



U.S. Department of Transportation
Pipeline and Hazardous Materials
Safety Administration



PHMSA

Office of Pipeline Safety



Regulation of Gathering Lines

- History
 - 1968 & 1979 Statutory Exclusions for Rural Gas Gathering
 - 1992 Gathering Line Mandates
- Current Requirements
 - 2006 & 2008 Final Rules for Regulated Gathering Lines
- Changes to the Landscape
- Reauthorization



History

- Natural Gas Pipeline Safety Act of 1968 (NGPSA)
 - DOT receives the authority to regulate pipeline facilities and persons engaged in the transportation of gas, except for gas gathering in rural areas.
- Regulation of Gas Gathering Lines under the NGPSA
 - In 1970, DOT issues original versions of 49 CFR Parts 191 & 192, excluding rural gas gathering and defining a gas gathering line as “a pipeline that transports gas from a current production facility to a transmission line or main.”



History

- In 1974, DOT issues notice of proposed rulemaking (NPRM) to modify the definition of a gas gathering line.
- In 1978, DOT withdraws the 1974 NPRM.
- Hazardous Liquid Pipeline Safety Act (HLPESA) of 1979
 - DOT obtains new authority to regulate hazardous liquid pipelines, except for “gathering lines in rural locations or onshore production, refining, or manufacturing facilities or storage or in-plant piping systems associated with any such facilities.”
- Regulation of Gathering Lines under the HLPESA
 - In July 1981, DOT issues new version of 49 CFR Part 195, excluding all hazardous liquid gathering lines in rural locations.



History

- *Note: Prior to the HLPESA, the accident reporting requirements in 49 CFR Part 195 applied to hazardous liquid gathering lines in rural locations.*
- Pipeline Safety Act (PSA) of 1992
 - DOT receives the authority to override the prohibition on the regulation of rural gathering lines, subject to certain terms, conditions, and exclusions.
- Accountable Pipeline Safety and Partnership Act of 1996
 - DOT receives additional authority to require that owners and operators of gathering lines submit information to determine if those lines should be regulated.



Current Requirements - Gas

- March 2006 Final Rule: Onshore Gas Gathering
 - Uses American Petroleum Institute Recommended Practice 80 (API RP 80) as the basis for defining an onshore gathering line, with additional limitations.
 - *Type A Regulated Onshore Gas Gathering Lines*
 - Metallic lines with a maximum allowable operating pressure (MAOP) of 20% or more of specified minimum yield strength (SMYS), as well as nonmetallic lines with an MAOP of more than 125 psig, in a Class 2, 3, or 4 location.



Current Requirements - Gas

- Subject to all of the requirements for transmission lines, except for the accommodation of smart pigs in new and replaced lines and the gas integrity management requirements.
- Permitted to use an alternative process for complying with the operator qualification requirements.
- *Type B Regulated Onshore Gas Gathering Lines*
 - Metallic lines with an MAOP of less than 20% of SMYS, as well as nonmetallic lines with an MAOP of 125 psig or less, in a Class 2 location (as determined under one of three formulas) or in a Class 3 or Class 4 location.



Current Requirements - Gas

- Any new or substantially changed line must comply with the design, installation, construction, and initial testing and inspection requirements for transmission lines and, if of metallic construction, the corrosion control requirements for transmission lines.
- Operators must include these lines within their damage prevention and public education programs, establish the MAOP of those lines under § 192.619, and comply with the line marker requirements for transmission lines.



Current Requirements - Gas

- June 2008 Final Rule: Petroleum Gathering
 - Defines gathering line as a pipeline 8 5/8 or less that transports petroleum from a production facility.
 - Defines regulated rural gathering line as any pipeline in a rural area that has a nominal diameter of between 6 5/8 and 8 5/8 inches; operates at a stress level greater than 20 percent of the specified minimum yield strength or, in certain cases, a pressure of more than 125 psig; and is within ¼-mile of an unusually sensitive area.
 - Establishes new safety requirements for regulated rural gathering lines.



Changes to the Landscape





Gas Gathering Definition

- Relies upon API Recommended Practice to define beginning/endpoints of gathering with intended regulatory constraints
- Intended regulatory constraints contain editorial flaws
- RP contains conflicting and ambiguous language
- Operator “misuse” of ambiguous language in RP resulting in ability to circumvent regulation in populated areas



Risk Basis

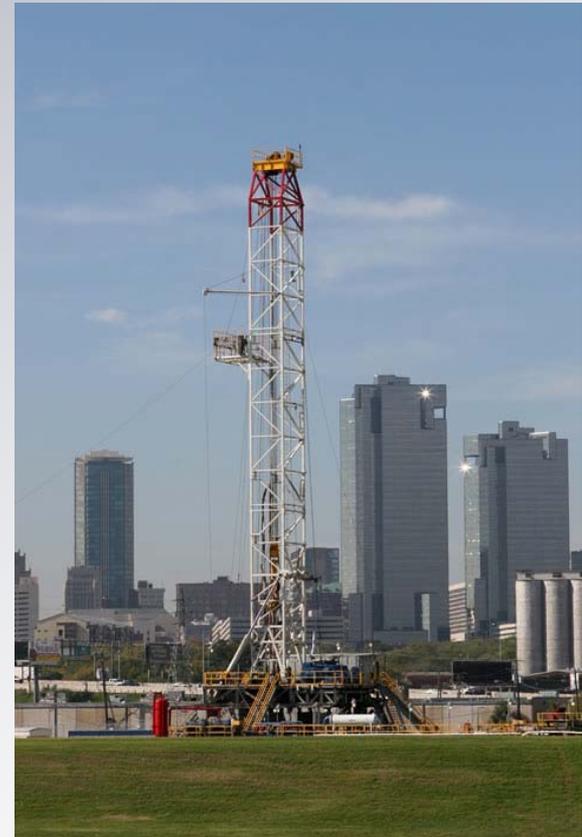
- 2006 FR was based on the premise that gathering lines were small diameter/low energy
 - Eliminated political boundaries as method for determining which gathering was regulated
 - Used Class location criteria (Class 2, 3, & 4)





Risk Basis

- “Shale” developments don’t fit that risk analysis
 - 8” -30” diameter
 - 1480# MAOP
- 2 – 14 wells located on 1-2 acre site





Risk Basis – Class 1

Aug. 19, 2000 A pipeline explosion near Carlsbad, N.M., killed 12 people.

Sept. 14, 2008 A natural gas pipeline exploded in Appomattox, Va., injuring five people, destroying two homes, and damaging 100 other properties.

Nov. 14, 2008 Three homes were destroyed and a woman badly burned when a gas gathering line exploded in Grady County, Okla. (12")

June 8, 2010 Two workers died when a bulldozer struck a gas gathering line in Darrouzett in the Texas panhandle. (14")

June 29, 2010 Three men working on a gas gathering line, also in Grady County, Okla., were hurt when it exploded. (12")

Nov. 16, 2011 Two people were hurt and three homes destroyed when an interstate natural gas transmission line exploded south of Zanesville, Ohio.



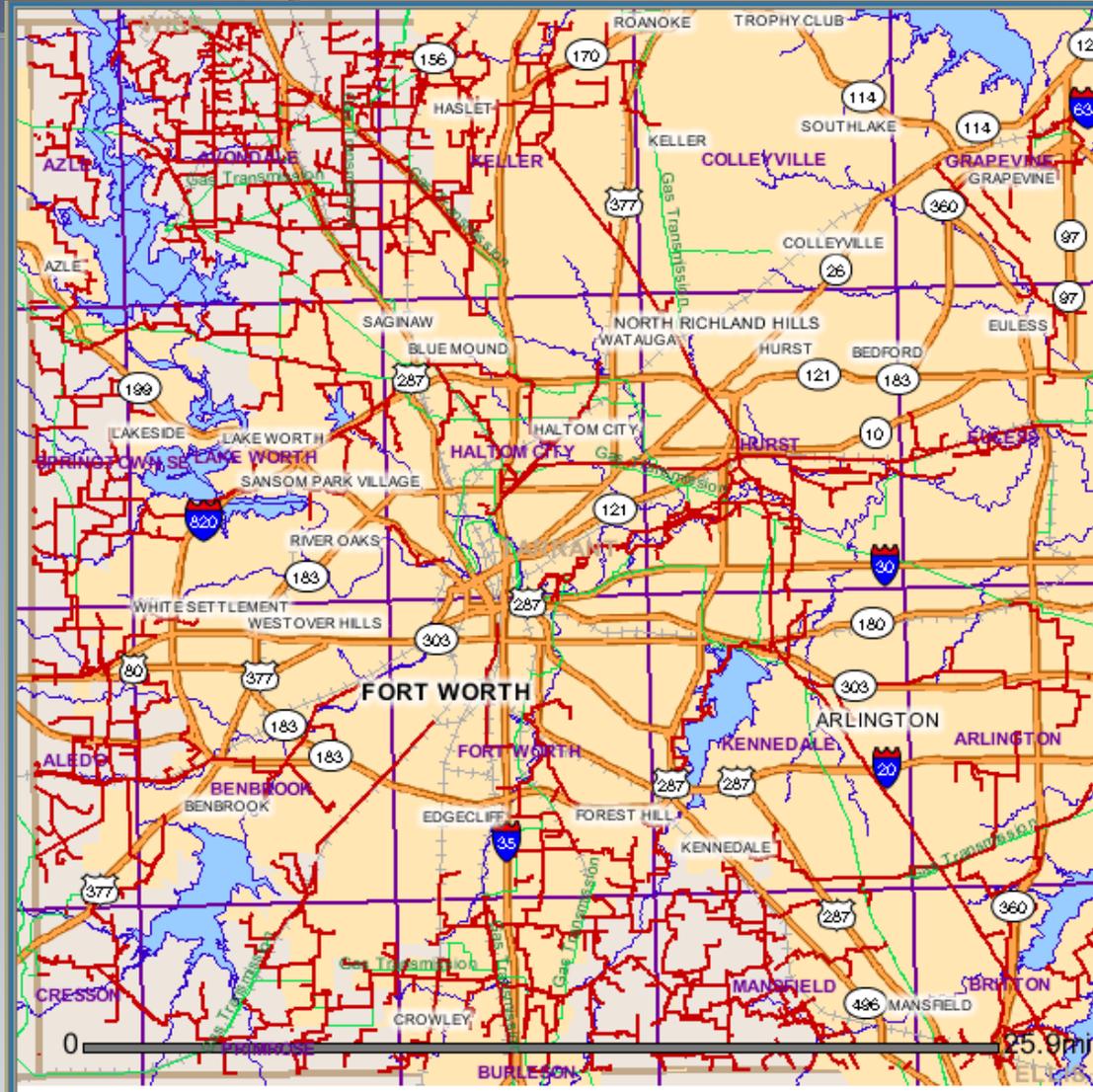
Risk Basis – Class 1

March 29, 2012 - Inside, seven giant engines that can run at more than 2,000 horsepower process about 365 million cubic feet of gas per day.

“The day of the blast, gas built up inside the compressor building when an employee apparently left a valve open during maintenance work, ...”

Several minutes later, the gas exploded, ripping open the sheet-metal roof and upper walls of the structure, damaging one of the compressor engines, and touching off a fire that burned for several hours.

“They explained that the building was designed to vent the blast up and out, ... “It mushroomed,” he said. “It did exactly what it was supposed to.”



Gas Gathering installed in Fort Worth area since 2005



Risk Basis – Tiered Structure

- Created Types “A” & “B”
- Type “A” = MAOP >20% SMYS
 - Subject to transmission requirements minus IM
 - OQ “light” in class 2
- Type “B”
 - Compliance activities directly targeted at incident causes presented by GPA at 02/04 TPSSC



Regulated vs. Non-Regulated

Year	Number of Operators	Onshore Mileage (regulated)
2005	1483	16,033
2009	327 - 378	20,150

Estimated total onshore mileage - 171,628 miles of non-regulated onshore gas gathering as reported by GPA at 02/04 TPSSC
GPA membership = 40 companies

Does not include non-regulated mileage operated by the approx 7,000 member companies of IPAA



NAPSR Resolutions

- Extend reporting requirements to all onshore gas gathering ('06)
- Add leak survey requirements to Type "B" regulated ('06)



(xx) = Year resolution adopted



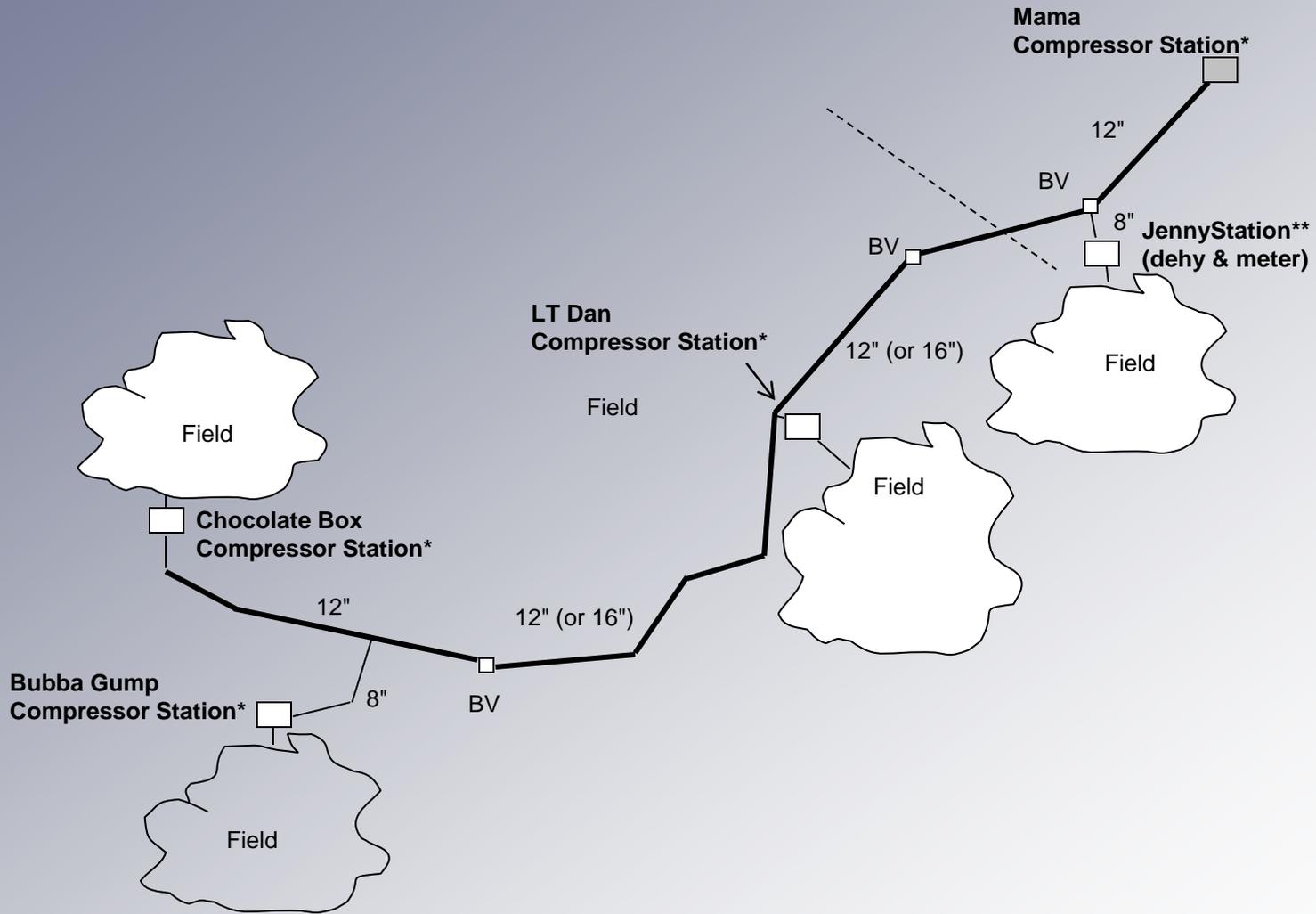
NAPSR Resolutions

- PHMSA modify 49 CFR Part 192.8 and 192.9 to establish regulatory requirements for gathering lines in Class 1 areas operating above 20% SMYS to be regulated as Type A gathering lines;
- PHMSA modify 49 CFR Part 192.8 and 192.9 to establish regulatory requirements for all gathering lines in Class 1 areas to be subject to 49 CFR Part 192.614 and 192.707 in order to minimize damage from 3rd party excavation; and
- PHMSA modify 49 CFR Part 192.8 and 192.9 to clarify its intent to establish a risk based regulation for the section of piping identified as incidental gathering in API RP 80. ('10)



Representative Samples

- Gathering systems are more complex in their configuration than transmission or distribution
- May consist of hundreds or thousands of miles of pipe in a fairly concentrated area
- May put gas into transmission or distribution or both and take it back out later





Transmission Operator B

Production



(?)



Compressor 2

Production

(?)



Compressor 1

Key

-  Distribution
-  Transmission
-  Gathering
-  Production

Transmission Operator A

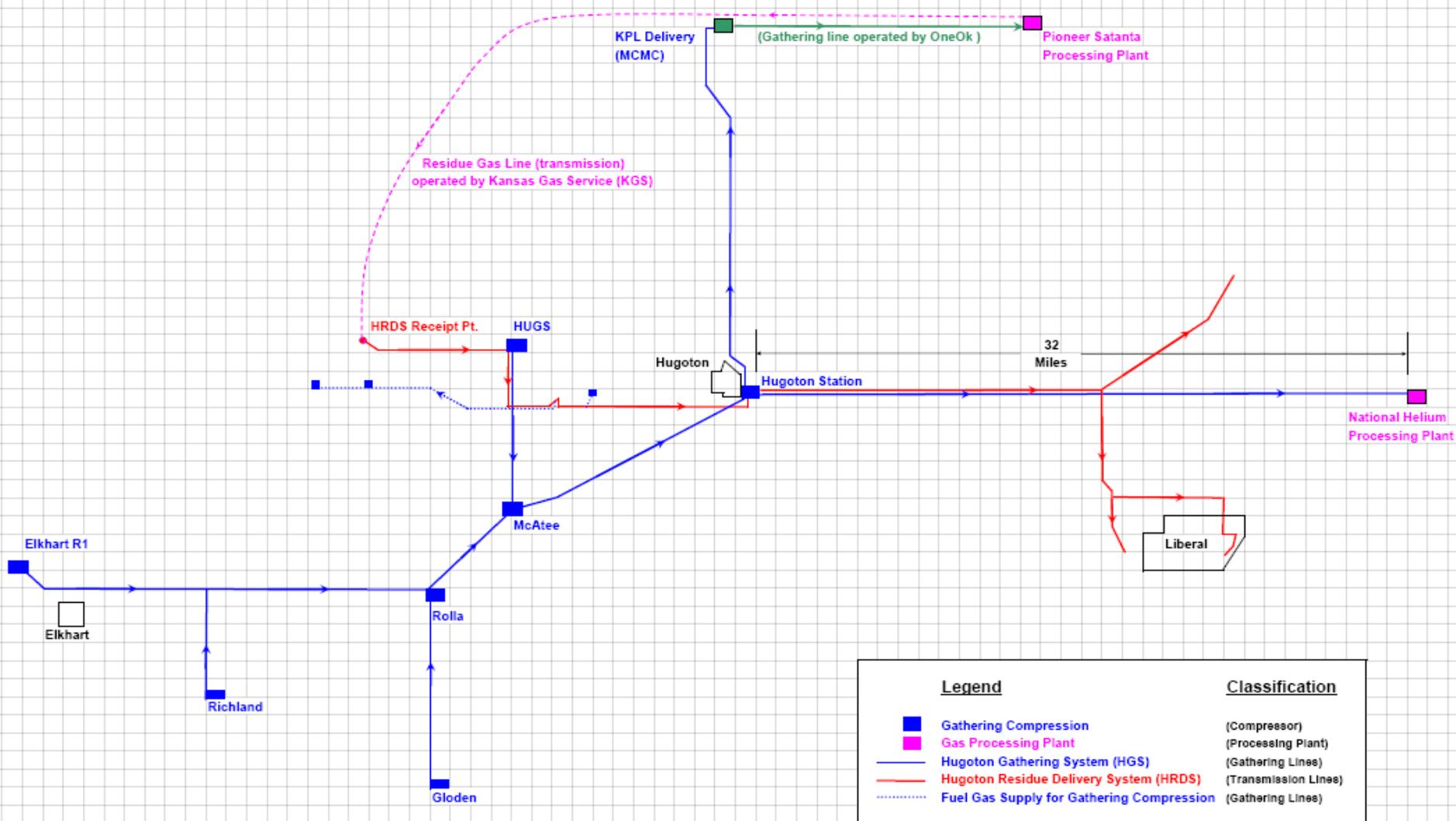
Distribution Operator



Gathering Company



January, 2007



Legend		Classification	
■	Gathering Compression	■	Gas Processing Plant
—	Hugoton Gathering System (HGS)	—	(Processing Plant)
—	Hugoton Residue Delivery System (HRDS)	—	(Gathering Lines)
⋯	Fuel Gas Supply for Gathering Compression	—	(Transmission Lines)
		—	(Gathering Lines)





Liquid Gathering Definition

- By regulation, we have defined liquid gathering as a pipeline 8 5/8" or less in diameter transporting product from a "production facility".
- "Production facility" definition developed in early 1980's with strong industry influence driven by North Slope activities.
- Statutorily prohibited from regulating certain "rural" liquid gathering.
- Conflicting language in Act between definition of "transporting hazardous liquid" and 1992 mandate to clarify "regulated" gathering.



Regulated vs. Non-Regulated

- Currently regulated
 - Non-rural
 - Crossing navigable waterways
 - (may include some GOM inlets)
 - Rural within ¼ mile of DW and Eco (6-8" >20%)
 - "Reporting" only required for "regulated" gathering
- 3644.3 miles – Regulated (2009 Annual reports)
- The Association of Oil Pipelines estimates* that there are between 30,000 and 40,000 miles of crude gathering lines in the U.S.

<http://www.pipeline101.com/Overview/energy-pl.html> *



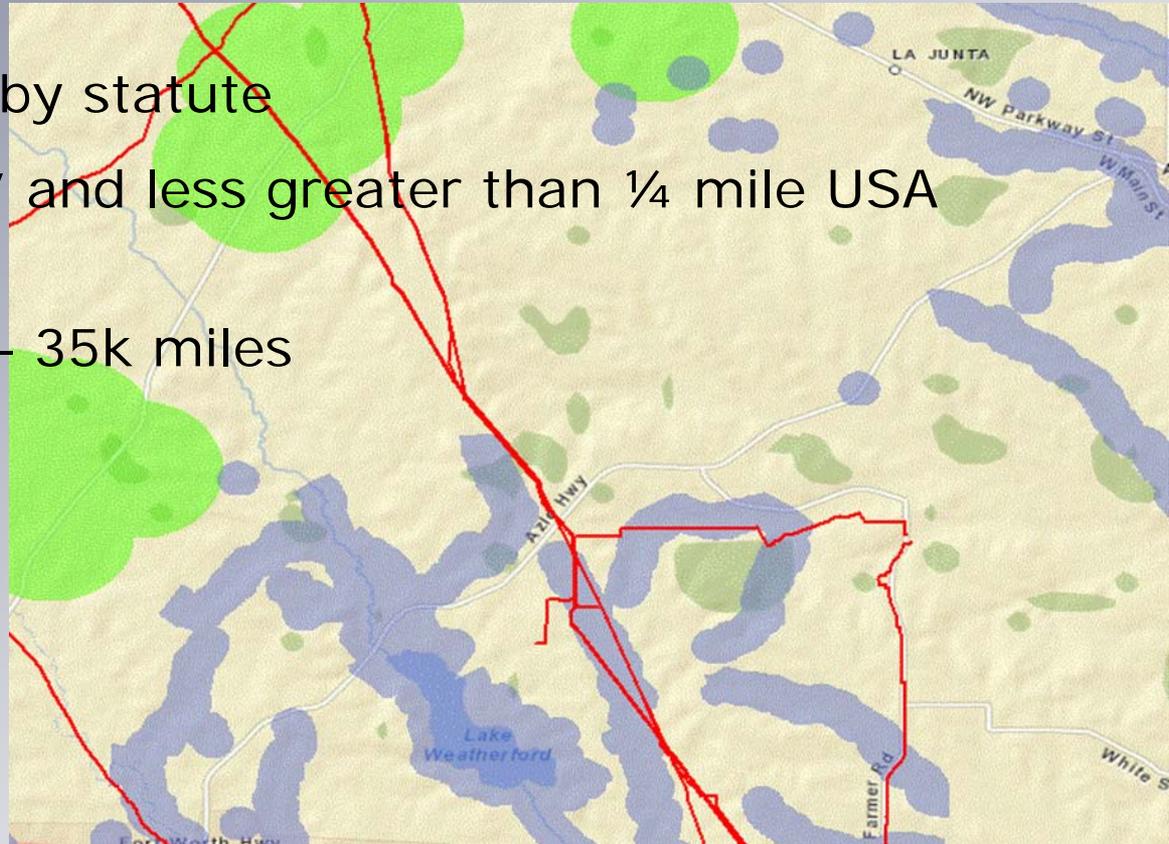
HL Regulated vs. Non-Regulated

- 2008 FR captured 1000 miles of 6" – 8" >20% SMYS within ¼ mile of USA
- Did not capture;
 - < 6" >20% SMYS within ¼ mile of USA
 - 8" or less < 20% SMYS within ¼ mile of USA
 - Rural .1" – 8" > ¼ mile of USA
- First two subsets & part of third permissible under current statutory language



Non-Regulated

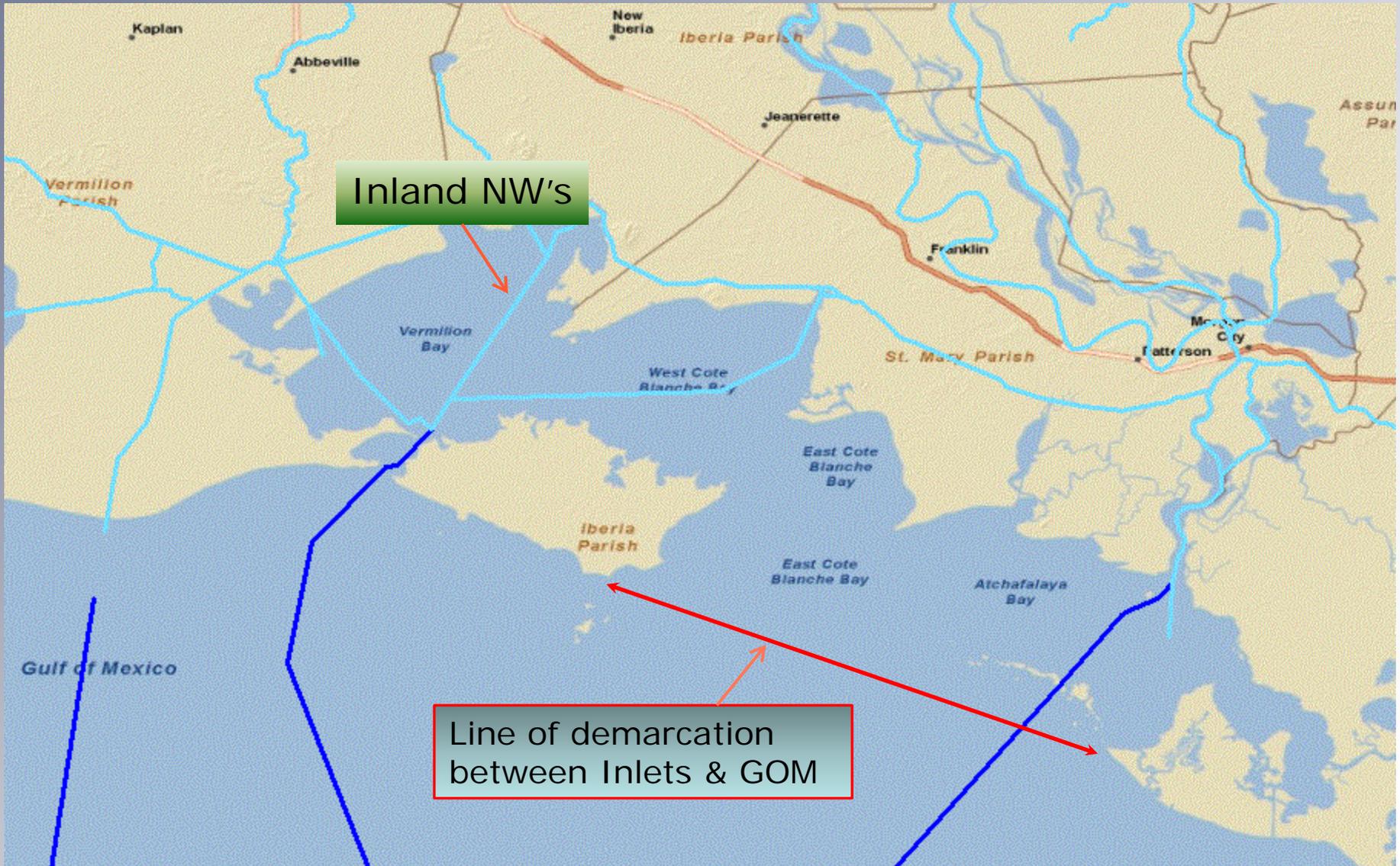
- Not permissible by statute
 - Remaining 6" and less greater than ¼ mile USA
- Potentially 30k – 35k miles

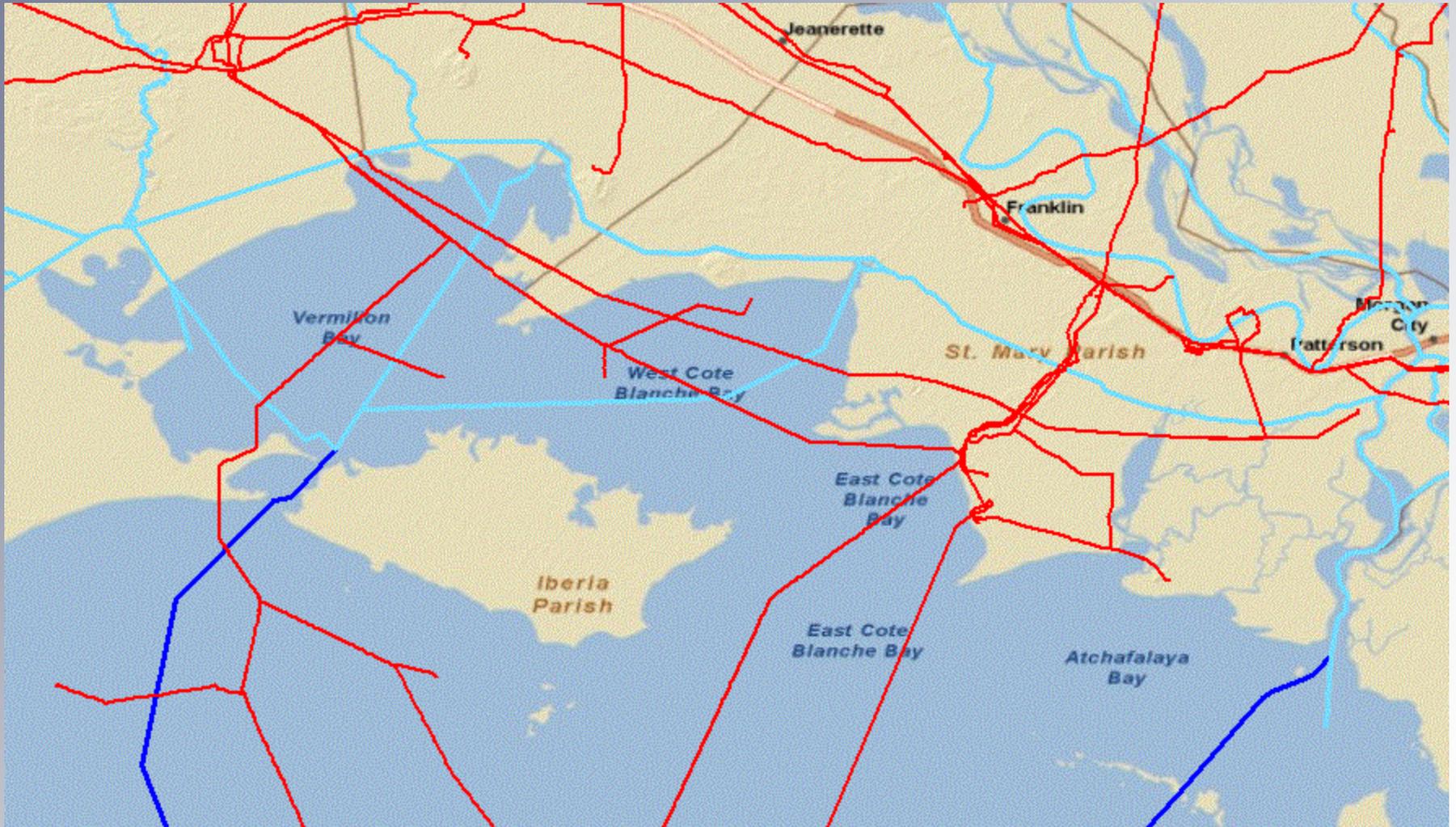




GOM and Inlets

- “Inlets” are onshore locations by definition.
 - Very limited in number, including;
 - Intercoastal waterways
 - Bays, open to the sea, such as;
 - Vermillion Bay
 - Mobile Bay
 - Galveston Bay
- Gathering which crosses NW’s is regulated







Summary of Proposed Actions

- HL Gathering package
- Gas Gathering package
- Reason – Stakeholder groups, c/b analysis issues, reduce “confusion factor”



Reauthorization

- **SEC. 21. GAS AND HAZARDOUS LIQUID GATHERING LINES.**
- (a) REVIEW.—The Secretary of Transportation shall conduct a review of existing Federal and State regulations for gas and hazardous liquid gathering lines located onshore and offshore in the United States, including within the inlets of the Gulf of Mexico.
- (b) REPORT TO CONGRESS.—
 - (1) IN GENERAL.—Not later than 2 years after the date of enactment of this Act, the Secretary shall submit... a report on the results of the review.



Reauthorization

- (2) RECOMMENDATIONS.—The report shall include the Secretary’s recommendations with respect to—
 - (A) the sufficiency of existing Federal and State laws and regulations to ensure the safety of gas and hazardous liquid gathering lines;
 - (B) the economic impacts, technical practicability, and challenges of applying existing Federal regulations to gathering lines that are not currently subject to Federal regulation when compared to the public safety benefits; and
 - (C) subject to a risk-based assessment, the need to modify or revoke existing exemptions from Federal regulation for gas and hazardous liquid gathering lines.



Reauthorization

- **SEC. 23. MAXIMUM ALLOWABLE OPERATING PRESSURE.**
- (a) IN GENERAL.—Chapter 601, as amended by this Act, is further amended by adding at the end the following:
- **“§ 60139. Maximum allowable operating pressure**
 - “(a) VERIFICATION OF RECORDS.—
 - “(1) IN GENERAL.—The Secretary of Transportation shall require each owner or operator of a pipeline facility to conduct, not later than 6 months after the date of enactment of this section, a verification of the records of the owner or operator relating to the interstate and intrastate gas transmission pipelines of the owner or operator in class 3 and class 4 locations and class 1 and class 2 high consequence areas.



Reauthorization

- “(b) REPORTING.—
- “(1) DOCUMENTATION OF CERTAIN PIPELINES.—Not later than 18 months after the date of enactment of this section, each owner or operator of a pipeline facility shall identify and submit to the Secretary documentation relating to each pipeline segment of the owner or operator described in subsection (a)(1) for which the records of the owner or operator are insufficient to confirm the established maximum allowable operating pressure of the segment.



Reauthorization

- **SEC. 24. LIMITATION ON INCORPORATION OF DOCUMENTS BY REFERENCE.**

Section 60102, as amended by this Act, is further amended by adding at the end the following:

- “(p) **LIMITATION ON INCORPORATION OF DOCUMENTS BY REFERENCE.**—Beginning 1 year after the date of enactment of this subsection, the Secretary may not issue guidance or a regulation pursuant to this chapter that incorporates by reference any documents or portions thereof unless the documents or portions thereof are made available to the public, free of charge, on an Internet Web site.”



