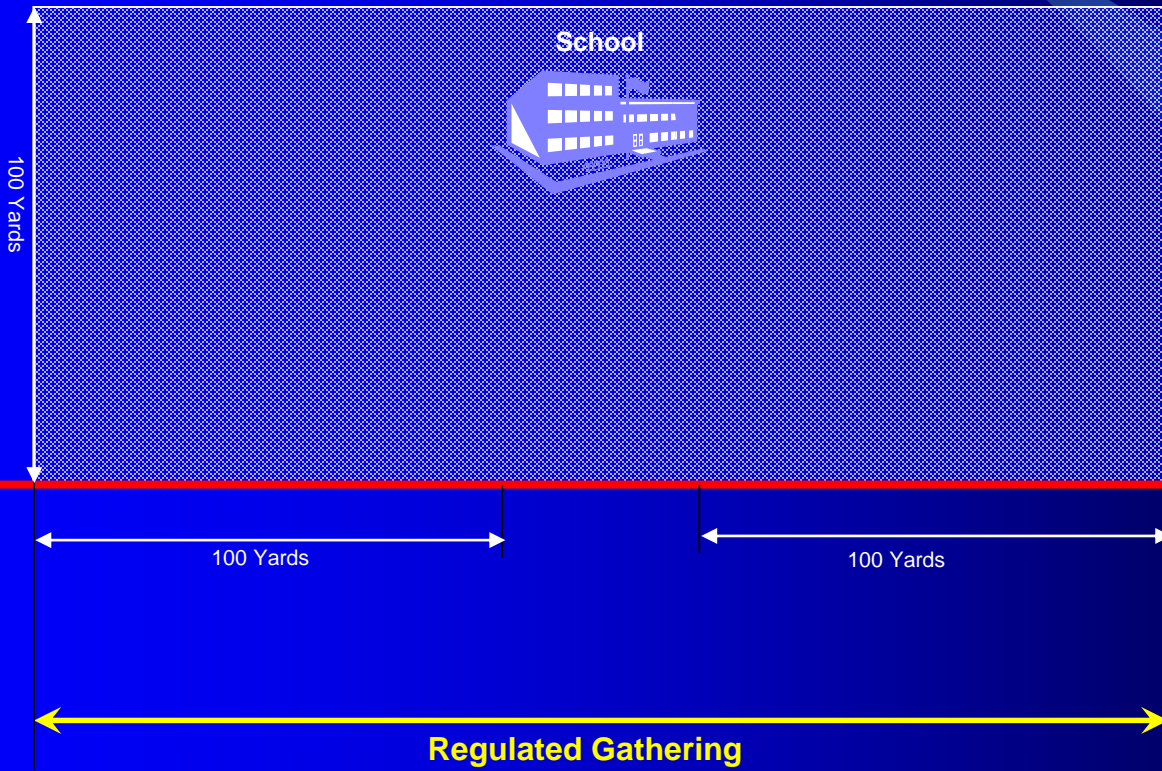
Where:

r = the radius of a circular area in feet surrounding the point of failure

p = the maximum allowable operating pressure of the pipeline segment in psig

d = the nominal diameter of the pipeline in inches

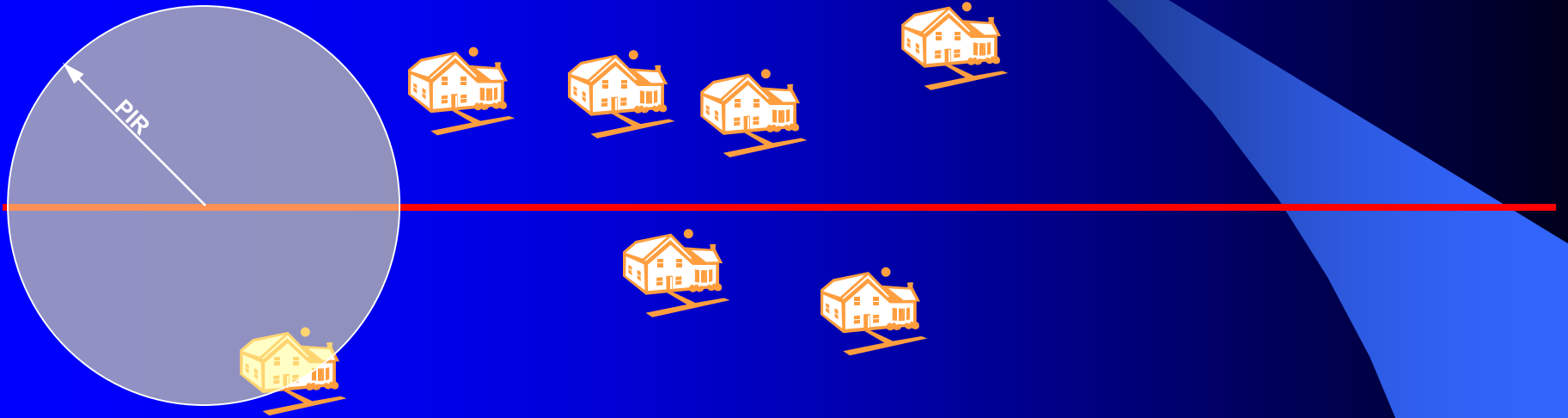
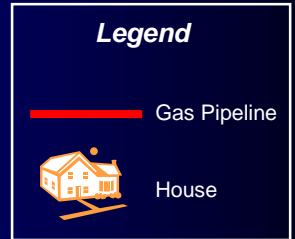
Tier A – Class 3 Regulated Gathering Example



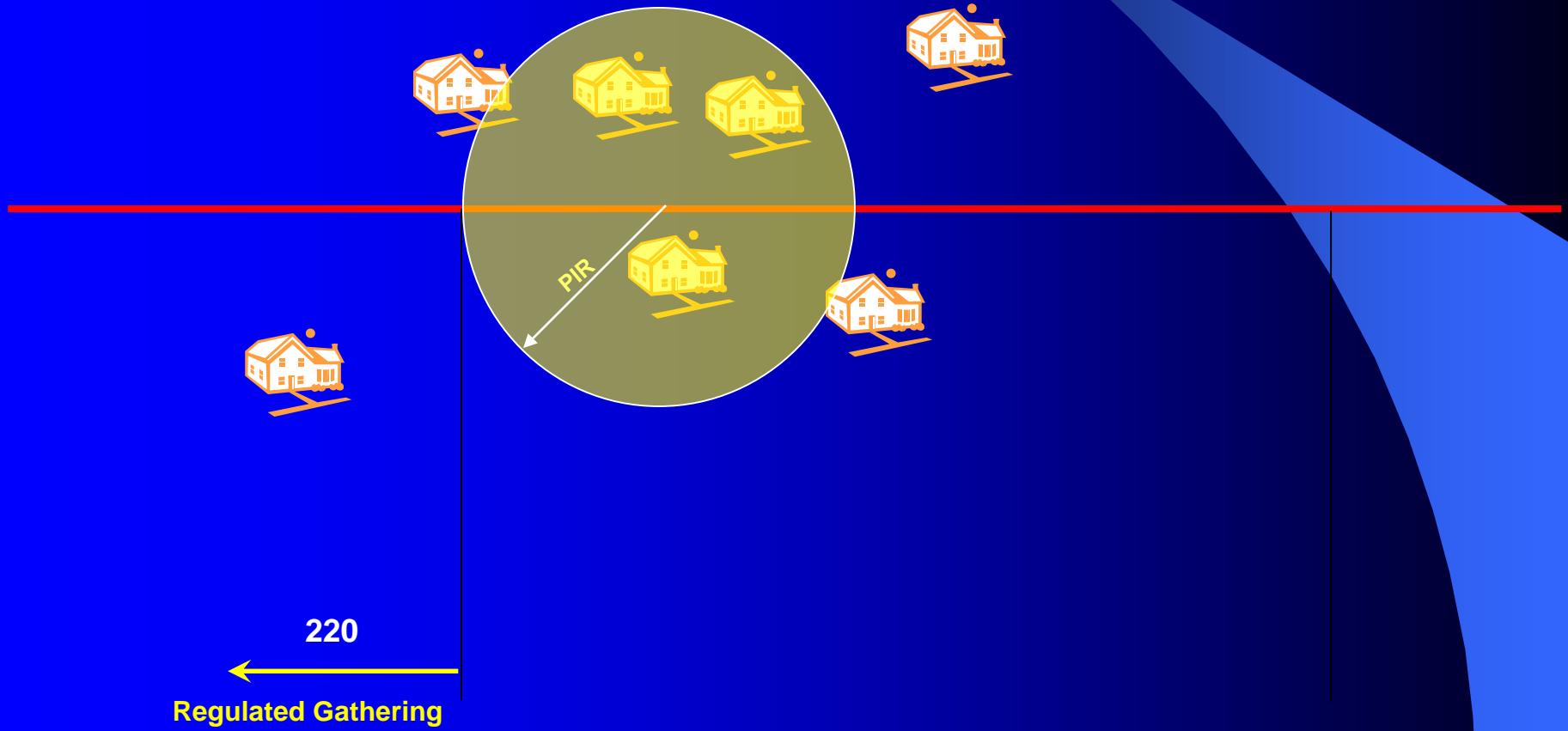
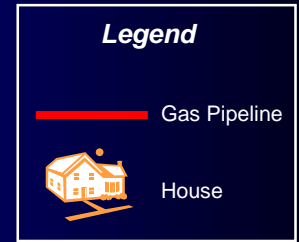
Legend

- Gas Pipeline
- School

NOPR: Tier A – Class 1 or 2 Using Method 1



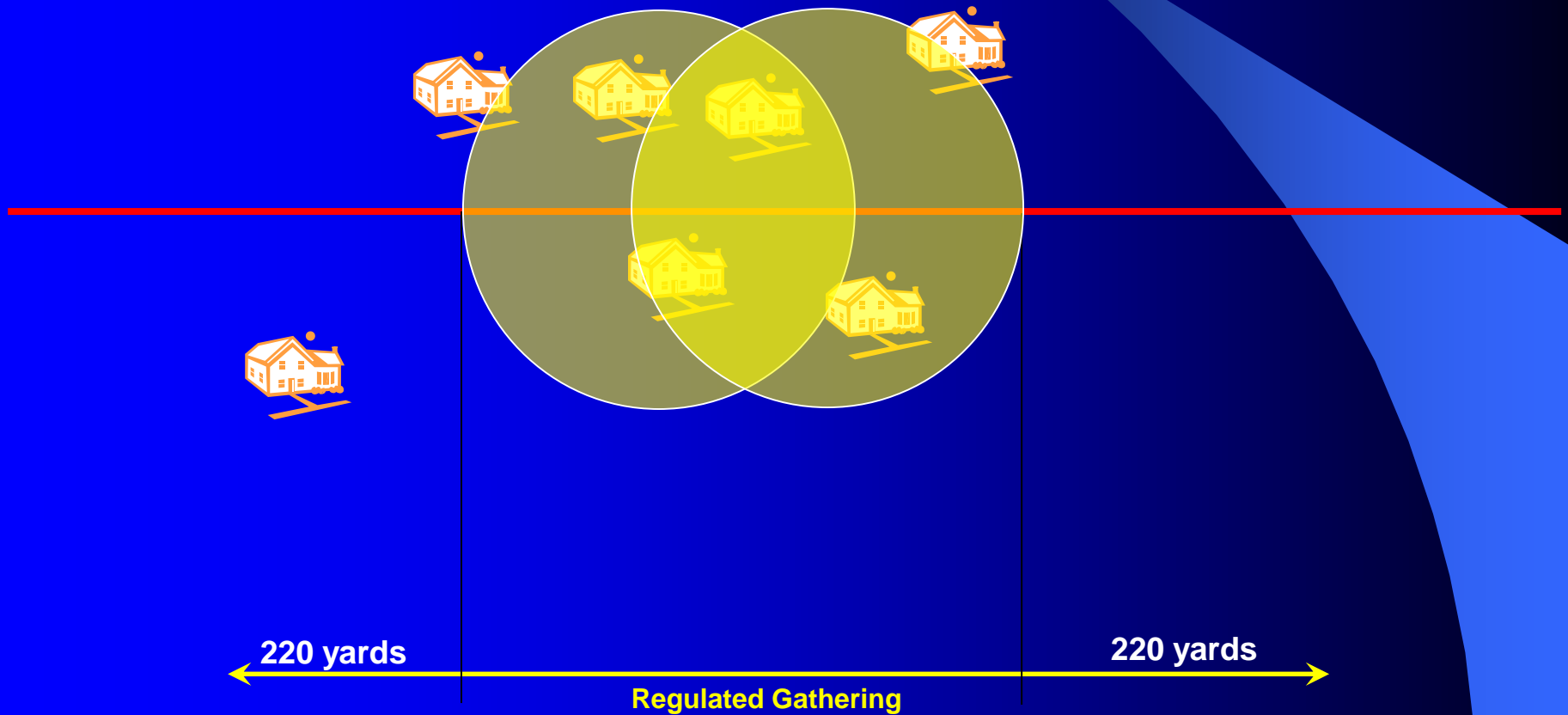
NOPR: Tier A – Class 1 or 2 Using Method 1



NOPR: Tier A – Class 1 or 2 Using Method 1

Legend

- Gas Pipeline
- House



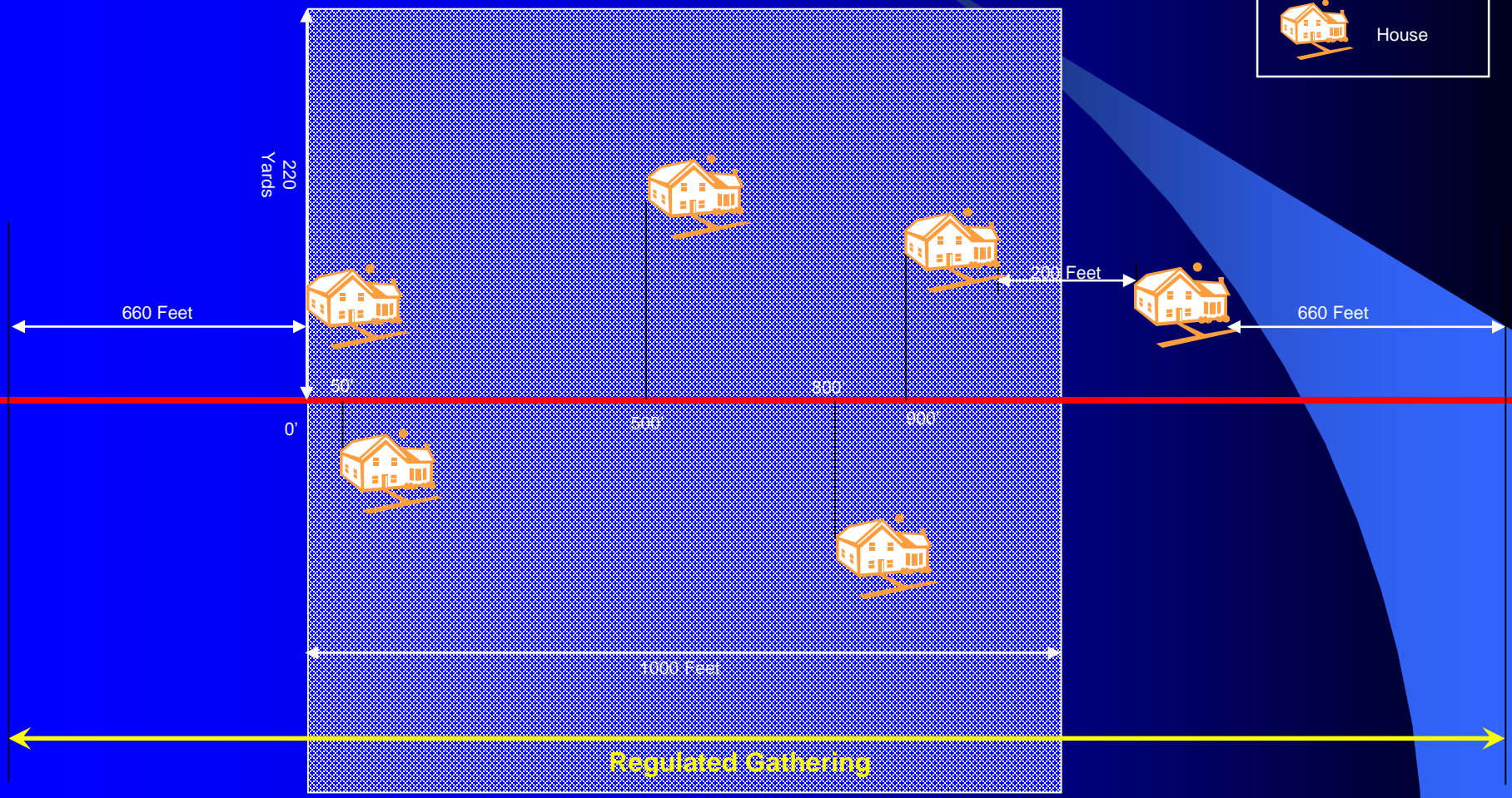
NOPR: Tier A Regulated Areas

- An area within a Class 1 or Class 2 location
 - *Method 2*
 - An area that extends 220 yards on each side of the centerline
 - any continuous 1000 feet of pipeline
 1. And includes either 5 or more dwellings per 1000 feet,
 2. or 25 or more dwellings per mile,
 - whichever results in more regulated onshore gathering line.
 - If the density of 5 or more dwellings per 1000 feet is used, the area extends along the pipeline until the space between dwellings is at least 250 feet.

NOPR: Tier A – Class 1 or 2 Using Method 2

Legend

- Gas Pipeline
- House



NOPR: Tier B Regulated Areas

- Class 3 or 4 location (see §192.5)
- An area within a Class 1 or Class 2 location
 - extends 150 feet on each side of the centerline
 - any continuous 1000 feet of pipeline that includes 5 or more dwellings

Minimum Safety Standards Proposed for Tiers

- Tier A – Subject to full DOT Part 192 compliance
 - except Integrity Management & passage of smart pig
 - Includes Operator Qualification
 - Drug Testing
- Tier B - Subject to only these DOT Part 192 requirements:
 - If a line is new, replaced, relocated, or otherwise changed, the design, installation, construction, initial inspection, and initial test must be in accordance with Part 192;
 - Corrosion Control (metallic pipelines) according to Subpart I;
 - Damage Prevention Program under 192.614;
 - MAOP established under 192.619;
 - Line markers installed and maintained according to 192.707; and
 - Public Education Program established under 192.616.

Proposed Compliance Dates

Requirement	Compliance Deadline
Control corrosion according to Subpart I requirements	[2 years after date final rule takes effect]
Carry out a damage prevention program under §192.614	[6 months after date final rule takes effect]
Establish MAOP under §192.619	[6 months after date final rule takes effect]
Install and maintain line markers under §192.707	[1 year after date final rule takes effect]
Establish a public education program under §192.616	[1 year after date final rule takes effect]
Other provisions of this part as required by paragraph (c) of this section for Type A lines	[2 years after date final rule is published]

Coalition Comment: Alternative to 5 or more houses/1000 feet

- For Type A Lines, regulated gathering areas are defined as
 - a) A Class 3 or 4 location (see §192.5).
 - b) A Class 2 location that the operator determines by using either of the following methods
 - i.* A Class 2 location (see §192.5); or
 - ii.* A potential impact circle within a Class 2 location that includes 5 or more houses, with a minimum potential impact radius of 150 feet.

- For Type B Lines, regulated gathering areas are defined as
 - a) A Class 3 or 4 location (see §192.5).
 - b) An onshore area that extends 150 feet on either side of the centerline of any continuous 1-mile length of pipeline and has 10 to 45 buildings intended for human occupancy*.

*Note that regulated lengths of line extend upstream and downstream from the area to a point where the line is at least 150 feet from the nearest dwelling in the area.

What's Next?

- TPSSC meeting today to review comments with PHMSA
 - Coalition hopes our comments are addressed and regulation is issued with our proposed changed
 - Jones Prediction: Rule issued 2Q2006
- When the regulation comes --- it's going to be a whirlwind.
- Operators will benefit by better mapping, better information regarding the condition of pipelines, and being able to focus resources to benefit public safety.