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The Pipeline Industry Meets Grief Unimaginable: Congress Reacts with the Pipeline Safety Improvement Act of 2002

ABSTRACT

In response to several devastating pipeline accidents, Congress implemented major changes to the nation's pipeline safety laws. By way of background, this article (1) describes the accident history leading to the passage of the new law, (2) explains basic pipeline operation, and (3) identifies the people and agencies that lobbied for change. The article then summarizes the legislative history of the new law, including some of the bills that Congress considered in the immediately preceding years. It explains the sections of the new statute and highlights the changes Congress made. The article illustrates how the new statute would have affected past accidents, had it been in place earlier, and goes on to identify where Congress fell short. Finally, the article suggests additional measures that Congress could impose if the new law fails to reduce the frequency and severity of pipeline accidents.

I. PROLOGUE

On August 19, 2000, five-year-old Kirsten Sumler was enjoying the great American outdoors with her mother, Amanda Smith. They were camping and fishing on the banks of the Pecos River with ten other members of their extended family. Six hundred and seventy five feet away, an El Paso pipeline ruptured. In an instant, six family members were burned alive. The six survivors sought shelter in the river, as the

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500-foot tall flame roared over their heads for almost an hour. When rescuers arrived, one badly burned victim begged to be shot. As the rescuers tried to evacuate Kirsten, she cried, not wanting to leave her mother. Amanda told her to go. She promised that the fireman would take good care of her. Unfortunately, Kirsten was burned well beyond the point where good care would help; she died later at the burn unit. Her mother, Amanda, and the four remaining family members also died of their injuries.

Amanda's promise to her daughter that she would be well taken care of embodies the promise that Americans expect from the pipeline industry and from the federal government's pipeline safety laws. These twelve people died because there was no requirement to inspect pipelines—ever—anywhere. These victims were not the first to die from unsafe pipelines and they may not be the last. This article describes what Congress did about the accident and where Congress fell short.

II. INTRODUCTION

On December 17, 2002, President Bush signed the new Pipeline Safety Improvement Act of 2002 (H.R. 3609). The law capped years of efforts by the National Transportation Safety Board (NTSB), state governments, and others to strengthen pipeline safety laws. The safety record from 2000 catalyzed the change:

- An El Paso Energy natural gas pipeline exploded near Carlsbad, New Mexico, killing 12 campers.¹ The incident “contributed significantly” to the California energy crisis² and New Mexico's Governor referred to the scene as one of “grief unimaginable.”³
- A gasoline pipeline rupture contaminated a Dallas water supply⁴ and led to \$2.75 per gallon gasoline and lower air quality in Chicago and Milwaukee.⁵

1. Jeff Nesmith & Ralph K.M. Haurwitz, *Pipelines: The Invisible Danger*, AUSTIN AM-STATESMAN, July 22, 2001, available at <http://www.austin360.com/aas/special/reports/pipelines/22pipecarlsbad.html> (last visited Feb. 26, 2004).

2. STAFF OF THE FED. ENERGY REGULATORY COMM'N, DOCKET NO. PA02-2-000, FINAL REPORT ON PRICE MANIPULATION IN WESTERN MARKETS—FACT-FINDING INVESTIGATION OF POTENTIAL MANIPULATION OF ELECTRIC AND NATURAL GAS PRICES IV-6 (2003) [hereinafter FERC PRICE MANIPULATION REPORT].

3. *10-fatality Pipeline Blast Deadliest Yet*, HOUSTON CHRON., Aug. 21, 2000, at 4.

4. Neil Strassman, *Company Won't Pay for Dallas Water Pipeline*, FORT WORTH STAR-TELEGRAM, July 14, 2000, available at <http://www.newslibrary.com/deliverppdoc.asp?SMH=354422> (last visited Feb. 26, 2004).

5. Melita Marie Garza, *Tulsa, Oklahoma Based Explorer Pipeline Co. to Expand Chicago Petroleum Pipeline*, KNIGHT RIDDER/TRIB. BUS. NEWS, Feb. 20, 2001 (on file with author);

- A gasoline pipeline rupture in Michigan caused more than 1200 people to evacuate from their homes, several for more than three months.⁶
- A fuel oil pipeline ruptured in Maryland, contaminated miles of the Patuxent River, and resulted in clean up costs of \$71 million dollars.⁷

These were just four of the 227 transmission pipeline failures in the year 2000.⁸ In that year alone, property damages from pipeline incidents reached a record \$197 million⁹ and fatalities (16)¹⁰ were the highest in 25 years.¹¹

More importantly, this record followed a pipeline accident in Bellingham, Washington, in 1999, where almost a quarter million gallons of gasoline spilled.¹² The ensuing explosion killed three children,¹³ sent a

Melita Marie Garza, *EPA Reduces Standards to Avoid High Gas Prices in Chicago, Milwaukee*, KNIGHT RIDDER/TRIB. BUS. NEWS, Mar. 17, 2001 (on file with author) (The Environmental Protection Agency requires cities to use particularized blends of gasoline to improve their air quality. When the pipeline broke, Chicago and Milwaukee were unable to get sufficient supplies of the special gasoline, leading to shortages and higher prices. The following year, Christine Whitman of the EPA agreed to relax environmental standards in those cities stating, "I am very concerned about the potential for price increases caused by...factors such as...pipeline disruptions.").

6. MICH. STATE POLICE, EMERGENCY MGMT. DIV., PETROLEUM AND NATURAL GAS PIPELINE ACCIDENTS. RECENT SIGNIFICANT PETROLEUM AND NATURAL GAS PIPELINE ACCIDENTS IN MICHIGAN (Nov. 2000), *available at* www.msp.state.mi.us/division/emd/hazann2000/20-Pipline_MIHAZ12.pdf (last visited Feb. 26, 2004).

7. NAT'L TRANSP. SAFETY BD., RUPTURE OF PINEY POINT OIL PIPELINE AND RELEASE OF FUEL OIL NEAR CHALK POINT, MARYLAND, Apr. 7, 2000 17, 20 (2002) [hereinafter NTSB CHALK POINT REPORT].

8. OFFICE OF PIPELINE SAFETY, NATURAL GAS PIPELINE OPERATORS INCIDENT SUMMARY STATISTICS BY YEAR, 1/1/1986-8/31/2003 TRANSMISSION OPERATORS, *available at* http://ops.dot.gov/stats/tras_sum.htm (last visited Feb. 26, 2004) [hereinafter OPS NATURAL GAS TRANSMISSION SUMMARY] (showing 80 natural gas transmission pipeline incidents in 2000); OFFICE OF PIPELINE SAFETY, HAZARDOUS LIQUID PIPELINE OPERATORS ACCIDENT SUMMARY STATISTICS BY YEAR, 1/1/1986-9/30/2003, *available at* http://ops.dot.gov/stats/lq_sum.htm (last visited Feb. 26, 2004) [hereinafter OPS LIQUID TRANSMISSION SUMMARY] (showing 147 hazardous liquid transmission pipeline incidents in 2000).

9. OPS NATURAL GAS TRANSMISSION SUMMARY, *supra* note 8; OPS LIQUID TRANSMISSION SUMMARY, *supra* note 8.

10. OPS NATURAL GAS TRANSMISSION SUMMARY, *supra* note 8; OPS LIQUID TRANSMISSION SUMMARY, *supra* note 8.

11. Press Release, U.S. Rep. Tom Udall, Udall Hails President's Signature on Pipeline Safety and Security Legislation (Dec. 17, 2002) (on file with author) [hereinafter Udall Press Release].

12. NAT'L TRANSP. SAFETY BD., PIPELINE RUPTURE AND SUBSEQUENT FIRE IN BELLINGHAM, WASHINGTON JUNE 10, 1999, at 1 (2002) [hereinafter NTSB BELLINGHAM REPORT].

13. *Id.* at 1, 8.

fireball a mile and a half long¹⁴ through the heart of a city of 69,850 people,¹⁵ and created a mushroom cloud six miles high.¹⁶ Damage claims exceeded half a billion dollars¹⁷ and are still being litigated today.¹⁸

These accidents illustrate an unrecognized hazard of pipelines. Because pipelines transport high volumes, a single, isolated accident has the potential to be catastrophic. As reported by the NTSB, a single pipeline accident "can injure hundreds of persons, affect thousands more, and cost millions of dollars in...property damage, loss of work opportunity, community disruption, ecological damage, and insurance liability."¹⁹ Although pipeline accidents are infrequent, their devastating consequences have damaged public confidence²⁰ and are making locating sites for new pipelines arduous.²¹

On the other hand, pipelines efficiently transport liquid and gas materials. A modestly sized pipeline transports the equivalent of 750 tanker trucks of gasoline in one day.²² Our 161,189 miles of liquid pipelines²³ and 307,524 miles of natural gas transmission pipelines²⁴ provide 68 percent of the nation's gasoline²⁵ and virtually all of its

14. Skye Thompson, *Olympic Pipeline Explosion: A Retrospective (One Year Later)*, THE PLANET, Spring/Summer 2000, at 4-5 [hereinafter *Olympic Pipeline Retrospective*].

15. Bellingham.org web site, www.bellingham.org/bellingham.asp (last visited May 25, 2004).

16. *Olympic Pipeline Retrospective*, *supra* note 14.

17. ARCO's Answer, Counterclaims and Cross-Claim at 8, *Olympic Pipe Line Co. v. Equilon Pipeline Co. LLC*, (W.D. Wash. 2001) (No. C01-1310) (estimating Arco's claim for the loss of use of its refinery at \$563,603,764), *but see* NTSB BELLINGHAM REPORT, *supra* note 12, at 1 (estimating that total property damages were more than \$45 million).

18. W.D. WASH., CIVIL DOCKET FOR CASE No. 2:01-CV-01310-RSL (Nov. 3, 2003).

19. NAT'L TRANSP. SAFETY BD., SAFETY STUDY—PROTECTING PUBLIC SAFETY THROUGH EXCAVATION DAMAGE PREVENTION 1 (1997) [hereinafter NTSB EXCAVATION DAMAGE PREVENTION STUDY].

20. OFFICE OF PIPELINE SAFETY, KEY POINTS ON GAS INTEGRITY MANAGEMENT RULE, available at <http://ops.dot.gov/whatsnew/GASIMPbriefstb.htm> (last visited Feb. 26, 2004).

21. See, e.g., *Fight Pressed to Reroute Gas Pipeline*, N.Y. DAILY NEWS, Nov. 15, 2002 (on file with author); Stop the Pipeline, web site, available at <http://ctstopthepipeline.com/pages/safety.htm> (last visited Feb. 26, 2004); Christine MacDonald, *Residents Voice Fears Over Proposed Pipeline*, LANSING STATE J., Jan. 5, 2002 (on file with author).

22. NAT'L ENERGY POLICY DEV. GROUP, NATIONAL ENERGY POLICY 7-9 (2001) [hereinafter NATIONAL ENERGY POLICY].

23. OFFICE OF PIPELINE SAFETY, LIQUID PIPELINE OPERATOR TOTAL NATIONAL MILEAGE, available at <http://ops.dot.gov/stats/lpo.htm> (last visited Feb. 26, 2004) [hereinafter OPS LIQUID MILEAGE].

24. OFFICE OF PIPELINE SAFETY, NATURAL GAS PIPELINE ANNUAL MILEAGE, available at <http://ops.dot.gov/stats/GTANNUAL2.HTM> (last visited Feb. 26, 2004) [hereinafter OPS GAS MILEAGE].

25. *Reauthorization of the Natural Gas Pipeline Safety Act and the Hazardous Liquid Pipeline Safety Act Before the House Comm. on Energy & Commerce Subcomm. on Energy & Air Quality*,

natural gas.²⁶ Furthermore, pipelines have the lowest number of fatalities annually of any mode of transportation.²⁷

However, pipelines are near homes, schoolyards, and churches, highlighting the need for safety.²⁸ Furthermore, many of the nation's pipelines are 30 to 50 years old.²⁹ Periodically verifying their integrity is essential—both to protect communities near pipelines and those who depend upon the materials they bring. Yet, in 2000, pipelines remained uninspected and unsafe.

A. The Gathering Storm of Protest That Led Congress to Act

1. The National Transportation Safety Board

As the NTSB studied and reported about accidents, it grew increasingly frustrated with the federal Office of Pipeline Safety (OPS). Time after time, OPS ignored NTSB recommendations, and preventable accidents continued to occur.³⁰

NTSB Chairman, Jim Hall, criticized industry tactics to reduce OPS funding and to oppose stronger regulations. In a speech to the Association of Oil Pipelines, he suggested that such efforts were shortsighted and envisioned the possibility of criminal charges.³¹ This prediction proved prescient when convictions resulted from the Bellingham accident.³² This was the first time in the 30-year history of pipeline safety laws that criminal sanctions were imposed.³³

While the NTSB was investigating the 1999 Bellingham pipeline accident, the Board received further cause for alarm when an accident

Mar. 19, 2002 (statement of William Shea, President and CEO Buckeye Pipeline Company, L.P.).

26. NATIONAL ENERGY POLICY, *supra* note 22, at 7-11.

27. NTSB EXCAVATION DAMAGE PREVENTION STUDY, *supra* note 19.

28. Chuck Moseman, Project Director, Shell Pipeline Co. LP, *Our Pipeline Supports Stronger Regulations and Commits to Safety*, E. MOUNTAIN TELEGRAPH, Sept. 12, 2002, at 5.

29. *Pipeline Safety: Hearing before the National Transportation Safety Board*, Nov. 15, 2000 (remarks of Chairman Jim Hall) [hereinafter NTSB Pipeline Safety Hearing].

30. Jim Hall, Chairman, Nat'l Transp. Safety Bd., Address to the Ass'n of Oil Pipe Lines (Dec. 1, 1999).

31. *Id.*

32. See Plea Agreement at 1, *United States v. Frank Hopf, Jr.* (W.D. Wash. 2002) (No. CR01-338R); Plea Agreement at 1-2, *United States v. Ronald Dean Brentson* (W.D. Wash. 2002) (No. CR01-338R); Plea Agreement at 2, *United States v. Olympic Pipe Line Co.* (W.D. Wash. 2002) (No. CR01-338R); Plea Agreement at 2, *United States v. Equilon Pipeline Co., LLC* (W.D. Wash. 2002) (No. CR01-338R); Plea Agreement at 1, *United States v. Kevin Scott Dyvig* (W.D. Wash. 2002) (No. CR01-338R).

33. Steve Miletich, *Execs in Pipeline Blast Get Prison Time – A First*, SEATTLE TIMES, June 19, 2003 (on file with author).

occurred near Carlsbad, New Mexico.³⁴ Twelve people were camping on the banks of the Pecos River, 675 feet away from where the pipeline ruptured.³⁵ Natural gas under high pressure spewed into their campsite and reached their campfire.³⁶ The ensuing explosion set off seismographs 14 miles away,³⁷ with 500-foot high flames³⁸ that burned for almost an hour.³⁹ Six campers died instantly; six died later from their injuries.⁴⁰ Additionally, the explosion extensively damaged nearby steel suspension bridges,⁴¹ destroyed three vehicles,⁴² and interrupted pipeline service for almost a year.⁴³ That service interruption "contributed significantly" to the California energy crisis.⁴⁴ A federal grand jury is presently investigating the accident.⁴⁵

Immediately afterwards, NTSB Chairman Hall again voiced concern saying, "No American would want to use any transportation vehicle that would not be properly inspected for 48 years, nor should we have pipelines traveling through any of our communities in this condition."⁴⁶ NTSB had been recommending periodic inspections of pipelines since 1987, to no avail.⁴⁷

NTSB's report on the Carlsbad accident concluded that corrosion developing inside the pipeline went undetected because El Paso's corrosion control program "failed to prevent, detect, or control internal corrosion within the company's pipeline."⁴⁸ The NTSB also criticized

34. NAT'L TRANSP. SAFETY BD., PIPELINE ACCIDENT REPORT: NATURAL GAS PIPELINE RUPTURE AND FIRE NEAR CARLSBAD, NEW MEXICO AUG. 19, 2000, at 1 (2003) [hereinafter CARLSBAD NTSB REPORT].

35. *Id.* at 1, 9.

36. *Ten Dead, Two Cling to Life*, ROSWELL DAILY REC. NEWS, Aug. 21, 2000 (on file with author) (noting that the campers had a small campfire and a Coleman lantern).

37. Fritz Thompson, *N.M. Tech Instrument Logged 3 Sound Waves*, ALBUQUERQUE J., Aug. 23, 2000, at A1.

38. CARLSBAD NTSB REPORT, *supra* note 34, at 12.

39. *Id.* at 1.

40. Tania Soussan, *Why, God, Why?*, ALBUQUERQUE J., Aug. 21, 2000, at A1.

41. CARLSBAD NTSB REPORT, *supra* note 34, at 1.

42. *Id.*

43. Michael Coleman, *Pipeline That Killed Twelve near Carlsbad Reopened*, ALBUQUERQUE J., July 7, 2001 (on file with author).

44. FERC PRICE MANIPULATION REPORT, *supra* note 2.

45. SEC, FORM 10-Q: EL PASO CORP 32 (Sept. 30, 2003).

46. Press Release, Jim Hall, Chairman, NTSB, Statement on Carlsbad, New Mexico, Pipeline Accident (Aug. 24, 2000) (on file with author).

47. *Reauthorization of the Natural Gas Pipeline Safety Act and the Hazardous Liquid Pipeline Safety Act: Testimony on Pipeline Safety before the Subcomm. on Energy and Air Quality of the House Comm. on Energy and Commerce* (Mar. 19, 2002) (statement of Robert Chipkevich, Director, Office of Railroad, Pipeline and Hazardous Materials Investigations, NTSB) [hereinafter Chipkevich testimony].

48. CARLSBAD NTSB REPORT, *supra* note 34, at 50.

OPS, noting that the agency had conducted 26 “inspections” of El Paso Corporation (the pipeline operator) over ten years and never discovered the faults in its corrosion control program.⁴⁹ Nonetheless, after the accident, OPS had no difficulty finding numerous faults.⁵⁰

2. *The States and Their Citizens*

Several States shared the concerns of the NTSB. Washington state representatives asked Congress to protect state (rather than federal) interstate pipeline company inspections.⁵¹ An activist refuted the need for federal preemption.⁵² A Virginia city attorney complained that his hometown lost its public water supply to a pipeline failure not once, but twice.⁵³ State government inspectors complained to Congress that the Department of Transportation was summarily limiting states’ roles in inspecting pipeline companies despite statutory language to the contrary⁵⁴ and suggested that state inspectors would be better able to

49. *Id.* at 28, 50.

50. John W. Somerhalder II, Pres., El Paso Energy Pipeline Group, CPF No. 4-2001-1004 (Dep’t of Transp. 2001) (Notice of probable violation proposed civil penalty and proposed compliance order for four violations, issued by Southwest Region).

51. *Reauthorization of Dep’t. of Transp. Office of Pipeline Safety: Before the Subcomm. on Highways and Transit of the House Transp. Comm.* (Feb. 13, 2002) (statement by Chuck Mosher, Chairman, Washington State Citizens Committee on Pipeline Safety, “We believe it is critical that OPS be directed in law to establish partnerships with willing states and delegate to these states authority to oversee interstate pipelines. This is our number one priority.”).

52. *Hearing on the Bellingham, Washington, Hazardous Liquid Pipeline Explosion: Before the Subcomm. on Econ. Dev., Pub. Bldgs., Hazardous Materials, and Pipeline Transp. of the House Comm. on Transp. and Infrastructure* (Oct. 27, 1999) (testimony of Carl Weimer, Safe Bellingham, “To take but one obvious example, the trucking industry, whose fleets criss-cross our state borders thousands of times a day, are subject to safety requirements at the state and local level....The sooner states and local government are given the power to protect their citizens, the sooner we will see significant advances made in safety protection for this industry.”).

53. *Hearing Before the Senate Comm. on Commerce, Sci., and Transp.* (May 11, 2000) (testimony of James M. Pates, City Attorney, Fredericksburg, Va., on behalf of the National Pipeline Reform Coalition, “In 1980 and again in 1989, my hometown of 20,000 people lost its public water supply for a week due to oil spills in the Rappahannock River.”) [hereinafter Nat’l Pipeline Reform Coalition testimony].

54. *Hearings Before Senate Comm. on Commerce, Sci. and Transp.* (May 4, 2000) (testimony of Charles R. Kenow, Vice-Chairman of Nat’l Ass’n of Pipeline Safety Representatives, [R]ecent actions by DOT to summarily limit the states’ past role in inspecting interstate pipelines remains of concern....The removal and limitation of state resources is analogous to disengaging a seasoned, trained force and their field commander from the battlefield and replacing them with a force from a foreign country that does not know the local customs, people, terrain or rules of engagement....History has proven, more than once, this isn’t the way to win the battle.).

conduct more frequent and thorough inspections than OPS.⁵⁵ The U.S. General Accounting Office (GAO) agreed with them.⁵⁶

Community activists with spirits forged in the cauldron of the Bellingham explosion testified to Congress.⁵⁷ Marlene Robinson, whose son Liam Wood suffocated on gasoline fumes while fishing, reported, "Every living thing in the creek was killed for a mile and a half. Trees were incinerated and rocks cracked in the 2000 degree heat."⁵⁸ She complained that OPS rarely imposed fines and required no inspections and that the agency was unduly influenced by the interests of industry.⁵⁹

3. Industry Reaction

In contrast, the industry's position sometimes seemed oblivious to reality. The Interstate Natural Gas Association of America (INGAA) complained that requiring a specific type of inspection or a required frequency of inspection of natural gas pipelines would interrupt natural gas service and be too costly to consumers.⁶⁰ However, unsafe pipelines could cause interruptions of service, too.⁶¹ In fact, OPS later estimated that the Carlsbad accident cost California \$17.5 million dollars a day in

55. *Reauthorization of the Natural Gas Pipeline Safety Act and the Hazardous Liquid Pipeline Safety Act: Hearings before the Subcomm. on Energy and Air Quality of the House Energy and Commerce Comm.* (Mar. 19, 2002) (statement of James D. Anderson, National Vice-President, Nat'l Ass'n of Pipeline Safety Representatives, "The ability to inspect these facilities using OPS guidelines and training will provide assistance to the OPS in performing more frequently and thorough inspections than have normally been performed due to lack of OPS resources.").

56. *Office of Pipeline Safety Oversight: Hearing before the Subcomm. on Energy and Air Quality of the House Comm. on Energy and Commerce* (Mar. 19, 2002) (testimony of PETER F. GUERRERO, DIR. OF PHYSICAL INFRASTRUCTURE ISSUES, GEN. ACCOUNTING OFFICE, PUB. NO. GAO-02-517I, PIPELINE SAFETY: STATUS OF IMPROVING OVERSIGHT OF THE PIPELINE INDUS. (2002)).

57. *The Bellingham, Washington Hazardous Liquid Pipeline Incident: Hearing before the Subcomm. on Econ. Dev., Pub. Bldgs., Hazardous Materials and Pipeline Transportation of the House Comm. on Transp. and Infrastructure* (Oct. 27, 1999) (Witness List).

58. *Reauthorization of the Office of Pipeline Safety: Hearing before the Subcomm. on Highways and Transit of the House Comm. on Trans. and Infrastructure* (Feb. 13, 2002) (testimony of Marlene Robinson, Safe Bellingham) [hereinafter Robinson testimony].

59. *Id.*

60. *Reauthorization of the Natural Gas Pipeline Safety Act and the Hazardous Liquid Pipeline Safety Act: Hearing on H.R. 3609 before the Subcomm. on Energy and Air Quality of the House Comm. on Energy and Commerce* (Mar. 19, 2002) (statement of William J. Haener, Vice-President of Natural Gas CMS Engineer Corp., on behalf of the Interstate Natural Gas Ass'n of Am.) [hereinafter INGAA testimony].

61. Energy Policy Act of 2002, H.R. 4, 148th Cong. § 778a 4-5 (2002); FERC PRICE MANIPULATION REPORT, *supra* note 2, at 1.

higher natural gas prices.⁶² If, as suggested by the Carlsbad accident, undiscovered corrosion were occurring on the nation's aging pipelines, the absence of inspections would decrease the reliability of service and would invite interruptions due to unanticipated ruptures.

In another contradiction, industry testimony to Congress opposed prescriptive legislation; reasoning that "one size fits all" would not fit pipelines.⁶³ But less than three weeks after that testimony, the industry defendants in the Bellingham criminal trial complained that existing laws were too vague to support a criminal prosecution.⁶⁴ It is hard to see how Congress could make a law less vague without also making it more prescriptive.

4. *The Results*

Although the new law did not please everyone,⁶⁵ Congress passed a tougher law with many prescriptive standards.⁶⁶ Some improvements are obvious but others that are equally important are quite subtle. While the new law is not a model of clarity and strength, a comparison with its predecessor shows how far Congress came from the former *laissez faire* approach to pipeline safety.

Understanding the new Pipeline Safety Improvement Act of 2002 requires a basic understanding of pipelines as well as a survey of the changes that Congress implemented. With this foundation, we can then ask whether the new law might have prevented or mitigated previous accidents, and what more should be done.

62. Pipeline Safety: Pipeline Integrity Management in High Consequence Areas (Gas Transmission Pipelines); Final Rule, 68 Fed. Reg. 69,778, 69,782 (Dec. 15, 2003) (to be codified at 49 C.F.R. Part 192).

63. *Reauthorization of the Natural Gas Pipeline Safety Act and the Hazardous Liquid Pipeline Safety Act: Hearing Before the Subcomm. on Energy and Air Quality of the House Comm. on Energy and Commerce* (Mar. 19, 2002) (testimony of Herman Morris, Jr., President and CEO Memphis Light, Gas & Water) [hereinafter Memphis Light, Gas & Water testimony].

64. Defendants' Motion to Dismiss Indictment on Vagueness Grounds at 12, *United States of America v. Olympic Pipe Line Co.*, (W.D. Wash.) (No. CR01-338R) ("[E]ven industry experts cannot say with certainty what is required by these regulations.").

65. Ellyn Ferguson, *Politicians Hail New Pipeline Bill; Father Critical*, BELLINGHAM HERALD, Nov. 16, 2002 (on file with author).

66. Udall Press Release, *supra* note 11.

III. UNDERSTANDING PIPELINES

A. Operation

Pipelines are steel pipes⁶⁷ that transport liquid and gas materials from where they are extracted or produced to where they are utilized.⁶⁸ Many different materials are transported by pipeline including natural gas, crude oil, refined products (gasoline, jet fuel, and diesel), natural gas liquids (including such components as ethane, propane, and butane), and carbon dioxide.⁶⁹ These materials begin their pipeline journey at coastal ports, oil or gas wells, or refineries⁷⁰ and may travel thousands of miles.⁷¹ The final destination may be a home (natural gas),⁷² a refined products terminal that supplies local gas stations (refined products),⁷³ a petrochemical factory (natural gas liquids),⁷⁴ or an oil refinery (crude oil).⁷⁵

Pipelines are controlled by a Supervisory Control and Data Acquisition system (SCADA)⁷⁶ consisting of computer hardware and software. SCADA regulates pressure and flow and controls pumps and compressors. Remote sensing units monitor operating conditions along the miles of pipeline and transmit the data to the SCADA system, which is centrally located and staffed 24 hours a day, 365 days a year.⁷⁷

B. Hazardous Liquid versus Natural Gas Pipelines

The Department of Transportation (DOT) regulates natural gas and liquid pipelines differently.⁷⁸ Gas pipelines are divided into those that carry gas in large quantities over long distances, transmission

67. JOHN L. KENNEDY, OIL AND GAS PIPELINE FUNDAMENTALS 49 (2nd ed. 1993).

68. *Id.* at 1. Most oil and gas pipelines in the United States are constructed of longitudinally welded pipe, *id.* at 51, and are coated to prevent corrosion. *Id.* at 60.

69. *Id.* at 28–43.

70. *Id.* at 1,5.

71. *Id.* at 1.

72. *Id.*

73. *Id.* at 37.

74. *Id.*

75. *Id.* at 6.

76. *Id.* at 215.

77. Ass'n of Oil Pipe Lines, *Pipeline Industry Facts – Using Control Systems for Pipeline Operation and Monitoring* (2002), available at <http://www.aopl.org/pubs/2002/Using%20Control%20Systems%20Final%20Aug%2028.pdf> (last visited Feb. 24, 2004).

78. See Transportation of natural and other gas by pipeline: minimum Federal safety standards, 49 C.F.R. § 192 (2002); Transportation of hazardous liquids by pipeline, 49 C.F.R. § 195 (2002).

pipelines, and local distribution pipelines.⁷⁹ Natural gas pipelines are divided further into class locations with greater safety measures imposed as population density increases.⁸⁰

Historically, rules governing liquid pipelines did not address changes in population density. However, in December 2000, the DOT promulgated new regulations that, for the first time, required liquid pipeline companies to identify where their pipelines could affect “high consequence areas” and required inspections in those areas.⁸¹ For liquid pipelines, high consequence areas include not only areas of high population but also commercial waterways and other areas that are “unusually sensitive.”⁸²

C. Monitoring the Integrity of Pipelines

Although SCADA systems “monitor” pipelines, they detect a problem only by sensing a change in pressure or flow rate. At that point, however, a release may have already occurred. Because of the potentially severe consequences, prevention is critically important. Prevention, in turn, requires monitoring the pipeline’s integrity.

Integrity testing begins when a pipeline is first constructed. Welds are X-rayed⁸³ and the pipeline is “hydrostatically tested.” Hydrostatic testing requires filling each segment of the pipeline with water and pressurizing it to determine whether it will hold the pressure.⁸⁴ Because the hydrostatic testing is done at a higher pressure than the operating pressure, it is assumed that the pipeline will not rupture during normal operation. Hydrostatic testing is required for new pipeline construction.⁸⁵ Unfortunately, if hydrostatic testing is used to test an operating pipeline, it interrupts service⁸⁶ and introduces water

79. Compare 49 C.F.R. §§ 192.705, .706, .707, .709, .711, .713, .715, .717, .719 (2002) with 49 C.F.R. §§ 192.721, .723 (2002).

80. Class Locations, 49 C.F.R. 192.5 (2002). If, when a pipeline is built, it is in a Class 2 area but more homes are built near the pipeline (changing the classification to Class 3), the company may be required to operate the pipeline at a lower pressure. See Change in Class Location: Confirmation or Revision of Maximum Allowable Operating Pressure, 49 C.F.R. § 192.611 (2002).

81. 49 C.F.R. §§ 195.450(1)–(4) (2002) (defining “high consequence areas”).

82. *Id.* §§ (1), (4); 49 C.F.R. § 195.6 (2002) (these include drinking water sources and environmentally sensitive areas).

83. KENNEDY, *supra* note 67, at 157.

84. *Id.* at 162.

85. See 49 C.F.R. § 192.505; 49 C.F.R. §§ 195.302, .304.

86. 68 Fed. Reg. 4278, 4302 (Jan. 28, 2003).

into the pipeline, which, if not completely removed, may cause corrosion.⁸⁷

Another way of monitoring integrity is with internal in-line inspection devices, known as "smart pigs."⁸⁸ "Smart pigs" detect some, but not all, defects in a pipeline⁸⁹ by creeping through the pipeline and using magnets and sensors to detect where the pipeline wall "leaks" the magnetic force field.⁹⁰ This leakage happens where the pipe wall has thinned due to corrosion. Correctly interpreting smart pig data can be problematic, however.⁹¹ If the pipeline has had prior inspections, a comparison of a recent report with an older report may reveal time dependent changes.⁹² Highly skilled engineers are integral to an effective internal inspection program.⁹³

Because many pipelines cannot accommodate a smart pig⁹⁴ and hydrostatic testing is costly and interrupts service, operators depend on other methods, broadly known as "direct assessment" (DA), to monitor pipeline integrity. DA is a process in which a pipeline operator integrates knowledge about the pipeline's characteristics and operating history with incidents of internal corrosion and information gleaned from testing of coating condition to make inferences about likely places where the pipeline's integrity may fail. The company then excavates the pipeline in such places to examine its integrity directly (hence the name "direct" assessment). The excavation provides an opportunity to visually examine the pipeline and perhaps use ultrasound to measure the thickness of the pipe wall.⁹⁵ However, as its name suggests, this method inspects only the areas chosen for sampling, not the entire pipeline. Therefore, similar to all studies based on sampling, the results are suspect because most of the pipeline remains uninspected.

87. *Id.*

88. NTSB Pipeline Safety Hearing, *supra* note 29.

89. *Hearing on the Bellingham, Washington Hazardous Liquid Pipeline Explosion before the Subcomm. on Econ. Dev., Pub. Bldgs., Hazardous Materials, and Pipeline Transp. of the House Comm. on Transp. and Infrastructure* (Oct. 27, 1999) (testimony of Rep. Jay Inslee); NTSB Pipeline Safety Hearing, *supra* note 29 (testimony of Ravi Krishnamurthy).

90. NTSB Pipeline Safety Hearing, *supra* note 29 (testimony of Ravi Krishnamurthy).

91. *See, e.g.*, NTSB BELLINGHAM REPORT, *supra* note 12, at 59-61.

92. *Id.*

93. NTSB Pipeline Safety Hearing, *supra* note 29 (testimony of Ravi Krishnamurthy).

94. *Hearing Regarding Pipeline Safety Research and Development before the Subcomm. on Energy of the House Comm. on Science* (Mar. 13, 2002) (testimony of Terry Boss, Vice President of Environment, Safety and Operations, INGAA) [hereinafter INGAA Pipeline R & D testimony].

95. Joe L. Pikas, *Direct Assessment, Data Integration Important in Establishing Pipeline Integrity*, OIL & GAS J., Sept. 2, 2002, at 66 [hereinafter OGJ Direct Assessment].

D. Causes of Pipeline Accidents

The most common cause of liquid and natural gas transmission pipeline accidents is corrosion (about 24 percent), while the most common cause of an accident on a natural gas distribution pipeline is outside force damage (57 percent).^{96, 97}

IV. THE PREVIOUS LEGAL FRAMEWORK FOR PIPELINE SAFETY

A. Prior Statutes

The first statute regulating pipeline safety was the Natural Gas Pipeline Safety Act of 1968,⁹⁸ which Congress amended in 1976.⁹⁹ Congress added liquid pipelines to the statute in the Pipeline Safety Act of 1979.¹⁰⁰ Subsequent bills included the Pipeline Safety Reauthorization Act of 1988,¹⁰¹ the Pipeline Safety Act of 1992,¹⁰² the Accountable Pipeline

96. OFFICE OF PIPELINE SAFETY, TRANSMISSION PIPELINE INCIDENT SUMMARY BY CAUSE 1/1/2002–12/31/2002 (2002); OFFICE OF PIPELINE SAFETY, HAZARDOUS LIQUID PIPELINE ACCIDENT SUMMARY BY CAUSE 1/1/2002–12/31/2002 (2002); OFFICE OF PIPELINE SAFETY, DISTRIBUTION PIPELINE INCIDENT SUMMARY BY CAUSE 1/2/2002–12/31/2002; “Outside force damage” is a catch-all term that includes (1) third party excavation damage, (2) excavation damage caused by the pipeline company itself, (3) landslides, (4) fire, (5) lightning, (6) snow, (7) wind, (8) motor vehicle accidents, and (9) vandalism, *see* Instructions for Completing Form RSPA F 7100.2 (3-84) Incident Report—Gas Transmission and Gathering Systems, Part B: Damage by Outside Forces).

97. Another less frequent category deserves mention. Seam weld failure on liquid pipelines (when the longitudinal seam of the pipe splits open) accounted for only a small percentage (four to five percent) of pipeline accidents but, in 2002, accounted for more than a third of the property damages caused by liquid pipelines annually. OFFICE OF PIPELINE SAFETY, HAZARDOUS LIQUID PIPELINE ACCIDENT SUMMARY BY CAUSE 1/1/2002–12/31/2002 (2002), *supra* note 96; this type of failure occurs almost exclusively on pipelines constructed before 1970 using a now abandoned welding technique. JOHN F. KIEFNER & CHERYL J. TRENCH, OIL PIPELINE CHARACTERISTICS AND RISK FACTORS: ILLUSTRATIONS FROM THE DECADE OF CONSTRUCTION 33 (Am. Petroleum Inst. 2001).

98. Natural Gas Pipeline Safety Act of 1968, Pub. L. No. 90-481, 82 Stat. 720 (1968).

99. Natural Gas Pipeline Safety Act Amendments of 1976, Pub. L. No. 94-477, 90 Stat. 2073 (1976).

100. Pipeline Safety Act of 1979, Pub. L. No. 96-129, §§ 201–218, 93 Stat. 989 (1979) (adding the Hazardous Liquid Pipeline Safety Act in Title II).

101. Pipeline Safety Reauthorization Act of 1988, Pub. L. No. 100-561, 102 Stat. 2805 (1988).

102. Pipeline Safety Act of 1992, Pub. L. No. 102-508, 106 Stat. 3289 (1992).

Safety and Partnership Act of 1996,¹⁰³ and now the Pipeline Safety Improvement Act of 2002.¹⁰⁴

B. Prior Regulation – The Office of Pipeline Safety

Congress created the Office of Pipeline Safety (OPS) in 1968¹⁰⁵ to oversee and implement pipeline safety regulations. OPS is housed in the Department of Transportation (DOT) under the Research and Special Programs Administration (RSPA).¹⁰⁶ OPS oversees interstate pipelines while states are responsible for intrastate pipelines.¹⁰⁷

Since its inception, OPS has had a poor record as a regulator. In 1978, the General Accounting Office (GAO) reported that OPS had weak enforcement, inaccurate records, and ineffective rules.¹⁰⁸ Twenty-two years later, in 2000, the GAO produced another report that criticized the agency's unwillingness to work with states and weak enforcement.¹⁰⁹ GAO's conclusions were reemphasized by the testimony received for the Pipeline Safety Act of 2002.¹¹⁰

There was much dissatisfaction with OPS. As of 2001, OPS did not have even a map of the pipelines it regulated.¹¹¹ Additionally, OPS had the lowest implementation rate of NTSB recommendations (69

103. Accountable Pipeline Safety and Partnership Act of 1996, Pub. L. No. 104-304, 110 Stat. 3793 (1996).

104. Pipeline Safety Improvement Act of 2002, Pub. L. No. 107-355, 116 Stat. 2985 (2002) [hereinafter H.R. 3609 final version].

105. Jeff Nesmith & Ralph K.M. Haurwitz, *Pipeline Office Is Small Agency with Big Job and Many Critics*, AUSTIN AM.-STATESMAN, July 22, 2001 (on file with author).

106. *Id.*

107. 49 U.S.C. §§ 60104(c), 60105(a) (2000).

108. Nesmith & Haurwitz, *supra* note 105.

109. U.S. GEN. ACCOUNTING OFFICE, *THE OFFICE OF PIPELINE SAFETY IS CHANGING HOW IT OVERSEES THE PIPELINE INDUSTRY* 35 (2000) [hereinafter GAO 2000 Report].

110. See, e.g., *Reauthorization of the Natural Gas Pipeline Safety Act and the Hazardous Liquid Pipeline Safety Act: Hearings Before the Subcomm. on Energy and Air Quality of the House Comm. on Energy and Commerce*, 107th Cong. (Mar. 19, 2002) (testimony of Bruce Nilles, Attorney, Earthjustice Oakland Regional Office) [hereinafter Earthjustice testimony]; *Reauthorization of the Natural Gas Pipeline Safety Act and the Hazardous Liquid Pipeline Safety Act: Hearings before the Subcomm. on Highways and Transit of the House Comm. of Transp. and Infrastructure*, 107th Cong. (Feb. 13, 2002) (testimony of Mark R. Dayton, Dep. Assistant Inspector General of the U.S. Dep't of Transp.) [hereinafter DOT IG testimony].

111. Mike Madden, *Bush: Speed Pipeline Reviews*, BELLINGHAM HERALD, Jan. 28, 2001 (on file with author); DOT IG testimony, *supra* note 110 (commenting on OPS's reliance on voluntary submission of mapping data by pipeline operators, "This progress is too little, too late. OPS should move forward on a rulemaking for mandatory reporting of these data immediately.").

percent) of any agency in the Department of Transportation.¹¹² Even the pipeline industry as a whole had a higher rate of implementation of NTSB recommendations (87 percent)¹¹³ than OPS. The NTSB,¹¹⁴ the DOT Inspector General,¹¹⁵ and even the American Petroleum Institute¹¹⁶ criticized the agency's accident data collection methods.

Recognition of the problems at OPS came from both houses of Congress. For example, Sen. Domenici (R-NM) stated, "Unfortunately the Office of Pipeline Safety has had a poor history of regulation and enforcement."¹¹⁷ Representatives Dingell (D-MI) and Oberstar (D-MN) criticized the agency's failure to issue pipeline inspection regulations despite a six-year-old congressional law requiring them;¹¹⁸ Rep. Pascrell (D-NJ) complained, "there is little or no enforcement of existing regulations."¹¹⁹

V. THE PIPELINE SAFETY IMPROVEMENT ACT OF 2002

A. Legislative History

The 1999 Bellingham pipeline incident led to the first attempt to reform pipeline safety laws. By the fall of 2000, the Senate had passed S.2438 and referred it to the House.¹²⁰ Although this earlier bill contained many topics similar to what eventually passed, it was less prescriptive.

Because it was late in the session, the House could only consider it by suspending its rules, which meant it would take a two-thirds vote

112. *Pipeline Safety Act: Hearings Before the Senate Comm. on Commerce, Sci., and Transp.*, 106th Cong. (May 11, 2000) (testimony of John Hammerschmidt, Member, NTSB).

113. *Id.*

114. NAT'L TRANSP. SAFETY BD., EVALUATION OF ACCIDENT DATA AND FEDERAL OVERSIGHT OF PETROLEUM PRODUCT PIPELINES 46-47 (1996).

115. ALEXIS M. STEFANI, OFFICE OF THE INSPECTOR GENERAL, DEP'T OF TRANSP., AUDIT REPORT—PIPELINE SAFETY PROGRAM 16-17 (2000) [hereinafter DOT IG AUDIT REPORT].

116. KIEFNER & TRENCH, *supra* note 97, at 26.

117. 147 CONG. REC. S524 (2001) (statement of Sen. Domenici).

118. Letter from James Oberstar & John D. Dingell, Reps., to colleagues (Sept. 18, 2000) (asking their colleagues to vote no on S. 2438 "to ensure that the House considers a bill that will prevent future pipeline tragedies"), available at http://www.house.gov/transportation_democrats/press/000919_PipelineSafety.htm (last visited Mar. 30, 2004).

119. 146 CONG. REC. H7841 (2000) (statement of Rep. Pascrell).

120. King and Tsiorvas Pipeline Safety Act of 2000, S. 2438, 106th Cong. (2000) (as reported in the Senate Aug. 25, 2000, this bill was named after the two ten-year-olds that died in the Bellingham explosion; see Katherine Pflieger, *NTSB Faults Pipeline Firm in Deadly 1999 Explosion*, SEATTLETIMES.COM, Oct. 9, 2002 (on file with author) (describing the two ten-year-olds Wade King and Stephen Tsiorvas).

to pass it.¹²¹ Pipeline safety advocates opposed the bill, arguing that it was insufficiently prescriptive. The parents of the children killed in Bellingham criticized the bill's excessive faith in the OPS, saying, "If you tell an agency to do something 22 times and they ignore you, by what logic do you think they will pay attention the 23rd time?"¹²² Congressman Inslee of Washington said, "I am not a scientist... But there is one thing I do know, and that is that nobody has ever gotten a different result by doing the same thing."¹²³ Although 59 percent of the House voted in favor of the bill the Senate had approved, it failed to get the necessary two-thirds majority and was rejected.¹²⁴

In 2001, ten Senators introduced S.235,¹²⁵ which the Senate promptly passed. However, during the months that had passed since S.2438 was defeated, an intervening election had transferred Congress to Republican control. House hearings were never scheduled on S. 235. Don Young, the powerful Chairman of the House Transportation and Infrastructure Committee, was not a fan of a prescriptive new statute for pipeline safety.¹²⁶ Nonetheless, he did an about face six months later and introduced his own bill. Two events associated with security and pipelines may have contributed to his change of heart.

The first event was the terrorist attack of September 11, 2001. While that did not directly affect pipelines, it raised concerns about security. Then, just one month later, a lone drunk gunman in Alaska fired a rifle at the Trans-Alaska pipeline and started a leak, shutting down one-fifth of U.S. oil production.¹²⁷ Coming on the heels of September 11th, this demonstrated the vulnerability of pipelines to security breaches.

By December 2001, Young introduced his own bill, emphasizing security as much as safety of pipelines.¹²⁸ Signaling a tough fight for

121. 146 CONG. REC. H9548, 9557 (2000) (statement of Rep. Barton, "But we are late in the session, so we have put the Senate bill on the floor under suspension of the rules, which means it will take a two-thirds vote to pass this legislation later this evening.>").

122. Marlene Robinson et al., *Pipeline Safety: Don't Sacrifice the Good for the Status Quo*, SEATTLE TIMES, Oct. 6, 2000 (on file with author).

123. 146 CONG. REC. H9548-01, H9557 (2000) (statement of Rep. Inslee).

124. 146 CONG. REC. H9573 (2000) (the roll call was yeas 232, nays 158, not voting 42).

125. Pipeline Safety Improvement Act of 2001, S. 235, 107th Cong. (2001).

126. Press Release, Rep. Don Young, Chairman, House Comm. on Transp. & Infrastructure (June 27, 2001) (on file with author).

127. Defenders' Environmental Network, *SECURITY RISK: Gunman Shoots Hole in Trans-Alaska Pipeline*, Oct. 17, 2001, available at <http://www.defenders.org/den/dl00051.html> (last visited Mar. 30, 2004) (on file with author).

128. Pipeline Infrastructure Protection to Enhance Security and Safety Act, H.R. 3609, 107th Cong. (2001) (as introduced in the House Dec. 20, 2001) [hereinafter H.R. 3609 as introduced].

safety advocates, he explained that his new bill would provide a “less prescriptive approach.”¹²⁹ The House referred the bill to Young’s Committee on Transportation and Infrastructure and Rep. Tauzin’s (R-LA) Committee on Energy and Commerce.

Chairman Young’s committee began work in February 2002, hearing from one of the parents who lost a child in the Bellingham accident,¹³⁰ industry representatives,¹³¹ the DOT Inspector General,¹³² and a pipeline employee union representative.¹³³ In March, Rep. Tauzin’s Committee on Energy and Commerce heard from the NTSB,¹³⁴ industry representatives,¹³⁵ a union representative,¹³⁶ nonprofit groups with interest in preventing pipeline spills,¹³⁷ and the Administrator of the DOT Research and Special Programs Administration.¹³⁸ Much to Rep. Young’s chagrin, Rep. Tauzin’s committee passed its own bill as a substitute.¹³⁹

129. Press Release, Leadership of House Transp. & Infrastructure Comm. & the Energy & Commerce Comm., Pipeline Infrastructure Protection to Enhance Security and Safety Act (Dec. 20, 2001) (“This bill generally differs from other approaches in that it is less prescriptive...”) (on file with author).

130. Robinson testimony, *supra* note 58.

131. *Reauthorization of the Office of Pipeline Safety: Hearing Before the Subcomm. on Highways and Transit of the House Comm. on Trans. and Infrastructure* (Mar. 19, 2002) (testimony of William J. Haener, Executive Vice President Natural Gas, CMS Energy Corp. on behalf of the Interstate Natural Gas Ass’n of Am.).

132. DOT IG testimony, *supra* note 110.

133. *Reauthorization of the Office of Pipeline Safety: Hearing Before the Subcomm. on Highways and Transit of the House Comm. on Trans. and Infrastructure* (Feb. 13, 2002) (testimony of Ryan P. Berg, President, General Workers Committee PACE International Union) [hereinafter PACE International Union testimony].

134. Chipkevich testimony, *supra* note 47.

135. *INGAA testimony, supra* note 60; *Reauthorization of the Natural Gas Pipeline Safety Act and the Hazardous Liquid Pipeline Safety Act: Before the Subcomm. on Energy and Air Quality of the House Comm. on Energy and Commerce* (Mar. 19, 2002) (testimony of Mark L. Hereth, Senior Vice President, HSB Solomon).

136. *Reauthorization of the Natural Gas Pipeline Safety Act and the Hazardous Liquid Pipeline Safety Act: Before the Subcomm. on Energy and Air Quality of the House Comm. on Energy and Commerce* (Mar. 19, 2002) (testimony of Edward C. Sullivan, President, Bldg. and Constr. Trades Dep’t, AFL-CIO) [hereinafter AFL-CIO testimony].

137. *Reauthorization of the Natural Gas Pipeline Safety Act and the Hazardous Liquid Pipeline Safety Act: Before the Subcomm. on Energy and Air Quality of the House Comm. on Energy and Commerce* (Mar. 19, 2002) (testimony of Robert R. Kipp, Executive Dir., Common Ground Alliance [hereinafter Common Ground Alliance testimony]; Earthjustice testimony, *supra* note 110).

138. *Reauthorization of the Natural Gas Pipeline Safety Act and the Hazardous Liquid Pipeline Safety Act: Before the Subcomm. on Energy and Air Quality of the House Comm. on Energy and Commerce* (Mar. 19, 2002) (testimony of Ellen G. Engleman, Adm’r Research and Special Programs Admin., U.S. Dep’t. of Transp.).

139. James C. Benton, *House Pipeline Security Bill Hindered by Committee Spats on Its Way to Floor Action*, CQ WEEKLY, June 15, 2002, at 1600.

The two powerful House committees finally negotiated a compromise¹⁴⁰ and brought the measure to a vote on July 23, 2002, where it passed almost unanimously.¹⁴¹ The bill then headed for the Senate where that chamber's version of the pipeline safety bill was included in the massive and controversial Energy Policy Act of 2002.¹⁴²

Ultimately, controversial issues doomed the energy bill (*e.g.*, whether to drill in the Alaska Wildlife Refuge), but the conferees managed to salvage the pipeline safety provisions.¹⁴³ The chairmen and ranking members of the House committees accepted amendments from their counterparts in the Senate,¹⁴⁴ and both the Senate and the House passed the legislation just one day apart.^{145, 146} The president then signed it on December 17, 2002.¹⁴⁷

Despite its introduction in the House as the "Pipeline Infrastructure Protection to Enhance Security and Safety Act,"¹⁴⁸ political maneuvering stripped away all of the sections expressly addressing security.¹⁴⁹ The short title of the final bill is "Pipeline Safety Improvement Act of 2002."¹⁵⁰

B. The New Law – Changing the Balance of Power

The Pipeline Safety Improvement Act of 2002 simultaneously strengthened OPS enforcement powers while limiting OPS discretion. In contrast, limits on OPS translated into additional state power and strengthened the voice of the public in regulatory matters. By placing

140. James C. Benton, *Pipeline Safety Linked to Energy Measure*, CQ WEEKLY, July 27, 2002, at 2063.

141. H.R. 3609, 107th Cong. (2002) (as engrossed in House) [hereinafter H.R. 3609 as engrossed in House]; 148 CONG. REC. H5306 (July 23, 2002) (Roll Call. No. 334, the vote was 423 yeas to 4 nays).

142. Energy Policy Act of 2002, H.R. 4, 107th Cong., Subtitle C—Pipeline Safety (engrossed in Senate, Apr. 25, 2002).

143. Samuel Goldreich, *Congress Fails to Reach Deal on Omnibus Energy Legislation; Settles for Pipeline Safety Bill*, CQ WEEKLY, Nov. 16, 2002, at 3027.

144. 148 CONG. REC. S11067–S11069 (2002) (Joint Explanatory Statement submitted by Sen. Hollings).

145. H.R. 3609, 107th Cong. (2002) as engrossed in Senate [hereinafter H.R. 3609 as engrossed in Senate]; 148 CONG. REC. S10966 (2002).

146. 148 CONG. REC. H8925 (2002).

147. H.R. 3609 final version, *supra* note 104.

148. H.R. 3609 as introduced, *supra* note 128.

149. Compare H.R. 3609 as introduced, *supra* note 128, with H.R. 3609 final version, *supra* note 104 (Note that the original section 5. Safety Orders and Security Recommendations, section 11. Security of Pipeline Facilities, and section 14. Pipeline Security-Sensitive Information have all either been deleted or were changed to remove the word "security.").

150. H.R. 3609 final version, *supra* note 104, § 1.

new mandates on the industry, Congress narrowed OPS discretion and short-circuited OPS foot dragging by making some mandates effective whether or not OPS completed accompanying regulations. Congress strengthened the criminal penalties for excavators who damage pipelines. Furthermore, Congress funded several studies and called for a major new research effort on certain issues.

C. Reworking the Office of Pipeline Safety (OPS)

Section 7. Safety Orders

Section 8. Penalties

Section 18. Implementation of Inspector General Recommendations

Section 19. NTSB Safety Recommendations

Section 20. Miscellaneous Amendments

Section 22. Authorization of Appropriations

Comparing the new law to its predecessor highlights the weakness of the old act. Section 7, Safety Orders, illustrates this contrast. It gives OPS a new power—the power to order necessary corrective action for a “potential safety related condition.”¹⁵¹ It is stunning to realize that OPS did not have that authority after more than 30 years of pipeline safety laws.¹⁵² The Office of Pipeline Safety requested this section so that corrective action could be taken immediately rather than waiting for an accident to prove that a facility was unsafe.¹⁵³ Unsurprisingly, in view of the demonstrated need, this section passed almost unchanged from the version that was introduced.¹⁵⁴

Section 8, Penalties,¹⁵⁵ increased OPS penalty and enforcement authority. Historically, enforcement was minimal. Penalties amounted to less than five cents per barrel spilled.¹⁵⁶ The General Accounting Office reported that OPS had virtually abandoned fines as an enforcement

151. H.R. 3609 final version, *supra* note 104, § 7 (granting the secretary the power to impose Safety Orders).

152. See Part IV: The Previous Legal Framework for Pipeline Safety *supra* and *supra* notes 98–104.

153. 148 CONG. REC. S11067, 11068 (Nov. 14, 2002) (Joint Explanatory Statement).

154. Compare H.R. 3609 as introduced, *supra* note 128, § 5 (“potentially unsafe condition”), with H.R. 3609, 107th Cong. as engrossed in the House, *supra* note 141, § 5 (“potentially unsafe condition”), and with H.R. 3609, 107th Cong. § 7 (2002) (engrossed in the Senate) [hereinafter H.R. 3609 engrossed in Senate] (“potential safety-related condition”) (emphasis added).

155. H.R. 3609 final version, *supra* note 104, § 8.

156. Nat'l Pipeline Reform Coalition testimony, *supra* note 53.

measure because OPS believed it was more constructive to work with companies rather than argue over fines.¹⁵⁷

Virtually every committee that considered this issue increased the penalty authority but as the bill moved through Congress, this section grew teeth. The bill introduced by Chairman Young merely increased penalties by 50 to 100 percent.¹⁵⁸ The House not only increased the penalties further (100 to 300 percent), but also re-wrote the rules for assessing penalties. The House authorized corrective action if a pipeline “is or would be” hazardous and required that harm to the environment be considered in setting penalties. It further permitted the secretary to consider the economic benefit gained from the violation without reduction for subsequent damages, narrowed the matters the secretary must consider in assessing penalties, and strengthened judicial enforcement provisions.¹⁵⁹

The House changes were still not strong enough for the Senate, however. That chamber insisted that the Comptroller General conduct a study of OPS policies and procedures in assessing and collecting fines.¹⁶⁰ This study is due within one year of passage of the Act and should keep the enforcement issue on the front burner. The extensive debate over penalties suggests that Congress rejected the OPS’s “constructive” approach to enforcement and preferred sterner measures.

Congress gave DOT several prescriptive mandates in sections 18, Implementation of Inspector General Recommendations, and 19, NTSB Safety Recommendations. Section 18 requires implementation of the safety recommendations made by a critical DOT Inspector General (IG) audit.¹⁶¹ To assure oversight, Congress required the secretary to submit progress reports on the implementation of those recommendations every 90 days to oversight committees in the House and the Senate until each recommendation was completed. This last requirement suggests that Congress was impatient with OPS intransigence.

157. GAO 2000 Report, *supra* note 109, at 26 (The GAO reported that OPS proposed fines in only four percent of enforcement actions in 1998).

158. H.R. 3609 as introduced, *supra* note 128, § 6.

159. H.R. 3609 engrossed in House, *supra* note 141, § 6.

160. H.R. 3609 engrossed in Senate, *supra* note 145, § 8(d).

161. H.R. 3609 final version, *supra* note 104, § 18; DOT IG AUDIT REPORT, *supra* note 115, at 3-5 (suggesting that RSPA should (1) finalize actions required by laws passed in 1992 and 1996, (2) expand its research into pipeline inspection technologies, (3) train OPS inspectors on the use and interpretation of internal inspection devices, (4) revise its accident reporting system, (5) revise regulations to require companies to submit updated accident reports when required, and (6) establish a timetable for implementing NTSB recommendations with which RSPA agreed).

In section 19, Congress directed the Secretary of Transportation to formally respond to every pipeline safety recommendation made by the NTSB.¹⁶² While there was already a general statute that required DOT responses to NTSB recommendations,¹⁶³ the new law removed any doubt whether Congress intended to include NTSB recommendations about pipeline safety. The new Act also requires public availability of DOT responses to NTSB recommendations and annual reporting to Congress.

If the previous sections did not provide enough direction to OPS, section 20, under the innocuous title of “Miscellaneous Amendments,” set out a new purpose for OPS and sought to increase public involvement.¹⁶⁴ Under the old law, OPS regulations were merely “minimum safety standards.”¹⁶⁵ Now, Congress wrote a new purpose into the law—to provide “adequate protection against risks to life and property posed by pipeline transportation and pipeline facilities by improving the regulatory and enforcement authority of the Secretary of Transportation.”¹⁶⁶

To increase public involvement, Congress modified the membership of OPS’s Technical Pipeline Safety Committees (TPSC). By statute,¹⁶⁷ these Committees advise OPS about the “technical feasibility, reasonableness, cost effectiveness, and practicability” of proposed regulations.¹⁶⁸ The fifteen members are divided equally among government, industry, and the public.¹⁶⁹ In the new Act, Congress required that persons filling the public seats must not have a significant financial interest in the pipeline, petroleum, or gas industry, assuring truly *public* representation.¹⁷⁰

This new section summarizes congressional intent for the new law: (1) higher safety standards (adequate, not minimum), (2) an agency more responsive to the public, and (3) an agency better equipped to withstand industry influence.

162. H.R. 3609 final version, *supra* note 104, § 19.

163. Secretary of Transportation’s Responses to Safety Recommendations, 49 U.S.C. § 1135 (2000).

164. H.R. 3609 final version, *supra* note 104, § 20.

165. 49 U.S.C. § 60102(a)(1) (2000).

166. H.R. 3609 final version, *supra* note 104, § 20 (emphasis added).

167. 49 U.S.C. § 60115 (2000).

168. *Id.* at (c)(2).

169. *Id.* at (b)(3).

170. H.R. 3609 final version, *supra* note 104, § 20; 148 CONG. REC. S11067, 11069 (Nov. 13, 2002).

In section 22, Authorization of Appropriations, Congress went beyond pro forma support and appropriated almost nine times more money for pipeline safety than the appropriations a decade earlier.¹⁷¹

D. Strengthening the States

Section 4. State Oversight Role

Section 24. State Pipeline Safety Advisory Committees

Although Congress had permitted the states to take over inspections of pipeline companies since the adoption of the first pipeline safety law, OPS had been summarily refusing to grant many states such authority.¹⁷²

Improving state oversight was included in S.2438 (the bill that almost passed Congress in the fall of 2000)¹⁷³ and S. 235, which the Senate approved in February 2001.¹⁷⁴ Although Chairman Young did not propose such measures in his "less prescriptive" bill in December 2001,¹⁷⁵ the House committees added that provision.¹⁷⁶

Congress shifted the balance of power from the federal government to states in section 4, State Oversight Role. Although the secretary retains sole enforcement authority,¹⁷⁷ Congress enumerated the requirements for a state to take over inspection authority, thus narrowing the secretary's discretion to deny that authority to a state.¹⁷⁸ Congress entirely rewrote the procedure for terminating state inspection authority and permitted the secretary to give an opportunity to correct deficiencies before ending a state's inspection authority.¹⁷⁹

While the previous law mandated that states inform the secretary of pipeline safety violations, it did not require the secretary to respond.¹⁸⁰ Now, section 4 requires the secretary to respond within 60 days to state allegations of violations of pipeline safety standards.¹⁸¹

171. Compare Pipeline Safety Act of 1992, Pub. L. No. 102-508 §§ 114, 214, 106 Stat. 3289 (1992) (appropriations totaled \$8,005,500) with H.R. 3609 final version, *supra* note 104, § 22 (appropriations for fiscal year 2003 totaled \$71,600,000).

172. Natural Gas Pipeline Safety Act, Pub. L. No. 90-481 § 5, 82 Stat. 720, 722-23 (1968); see also *supra* note 54.

173. King and Tsiorvas Pipeline Safety Improvement Act of 2000, S. 2438, 106th Cong. § 9 (2000).

174. Pipeline Safety Improvement Act of 2001, S. 235, 107th Cong. § 9 (2001).

175. H.R. 3609 as introduced, *supra* note 128.

176. H.R. 3609 as engrossed in the House, *supra* note 141, § 22.

177. H.R. 3609 final version, *supra* note 104, § 4(a)(3).

178. *Id.*

179. *Id.* § 4(b).

180. 49 U.S.C. § 60106(b) (2000).

181. H.R. 3609 final version, *supra* note 104, § 4(c).

Under the new law, the secretary must either take appropriate enforcement action or provide written notice to the state explaining why the secretary decided against enforcement.^{182, 183}

The Senate added another measure to strengthen state power—section 24, State Pipeline Safety Advisory Committees.¹⁸⁴ This provision requires the secretary to respond within 90 days to recommendations for improvements from State Pipeline Safety Committees appointed by a governor. If states take advantage of their strengthened oversight role and use a Pipeline Safety Advisory Committee, they will have a more powerful voice at the federal level where pipeline safety is concerned.

E. Strengthening the Voice of the Public

Section 5. Public Education Programs

Section 9. Pipeline Safety Information Grants to Communities

The NTSB has concluded that educating communities about the pipelines in their midst would save lives.¹⁸⁵ Such programs promote the use of One-Call systems to reduce excavation accidents and explain the hazards of leaks to residents.¹⁸⁶ Public education programs have been part of pipeline safety laws since at least 1976,¹⁸⁷ but they have only applied to natural gas pipelines.¹⁸⁸

Congress added hazardous liquid pipelines to the statutory scheme in section 5, Public Education Programs.¹⁸⁹ Once again narrowing the agency's discretion, Congress defined "education" (how to recognize leaks and what steps to take if a leak is suspected), directed who was to be educated (municipalities, school districts, businesses, and residents in the vicinity of the pipeline), and required the secretary to periodically review these programs.¹⁹⁰

182. *Id.*

183. Now that states are statutorily entitled to a decision and explanation, it raises the possibility that a dissatisfied state could challenge the secretary's enforcement decision under the Administrative Procedures Act, 5 U.S.C. § 706 (2000).

184. Compare H.R. 3609 as engrossed in the House, *supra* note 141, § 1, Table of Contents with H.R. 3609 as engrossed in the Senate, *supra* note 145, § 24.

185. NAT'L TRANSP. SAFETY BD., PIPELINE RUPTURE, LIQUID BUTANE RELEASE, AND FIRE, LIVELY, TEXAS AUG. 24, 1996 24-26 (1998) (highlighting a longstanding NTSB concern about inadequacies of community education about pipelines).

186. *Id.* at 26.

187. Natural Gas Pipeline Safety Act Amendments of 1976, Pub. L. No. 94-477 § 8, 90 Stat. 2073 (1976).

188. 49 U.S.C. § 60116 (2000).

189. H.R. 3609 final version, *supra* note 104, § 5.

190. *Id.*

In addition to educating the public about pipelines, in section 9, Pipeline Safety Information Grants to Communities, Congress implemented a new federal grant program that provides “technical assistance” grants to local groups and nonprofit organizations.¹⁹¹ This provision opened a great divide between Chairman Tauzin (whose Committee added the provision) and the bill’s sponsor, Chairman Young, who complained, “I didn’t know we were in the business of funding anti-pipeline activists.”¹⁹² His concerns were ultimately resolved in the Senate when that chamber added an exception to prevent funding community groups working on the safety of the Trans-Alaskan Pipeline in Chairman Young’s home state.¹⁹³

The technical assistance grants cannot be used for litigation or lobbying expenses—they can only be used to pay for engineering and scientific analysis of pipeline safety issues or for promotion of public participation in official proceedings. The Senate also required annual reporting to the Senate Commerce, Science and Transportation and House Energy and Commerce Committees identifying the name and location of each recipient, outlining the purpose of the grant, and describing how the money was used.¹⁹⁴

Early versions of the bill also sought to strengthen the voice of the public by providing a Community Right-to-Know section. That provision did not survive.¹⁹⁵ Although many proponents of pipeline safety believed that communities with pipelines should have a right to know about them,¹⁹⁶ security concerns post 9/11 made the discussion too controversial to include in the pipeline safety bill, and it was deferred for later consideration in the broader context of homeland security legislation.¹⁹⁷

F. Mandates to Industry

Section 6. Protection of Employees Providing Pipeline Safety Information

191. *Id.* § 9.

192. Benton, *supra* note 140.

193. Compare H.R. 3609 as engrossed in the House, *supra* note 141, § 7 with H.R. 3609 as engrossed in the Senate, *supra* note 145, § 9 (the later Senate version excludes grants for facilities regulated under Pub. L. No. 93-153, 43 U.S.C. § 1651. That statute pertains to the Trans-Alaska pipeline.).

194. H.R. 3609 final version, *supra* note 104, § 9.

195. Compare H.R. Rep. No. 107-605 Part 1 (showing that, in the version of H.R. 3609 reported out of the Comm. on Transp. & Infrastructure, § 6 was titled “Community-Right-to-Know and Emergency Preparedness”) with H.R. 3609 final version, *supra* note 104 (lacking a section on Community Right-to-Know).

196. 148 CONG. REC. H5273, H5283–H5285 (July 23, 2002) (statements of Rep. Larsen & Rep. Dunn).

197. *Id.* (statement of Rep. Dunn).

Section 10. Operator Assistance in Investigations

Section 13. Pipeline Qualification Programs

Section 14. Risk Analysis and Integrity Management Programs for Gas Pipelines

Section 15. National Pipeline Mapping System

The DOT's broad discretion was the source of problems in previous pipeline safety laws. In order to implement a statute, the DOT Research and Special Programs Administration (RSPA) uses its discretion to conduct rulemaking and write regulations interpreting and defining the statute. Broader discretion gives an agency more leeway in crafting the regulation's language. In a technical area like pipeline safety, rulemaking is dominated by industry representatives, with minimal public input.¹⁹⁸ To change that dynamic, in imposing new industry mandates, Congress involved additional federal agencies in pipeline safety and narrowed OPS discretion.

Congress authorized the Department of Labor (DOL) to institute whistleblower protection for employees of pipeline companies by adding section 6, Protection of Employees Providing Pipeline Safety Information.¹⁹⁹ The new statute prohibits employers from discriminating against employees that provide pipeline safety information to their employer or to the federal government. The DOL will oversee a complaint procedure that may provide remedies including orders for back pay, reinstatement, and compensatory damages. Prevailing employees may also seek litigation expenses including attorney fees and expert witness expenses.

Union testimony to Congress suggested that pipelines would be safer if employees could notify regulators about safety problems *before* accidents occurred, without fear of retribution from their employers.²⁰⁰ The Government Accountability Project sought this protection for employees of Alyeska (the operator of the Trans-Alaska Pipeline).²⁰¹ There was also a suggestion that the management of Olympic Pipe Line

198. By way of illustration, in the recent rulemaking on natural gas pipeline integrity management, RSPA received over 700 comments from 90 different sources. There were only 11 representatives of the public (federal/state/local agencies, public interest groups or individuals). Pipeline Safety: Pipeline Integrity Management in High Consequence Areas (Gas Transmission Pipelines); Final Rule, 68 Fed. Reg. 69,778, 69,782 (Dec. 15, 2003) (to be codified at 49 C.F.R. pt. 192).

199. H.R. 3609 final version, *supra* note 104, § 6.

200. AFL-CIO testimony, *supra* note 136; PACE International Union testimony, *supra* note 133.

201. Press Release, Government Accountability Project, Whistleblower Protection for Pipeline Workers (Nov. 15, 2002) (on file with author).

Co. had disregarded employee safety complaints about a malfunctioning valve that later contributed to the Bellingham accident.²⁰²

Whistleblower protection was included in S.2438 and S.235, which passed the Senate in 2000 and 2001 respectively.²⁰³ While it was not in Chairman Young's first proposal, his committee added it.²⁰⁴ Under the new law, employees now have protection if they speak up about unsafe practices.

In addition to giving employees whistleblower protection, in section 10, Operator Assistance in Investigations, Congress strengthened the "hand" of employees during accident investigations.²⁰⁵ This section requires companies to assist in the investigation of accidents. It amended two parts of the old statute and was added by the Senate.²⁰⁶ The old law merely required that a company permit access to and copying of records.²⁰⁷ It did not require owners or operators of facilities to assist in the investigation of accidents. Under that scheme, employees had no duty to tell OPS anything even if they were so inclined. The new law mandates assistance provided that it does not interfere with constitutional rights (e.g., the Fifth Amendment right against self-incrimination). It also gives the secretary the authority to direct a pipeline operator to relieve an employee of duty if the secretary finds the employee substantially contributed to the incident.²⁰⁸

Of course, employees cannot assist in investigations or serve as whistleblowers if they are not trained in the safe operation and maintenance of pipelines. Therefore, Congress insisted on meaningful training for pipeline employees by including section 13, Pipeline Qualification Programs.²⁰⁹ Once again, Congress narrowed the discretion given to OPS. Instead of a general training mandate, Congress provided specific requirements. Employee qualifications must be tested in some way and that testing may not be limited to on-the-job performance.²¹⁰

202. Ericka Pizzillo, *Olympic Terminal "Nightmarish" Before Blast That Killed Three*, BELLINGHAM HERALD, May 19, 2002 (on file with author).

203. S. 2438, 106th Cong. § 14 (2000) (as reported in the Senate); S. 235, 107th Cong. § 15 (2001).

204. Press Release, U.S. House Comm. on Transp. and Infrastructure, *Bipartisan Pipeline Safety Legislation Overwhelmingly Approved by House Transportation Committee; Bill Approved by 55 to 13 Vote* (May 22, 2002) (on file with author).

205. H.R. 3609 final version, *supra* note 104, § 10.

206. Compare H.R. 3609 as engrossed in the House, *supra* note 141 (which lacks such a section), with H.R. 3609 as engrossed in the Senate, *supra* note 154, § 10.

207. 49 U.S.C. § 60118(a)(3) (2000).

208. H.R. 3609 final version, *supra* note 104, § 10.

209. *Id.* § 13.

210. *Id.*

Testing results must be written.²¹¹ Employers must implement a qualification program within two years of the statute's passage and test all employees who perform "covered tasks"²¹² within 18 months after that. A special pilot program provides for certification of individuals who operate computer-based systems for operating pipelines. The secretary must review all programs within three years. To reduce the agency procrastination, Congress required pipeline operators to comply with the statute requirements whether or not regulations have been written.²¹³

When this section was introduced, the required training was limited to pipeline control room operators.²¹⁴ However, by the time it went through the House, it had been largely rewritten and applied to every employee who performs a "covered task."²¹⁵ The Senate strengthened this section further, permitting waivers from this requirement only if the waiver was consistent with pipeline safety, providing that intrastate pipeline operators should be supervised by the appropriate state regulatory agency, and requiring a report from the secretary about the qualification program one year earlier than the House (four years instead of five).²¹⁶

While these first three industry mandates addressed personnel issues, the next one directly affected pipeline integrity. Section 14, Risk Analysis and Integrity Management Program for Natural Gas Pipelines, mandated inspection of natural gas pipelines if they were in high-population areas.²¹⁷

In imposing integrity management requirements on natural gas pipelines, Congress prescribed timing requirements but left two important loopholes affecting where and how pipeline integrity must be managed. With regard to timing, the secretary must implement integrity management regulations within 12 months of the bill's passage. Pipeline operators must begin assessing the integrity of their pipelines within 18 months and complete that assessment within ten years. Furthermore, the highest risk areas must be assessed first and at least 50 percent of those areas must be assessed within five years. Companies must reassess their

211. *Id.*

212. For natural gas pipelines, a "covered task" is defined in 49 C.F.R. § 192.801(b); for hazardous liquid pipelines a "covered task" is defined in 49 C.F.R. § 195.501(b). Essentially, a "covered task" includes anything required to be done on a pipeline by regulation that is part of operations and maintenance and affects the operation or integrity of the pipeline.

213. H.R. 3609 final version, *supra* note 104, § 13.

214. H.R. 3609 as introduced, *supra* note 128, § 10.

215. H.R. 3609 as engrossed in the House, *supra* note 141, § 10.

216. Compare H.R. 3609 as engrossed in the House, *supra* note 141, § 10 with H.R. 3609 final version, *supra* note 104, § 13.

217. H.R. 3609 final version, *supra* note 104, § 14.

facilities at a minimum of every seven years. Once again, Congress removed any incentive for OPS to drag its feet—if the secretary fails to issue regulations within 12 months, the statute requires companies to comply with the statute without regulatory guidance.²¹⁸

While Congress was prescriptive about *when* the risk of pipelines had to be assessed, Congress gave the secretary discretion to determine *where* and *how*. Surprisingly, Congress did not require that all pipelines be inspected. The statute says that a risk analysis is required for “facilities in areas identified pursuant to subsection (a)(1) [49 U.S.C. § 60109 High-density population areas] and defined in chapter 192 of title 49, . . . including any subsequent modifications.”²¹⁹ Neither section 60109(a) nor chapter 192 of title 49 define “high-density population area.”²²⁰

Adding to the confusion, while the statute uses the term “high-density population area,” members of Congress used the term “high consequence area” as an apparent synonym for “high-density population area.” For example, in referring to where pipeline integrity management programs would apply, the Joint Manager’s Statement refers to “high consequence areas.”²²¹ That statement is silent about “high-density population areas.” Similarly, in RSPA’s recent rulemakings for gas pipeline integrity, the agency has defined the term “high consequence area,” not “high-density population area.”²²² To resolve what Congress intended by the term “high-density population area,” we must resort to the legislative history.

The Joint Manager’s statement for the bill mentions the Carlsbad, New Mexico, accident where 12 people died in a remote area and refers to a recently completed RSPA rulemaking that defined where pipelines must be inspected:

218. *Id.*

219. *Id.* § 14(a).

220. 49 U.S.C.A. § 60109(a)(1)(A) (2001); Pipeline Safety: Pipeline Integrity Management in High Consequence Areas (Gas Transmission Pipelines), Final Rule, 68 Fed. Reg. 69,778, 69,778 (Dec. 15, 2003) (noting that the recently adopted rule for High Consequence Areas is intended to satisfy the statute’s requirement to identify high-density population areas).

221. 148 CONG. REC. S11067, 11068–69 (Nov. 14, 2002) (the Joint Explanatory Statement that is intended as legislative history for the bill describes section 14 as follows: “In this section, each operator of a gas pipeline facility is required to conduct a risk analysis for facilities located in *high consequence areas* and to adopt and implement an integrity management program for each such facility to reduce associated risks.”) (emphasis added).

222. 68 Fed. Reg. 69,778, 69,778 (Dec. 15, 2003) (to be codified at 40 C.F.R. pt. 192) (RSPA stated that this rulemaking is in satisfaction of the Pipeline Safety Improvement Act of 2002).

The Department of Transportation's Research and Special Programs Administration (RSPA) issued a final rule defining "high consequence areas" on August 6, 2002. The managers strongly support RSPA's regulation defining high consequence areas, although recognize that the definition could be subject to alteration by future regulatory action by RSPA....In...July 2002..., RSPA made clear its intent to include in its definition known areas where people gather, such as the Pecos River pipeline crossing near Carlsbad, New Mexico which was commonly used by campers and fishermen and was the location of a pipeline rupture in August 2000 that resulted in 12 fatalities. The managers support is expressed for this new definition of high consequence areas....²²³

This statement suggests that the conferees supported an interpretation of "high-density population area" that included remote areas where people were known to gather.

This interpretation is consistent with the legislative history for prior bill versions. The language as to *where* to inspect pipelines remained virtually the same throughout the three-year debate.²²⁴ Throughout that process, 17 members of Congress justified imposing integrity management requirements by referencing the Carlsbad accident.²²⁵ This suggests that Congress intended "high-density

223. 148 CONG. REC. S11067, 11068-69 (Nov. 14, 2002).

224. Compare S.2438, 106th Cong. § 5 (calling for inspection in areas "identified pursuant to subsection (a)(1) [of § 60109]) with H.R.3609 final version, *supra* note 104, § 14 (calling for inspection in areas "identified pursuant to subsection (a)(1) and defined in chapter 192 of title 49, Code of Federal Regulations, including any subsequent modification...." Note that the earlier law would have also required inspection of hazardous liquid pipelines but that had already been accomplished through rulemaking (65 Fed. Reg. 75405-06 (Dec. 1, 2000)), making such a requirement superfluous. The reference to Chapter 192 added in H.R. 3609 ties the statute to the regulations for natural gas pipelines.

225. 146 CONG. REC. H7627 (Sept. 14, 2000) (remarks of Congressman Tom Udall, D-NM); 146 CONG. REC. E1777 (Oct. 10, 2000) (remarks of Congressman Joe Skeen, R-NM); 146 CONG. REC. H9548 (Oct. 10, 2000) (remarks of Congressman Joe Barton, R-TX); 146 CONG. REC. H9561 (Oct. 10, 2000) (remarks of Congressman Thomas Bliley, R-VA); 146 CONG. REC. H9560 (Oct. 10, 2000) (remarks of Congressman Gene Green, D-TX); 146 CONG. REC. H7627 (Sept. 14, 2000) (remarks of Jay Inslee, D-WA); 146 CONG. REC. S10894 (Oct. 23, 2000) (remarks of Sen. Trent Lott, R-MS); 146 CONG. REC. E1656 (Oct. 3, 2000) (remarks of Congressman James Oberstar, D-MN); 146 CONG. REC. H7841 (Sept. 19, 2000) (remarks of Congressman Bill Pascrell, D-NJ); 146 CONG. REC. H9548 (Oct. 10, 2000) (remarks of Congressman Max Sandlin, D-TX); 147 CONG. REC. S1176 (Feb. 8, 2001) (remarks of Sen. Jeff Bingaman, D-N.M.); 147 CONG. REC. S1176-03 (Feb. 8, 2001) (remarks of Sen. Pete Domenici, R-N.M.); 147 CONG. REC. S1176 (Feb. 8, 2001) (remarks of Sen. Maria Cantwell, D-WA); 147 CONG. REC. S1176 (Feb. 8, 2001) (remarks of Sen. Jon Corzine, D-NJ); 147

population area" to mean places where mass casualties might result from a pipeline rupture, not just urban areas.

The industry argued that it was unreasonable to require pipeline inspection in remote places like where the Carlsbad accident occurred or other infrequently occupied areas such as near rural churches.²²⁶ Industry complained because only about 35 percent of natural gas pipelines would accommodate internal inspection devices;²²⁷ modifying the remaining pipelines to accommodate these devices would be extremely costly.²²⁸

To make it easier to comply with integrity management requirements, in section 14, Congress gave the secretary discretion to identify other methods of inspection that "would provide an equal or greater level of safety." The secretary has already taken advantage of this discretion by permitting pipelines to be reassessed within the seven-year required time frame using a less stringent inspection method than internal inspection or pressure testing.²²⁹ Only time will tell whether this proves to be a fatal flaw.

While Congress gave the secretary some discretion in section 14, Congress returned to a prescriptive approach in section 15, National Pipeline Mapping System.²³⁰ Ten years earlier, in 1992, Congress required DOT to create a national inventory of pipelines.²³¹ By 1999, OPS had completed a standardized mapping system,²³² but RSPA never required companies to submit mapping data.²³³ Not surprisingly, by

CONG. REC. S1176 (Feb. 8, 2001) (remarks of Sen. John Kerry, D-MA); 147 CONG. REC. S1176 (Feb. 8, 2001) (remarks of Sen. Frank Murkowski, R-AK); 147 CONG. REC. S1176 (Feb. 8, 2001) (remarks of Sen. Patty Murray, D-WA).

226. Letter from Terry D. Boss, Senior Vice President, Environment & Safety Operations, Interstate Natural Gas Ass'n. of Am., to Dockets Facility, U.S. Dep't. of Transp. 3 (Mar. 11, 2002) (on file with author) ("Expecting pipeline operators to identify an area, for example such as that located at the Carlsbad site...is unreasonable....Seldom-used areas and structures, such as rural churches or in some instances bingo halls, should not be included in the scope of the proposed rule.").

227. INGAA Pipeline R & D testimony, *supra* note 94.

228. Letter from Terry D. Boss, Senior Vice President, Environment & Safety Operations, Interstate Natural Gas Ass'n of Am., to Dockets Facility, U.S. Dep't. of Transp. 9 (Apr. 30, 2003) (on file with author) (suggesting that the cost of compliance could be as high as \$17.6 billion dollars over the next 20 years).

229. Pipeline Safety: Pipeline Integrity Management in High Consequence Areas (Gas Transmission Pipelines); Final Rule, 68 Fed. Reg. 69,778 69,825 (Dec. 15, 2003) (permitting pipelines to be reassessed on a seven-year schedule using confirmatory direct assessment under 49 C.F.R. § 192.939).

230. H.R. 3609 final version, *supra* note 104, § 15.

231. See DOT IG AUDIT REPORT, *supra* note 115, at 10.

232. *Id.*

233. *Id.*

January 2002, companies had only submitted data for 64 percent of the nation's pipeline mileage, although Congress had mandated a national inventory ten years earlier.²³⁴

The new law requires that all pipeline operators²³⁵ provide geospatial data to the National Pipeline Mapping System within six months of passage of the statute. Operators must identify who has operational control of the pipeline and must keep the information updated.²³⁶

G. Making Industry Compliance Easier

Section 16. Coordination of Environmental Reviews

Section 23. Inspections by Direct Assessment

Along with the many prescriptive mandates of the law, in sections 16 and 23, Congress made it easier for companies to comply with the new requirements. When RSPA promulgated regulations for integrity management of hazardous liquid pipelines,²³⁷ RSPA imposed three repair deadlines (immediate, 60 days, and 180 days) for pipeline defects discovered in High Consequence Areas.²³⁸ These deadlines presented companies with a dilemma, however. Some permits would take longer to get than the deadline allowed for completion of the repair. Section 16 resolves that dilemma by providing expedited environmental review for repair permits.²³⁹

This section was hotly debated. The original proposal by Chairman Young was much broader, including "rehabilitation" of pipelines as well as "repair";²⁴⁰ it permitted the Secretary of Transportation to terminate the jurisdiction of a federal agency if it did not complete its review of the project by the secretary's deadline; it also provided that the secretary could define the purpose and need for the project.²⁴¹ None of those provisions survived in the final version.²⁴²

234. DOT IG testimony, *supra* note 110 (describing progress as "too little, too late").

235. H.R. 3609 final version, *supra* note 104, § 15(a) (excluding distribution and gathering pipelines).

236. *Id.*

237. See Pipeline Integrity Management in High Consequence Areas, 49 C.F.R. § 195.452.

238. *Id.* § (h)(4)(i-iii).

239. H.R. 3609 final version, *supra* note 104, § 16.

240. H.R. 3609 as introduced, *supra* note 128, § 13.

241. *Id.* (proposing §§ 60133(a) ("pipeline repair and rehabilitation projects"), (f) ("Termination of Jurisdiction"), and (h) ("Purpose and Need").

242. Compare H.R. 3609 as introduced, *supra* note 128, § 13 with H.R. 3609 final version, *supra* note 104, § 16.

The final language directs the president to establish an Inter-agency Committee to develop a coordinated environmental review process. Again, Congress recruited new agencies. The Chairman of the Council on Environmental Quality (CEQ) chairs that committee (not the Secretary of Transportation as Chairman Young originally proposed). Virtually all agencies with responsibilities for permitting activities related to pipeline repair are members.²⁴³ The committee is tasked with preparing a compendium of best practices for access, excavation, and restoration of a pipeline repair site and entering into a Memorandum of Understanding (MOU) with those agencies to expedite permitting for companies who need to repair pipelines. That MOU requires the unanimous consent of all agencies on the committee, assuring that environmental protection remains important. This section does not preempt any federal, state, or local environmental law; therefore, it will expedite repairs, not gut environmental protection.²⁴⁴

In section 23, Congress addressed a major concern of the natural gas industry by requiring the secretary to provide rules for Direct Assessment (DA), an alternative to internal inspection with a smart pig or hydrostatic testing.²⁴⁵ OPS does not yet have complete confidence in these methods.²⁴⁶ The liquid pipeline industry will not incorporate this method in its integrity management plans, believing it to be unverifiable.²⁴⁷ Nonetheless, it is permitted by the new statute and will assist natural gas companies who have significant mileage of pipeline that cannot accommodate internal inspection devices.

H. Mandates to Excavators

Section 2. One-Call Notification Programs

Section 3. One-Call Notification of Pipeline Operators

Section 17. Nationwide Toll-Free Number System

One of the main reasons that pipelines are a safe method of transportation is that they are below ground, away from public contact.²⁴⁸ However, out of sight can mean out of mind for excavators

243. H.R. 3609 final version, *supra* note 104, §16(a) (including, in addition to CEQ and DOT, seven other agencies such as the Environmental Protection Agency, the U.S. Fish and Wildlife Service, and the Bureau of Land Management).

244. *Id.* § 16(c)(2).

245. *See* text accompanying *supra* note 95.

246. Teleconference Notes: Making Sense of Pipeline Integrity Legislation and Proposed Regulation" (Feb. 26, 2003), Docket No. RSPA-00-7666-173, at 5 (presentation by Mike Israni).

247. OJ Direct Assessment, *supra* note 95.

248. GAO 2000 REPORT, *supra* note 109, at 9.

who may inadvertently breach a large pipeline carrying natural gas or hazardous liquids.

Excavation damage is arguably the most preventable cause of pipeline accidents through the use of “One-Call” programs requiring excavators to call a central utility-locating system. Congress has regularly addressed One-Call programs in pipeline safety laws.²⁴⁹ Despite those efforts,²⁵⁰ excavation damage continues to endanger communities and was one of several factors that led to the 1999 Bellingham pipeline explosion.²⁵¹

In section 2, Congress directed the secretary to encourage adoption of a cooperative industry excavation study, “Common Ground Study Best Practices,”²⁵² and provided funding for that purpose.²⁵³ Congress also required government pipeline operators, excavators, and contractors to participate in One-Call programs.²⁵⁴ These sections were not controversial—they sailed through without amendment.²⁵⁵

In section 3, Congress enhanced enforcement provisions. In 1992, Congress had imposed criminal penalties for excavators who damage pipelines.²⁵⁶ A subsequent court interpretation, however, made it virtually impossible to prosecute unless the excavator damaged the pipeline intentionally.²⁵⁷ Congress reworded the statute so that the only intent requirement is that the excavator knowingly and willfully engage in excavation. If the excavator subsequently damages the pipeline, even if it is unintentional, he can be prosecuted under this statute provided that he “knows or has reason to know”²⁵⁸ of the damage and fails to

249. H.R. CONF. REP. NO. 105-550, at 526-27 (1998); Common Ground Alliance testimony, *supra* note 137.

250. *See, e.g.*, Pipeline Safety Act of 1979, Pub. L. No. 96-129, § 101(2)(A) i-iii, 93 Stat. 989 (1979); Pipeline Safety Reauthorization Act of 1988, Pub. L. No. 100-561, § 303, 102 Stat. 2805 (1988); Pipeline Safety Act of 1992, Pub. L. No. 102-508, § 304, 106 Stat. 3289 (1992); Transportation Equity Act for the 21st Century, Pub. L. No. 105-178, § 7302, 112 Stat. 107 (1998); Accountable Pipeline Safety and Partnership Act of 1996, 104-304, § 14, 110 Stat. 3793 (1996).

251. NTSB BELLINGHAM REPORT, *supra* note 12, at 72.

252. The Common Ground Alliance is a nonprofit organization dedicated to shared responsibility in the damage prevention of underground facilities. *See* Common Ground Alliance testimony, *supra* note 137.

253. H.R. 3609 final version, *supra* note 104, § 2(c).

254. *Id.* § 2(a).

255. *Compare* H.R. 3609 as introduced, *supra* note 128, § 2, *with* H.R. 3609 final version, *supra* note 104, § 2.

256. Pipeline Safety Act of 1992, Pub. L. No. 102-508, § 304, 106 Stat. 3289 (1992).

257. *See* United States v. Plummer Excavating, Inc., 65 F. Supp. 2d 1013, 1015 (1999).

258. H.R. 3609 final version, *supra* note 104, § 3(c).

notify the pipeline operator. Criminal penalties can be reduced for promptly reporting the damage to the pipeline operator.²⁵⁹

In an effort to further enhance compliance, section 17 directs the secretary to establish a single nationwide three-digit telephone number for One-Call programs. This was requested by Common Ground Alliance in the belief that it would enable better promotion of and compliance with One-Call notification systems.²⁶⁰

I. Studies and Research

Section 11. Population Encroachment and Rights-of-Way

Section 12. Pipeline Integrity, Safety, and Reliability Research and Development

Section 25. Pipeline Bridge Risk Study

Section 26. Study and Report on Natural Gas Pipeline and Storage Facilities in New England

Studies are one way that Congress can acknowledge controversial or intractable problems without taking action on them. These sections serve to highlight some rough spots in pipeline safety.

Section 11 requires a study of population encroachment near pipeline rights-of-way. Presumably, this study will build on a 1988 study by the Transportation Research Board, "Pipelines and Public Safety."²⁶¹ That report studied land use issues with respect to pipeline safety.²⁶² In section 11, Congress directed the secretary to determine effective practices for limiting encroachment on pipeline rights-of-way.

Population encroachment around pipelines is a very difficult issue. Explosions on large natural gas pipelines can kill people hundreds of feet from a pipeline,²⁶³ and spills from liquid pipelines may extend miles away from the pipeline.²⁶⁴ Keeping people out of harms way

259. *Id.* § 3(c)(4).

260. Common Ground Alliance testimony, *supra* note 137.

261. TRANSP. RESEARCH BD., PIPELINES AND PUBLIC SAFETY (1988), available at http://gulliver.trb.org/publications/sr/sr219/SR219_00.pdf (last visited Feb. 24, 2004).

262. Accountable Pipeline Safety and Partnership Act of 1996, Pub. L. No. 104-304 § 16(a), 110 Stat. 3793 (1996).

263. To illustrate, the victims of the Carlsbad pipeline accident were camped 675 feet from where the pipeline ruptured. CARLSBAD NTSB REPORT, *supra* note 34, at 9.

264. See, e.g., *Olympic Pipeline Retrospective*, *supra* note 14, at 4-5 (noting that the gasoline flowed three miles); NAT'L TRANSP. SAFETY BD., PIPELINE ACCIDENT BRIEF EXPLORER PIPELINE MAR. 9, 2000 DCA-00-MP-005 (2001) (noting that it was originally thought that the gasoline was stopped fifteen miles from the rupture location but discovering later that a lake seven miles further downstream showed contamination) [hereinafter NTSB EXPLORER REPORT].

through the usual zoning mechanisms would require building restrictions over large areas and could be very controversial.

Section 12 highlights another challenge. It calls for research and development into improving internal inspection, leak detection, detection of cracks, corrosion and other abnormalities, and pipeline security. Section 12 began as a stand-alone bill, H.R. 3929,²⁶⁵ where a congressional committee made two findings: “(1) Pipelines can become more susceptible to failure with age; (2) Interruptions in service on major pipelines...can have enormous consequences for the economy and security of the United States.”²⁶⁶

Despite the importance of this aging infrastructure, establishing its integrity is an inexact science. Internal inspection devices excel at detecting corrosion but cannot detect prior excavation damage, minute cracks, or other stress related damage.^{267, 268} Many pipelines cannot accommodate an internal inspection device.²⁶⁹ Further research is needed to improve our ability to ascertain the integrity of this critical infrastructure.

Congress required two additional studies in sections 25 and 26,²⁷⁰ a study of pipeline bridges and a study of the natural gas transmission network and natural gas storage facilities in New England. The Senate added these sections.²⁷¹

VI. WOULD THESE CHANGES HAVE PREVENTED PREVIOUS ACCIDENTS?

The new law was born in the ashes of serious pipeline accidents. It seems fair to assess its likely effectiveness by analyzing whether it would have prevented previous accidents.

265. 148 CONG. REC. H5273 (July 23, 2002) (remarks of Rep. Hall); H.R. Rep. No. 107-475, pt. 1, § V.

266. H.R. Rep. No. 107-475, § 2.

267. INGAA Pipeline R & D testimony, *supra* note 94.

268. By way of illustration, several major accidents have occurred in the last few years on pipelines that had been recently internally inspected. *See, e.g.*, NTSB EXPLORER REPORT, *supra* note 264 (noting that the pipeline had been internally inspected in 1997, only three years earlier); NAT'L TRANSP. SAFETY BD., PIPELINE ACCIDENT BRIEF COLONIAL PIPELINE CO., FEB. 9, 1999, DCA99-MP005, at 7 (2001) (noting that the pipeline had been internally inspected that year and one year earlier); NAT'L TRANSP. SAFETY BD., PIPELINE ACCIDENT BRIEF MARATHON ASHLAND PIPE LINE LLC, JAN. 27, 2000, DCA-00-MP-004, at 2 (2001) (noting that the pipeline had been internally inspected three years earlier in 1997).

269. INGAA Pipeline R & D testimony, *supra* note 94.

270. H.R. 3609 final version, *supra* note 104, §§ 25, 26.

271. Compare H.R. 3609 as engrossed in the House, *supra* note 141 (this version does not contain such sections), with H.R. 3609 final version, *supra* note 104, §§ 25, 26.

In combination, stronger excavation protections (sections 2, 3, and 17), training requirements (section 13), whistleblower protection (section 6), implementation of the DOT Inspector General recommendations (section 18), and better attention to NTSB recommendations (section 19) might have prevented the Bellingham accident.²⁷²

Theoretically, the Carlsbad accident²⁷³ might have been prevented by a restructured and better-funded OPS (sections 7, 8, 19, 20, and 22), integrity inspection requirements for gas pipelines (sections 14 and 23), implementation of the DOT Inspector General recommendations (section 18), and attention to NTSB recommendations (section 19). However, according to the just published rule for pipeline integrity management,²⁷⁴ only 22,000 miles of the 300,000 miles of transmission pipelines will be subject to integrity management requirements. This means that 278,000 miles (92.7 percent) of natural gas transmission pipeline will remain just like the Carlsbad pipeline—uninspected and potentially unsafe. That statistic is difficult to understand given the legislative history of the law.²⁷⁵ Unless pipeline companies adopt more extensive inspection practices than required by the new law, it appears that Congress did not do what is needed to prevent another accident like Carlsbad.

VII. WHAT MORE COULD CONGRESS DO?

It has been said that the two things you do not want to watch being made are sausage and legislation. That was true here. The legislative effort started out with a bill named after two of the children killed in the Bellingham accident.²⁷⁶ Eventually industry lobbying weakened the bill so much that the parents of those children withdrew their support along with their children's names. As is often the case, this statute is far from perfect and does not please everyone.

Congress pays attention to pipeline safety only when horrific accidents occur. Certainly, one hopes that bad pipeline accidents are part of our history, not our future. In case that proves not to be true, the

272. NTSB BELLINGHAM REPORT, *supra* note 12, at 71.

273. CARLSBAD NTSB REPORT, *supra* note 34, at 50.

274. Pipeline Safety: Pipeline Integrity Management in High Consequence Areas (Gas Transmission Pipelines), 68 Fed. Reg. 69,815 (Dec. 15, 2003) (to be codified at 49 C.F.R. § 192).

275. 148 CONG. REC. S11067, 11069 (Nov. 14, 2002) (including recreational areas such as where the Carlsbad accident happened).

276. King and Tsiorvas Pipeline Safety Improvement Act of 2000, S. 2438, 106th Cong. (as reported in the Senate, Aug. 25, 2000) (named after Wade King and Stephen Tsiorvas, who were killed in the Bellingham accident). See Pfleger, *supra* note 120.

following are some suggestions of ways that the present law could be changed to make pipelines safer.

(1) *Strict liability for hazardous liquid pipeline spills.* Annually, there are many more spills per mile from liquid pipelines than gas pipelines.²⁷⁷ If Congress implemented strict liability for such spills with a penalty based on the volume spilled, companies would have greater incentive to avoid spills and reduce spill volume.²⁷⁸

(2) *Implement misdemeanor criminal offenses.* Shocking as it may seem, recklessly or negligently operating a pipeline is not a crime. In other environmental statutes (*e.g.*, the Clean Water Act),²⁷⁹ Congress provided both misdemeanor and felony penalties. Given the potential consequences of negligent operation, Congress should provide the same flexibility for unsafe pipeline operation. In fact, the misdemeanor penalties of the Clean Water Act already apply to pipeline spills where they contaminate surface water; so providing the same penalties for all pipeline spills seems reasonable. This would provide a greater incentive to companies to take an appropriate level of care.

(3) *Further strengthen the states.* States should be able to take over pipeline safety laws and their enforcement, similar to the provisions already in place for the Clean Water Act.²⁸⁰ Additionally, Congress should expressly permit states to tax pipelines within their borders on a per mile basis to defray costs of such programs.

(4) *Require public enforcement.* Although OPS publicized its proposed fines for both the Bellingham and Carlsbad accidents,²⁸¹ to this date it has never collected them. If OPS had a public enforcement docket on the web similar to its rulemaking docket,²⁸² the public could monitor enforcement progress and learn the objections raised by alleged violators.

277. According to the OPS 2002 statistics, there were 143 accidents on 161,189 miles of hazardous liquid pipelines and 81 accidents on 307,524 miles of natural gas transmission pipelines. OPS LIQUID TRANSMISSION SUMMARY, *supra* note 8; OPS NATURAL GAS TRANSMISSION SUMMARY, *supra* note 8; OPS LIQUID MILEAGE, *supra* note 23; OPS GAS MILEAGE, *supra* note 24.

278. In the event of spills caused by an excavator, the pipeline company could sue the excavator for the costs of clean up and the fines resulting from the strict liability fine.

279. See Federal Water Pollution Control Act, 33 U.S.C. § 1319(c)(2000).

280. 33 U.S.C. § 1342(b) (2000).

281. Press Release, Dep't of Transp., U.S. Department of Transportation Seeks \$3.05 Million Penalty Against Olympic Pipeline (June 2, 2000), available at <http://ops.dot.gov/bellingham1/PRbellingham.htm> (last visited Feb. 24, 2004); Press Release, Dep't of Transp., U.S. Department of Transportation Seeks \$2.52 Million Penalty Against El Paso Pipeline for Safety Violations in Pipeline Failure (June 21, 2001), available at <http://ops.dot.gov/press/rsp1701.pdf> (last visited Feb. 24, 2004).

282. The docket is available at <http://dms.dot.gov>. (last visited Feb. 24, 2004).

(5) *Narrow federal preemption.* Preemption is generally based on the need for uniform regulation. However, pipeline companies often argue that every pipeline is different and so "one size fits all" is wasteful and ineffective.²⁸³ If that is true, it suggests that blanket federal preemption may be unnecessary. Furthermore, the implicit assumption in special treatment for High Consequence Areas is that pipeline regulation should *not* be uniform. In truth, the identification of High Consequence Areas is indistinguishable from the usual zoning decisions made by local governments. If the federal government merely set operational requirements for High Consequence Areas, local governments could decide whether to impose such protections in any specific area.

(6) *Incentives for replacement of old pipelines.* There is abundant evidence that newer pipelines are safer than old ones.²⁸⁴ The federal government should provide a streamlined permitting process and tax incentives to replace old pipelines where a leak could impact High Consequence Areas.

(7) *Require inspection of all pipelines or require posting of pipelines that are not inspected.* Internal inspection devices were invented in 1965.²⁸⁵ Yet today, more than 65 percent of pipelines still will not accept these devices.²⁸⁶ As a pipeline ages, if there is no requirement to monitor its integrity, that amounts to a willingness to discover integrity failure by a rupture. If the Congress will not require inspection, it should at least require prominent posting of the area as to how much distance one should keep. This would also discourage population encroachment around pipelines.

(8) *Move pipeline safety to the Environmental Protection Agency (EPA).* Congress has given the OPS clearer, more defined statutory requirements. But if pipeline safety does not improve, OPS should be dismantled and the responsibility shifted to the EPA. This undoubtedly is the kind of suggestion that, as one industry member put it, "make[s] some old timers shudder and today's pipeline managers sweat."²⁸⁷ However, since pipeline safety regulation could hardly be worse,²⁸⁸ substantial change would be warranted if it does not improve.

283. Memphis Light, Gas & Water testimony, *supra* note 63.

284. KIEFNER & TRENCH, *supra* note 97, at 37-38.

285. Varco International Tubular Services, available at <http://www.varco.com/investor/annual/V2001AR/varco/tube.html> (last visited Feb. 24, 2004).

286. INGAA Pipeline R & D testimony, *supra* note 94.

287. Joseph C. Caldwell, *Public's Concern Accelerates*, PIPE LINE & GAS INDUSTRY, available at http://www.pipe-line.com/archive_01-09/01-09_safety.html (last visited Feb. 24, 2004).

288. 148 CONG. REC. H5273 (remarks of Rep. Doggett).

(9) *Impose financial responsibility requirements on pipeline corporations.* Large corporations can shield themselves from liability for poor safety practices through certain strategies, such as holding assets that may generate liability (e.g., pipelines) in subsidiaries or as shares of separate corporations.²⁸⁹ As part of this strategy, the parent corporation drastically undercapitalizes its subsidiary.²⁹⁰ In the case of pipelines, this is common.²⁹¹ It is not unusual for a pipeline company to be capitalized by virtually 100% debt, lent by the large corporate shareholders. In fact, this was true of the Olympic Pipeline in Bellingham.²⁹² In a major spill like Bellingham, the undercapitalized pipeline company is forced into bankruptcy if the owners decline to provide further financing.²⁹³ Of course, in the usual bankruptcy, the shareholders lose the company to the debt holders, but in this case, those are the same entities. Bankruptcy presents no meaningful threat to these shareholders but it does allow pipeline companies to avoid financial consequences for inadequate safety measures.²⁹⁴ Congress should impose financial responsibility requirements for pipelines as it already does for liquefied natural gas facilities.²⁹⁵

(10) *Enhance the power of citizens to bring suits.* Congress has limited the circumstances under which a citizen can bring an enforcement action under the pipeline safety laws.²⁹⁶ Unlike other environmental laws,²⁹⁷ Congress has denied citizens the right to sue for failure to develop required regulations.²⁹⁸ Increasing the rights of private citizens to bring such suits would help give the OPS more “backbone.”

289. Lynn M. Lopucki, *The Death of Liability*, 106 YALE L.J. 1, 19 (1996).

290. *Id.* at 22.

291. Olympic Pipe Line Co., Wash. Util. & Transp. Comm’n., Order Granting Interim Relief, In Part, Docket No. TO-011472, at 7-8 (2002) (noting that a capital structure at or approaching 100 percent debt is not unusual in the pipeline industry).

292. *Id.* at 7 (noting that “Olympic has no equity in its capital structure. Its capital structure consists of 100% debt.”).

293. *Id.*; Steve Miletich, *Olympic Pipe Line Seeks Bankruptcy*, SEATTLETIMES.COM, Mar. 28, 2003 (on file with author).

294. Miletich, *supra* note 293.

295. 49 U.S.C. § 60111 (2000) (financial responsibility for liquefied natural gas facilities).

296. Pipeline Safety Act, 49 U.S.C. § 60121 (2002).

297. *Compare* Clean Air Act, 42 U.S.C. § 7604(a) (2000) (granting jurisdiction to district courts to compel agency action unreasonably delayed), *with* Pipeline Safety Act, 49 U.S.C. § 60121 (lacking similar language).

298. *Friends of the Aquifer, Inc. v. Mineta*, 150 F. Supp. 2d 1297, 1299 (2001).

VIII. CONCLUSION

The Pipeline Safety Improvement Act of 2002 was brought on by tragedy. Pipelines can and should be safer. This Act mandates steps that many responsible industry members probably had already taken voluntarily. Educating affected communities, training employees, and inspecting aging hazardous facilities are eminently reasonable measures. Yet, experience has shown that not all companies do what they should to protect people around their pipelines. Some do only what the law requires. Pipeline safety laws must be sufficient to protect the public.

In addition to the safety of communities, Congress had a larger concern—the challenge of siting new pipelines in the face of high profile fatal pipeline accidents. One member even raised the possibility that such accidents would lead to a moratorium on new pipelines.²⁹⁹ Another stated, “We...want...communities to be comfortable that future pipelines...are good things for their region, and that *they are operated as safely as possible*.”³⁰⁰ If siting new pipelines were to grow more difficult, that would reduce the options for addressing the nation’s increasing energy needs. Congress wanted to preserve those options.

For any single pipeline company, the balance between safety and the nation’s need for new pipelines is very different. Faced with the certain cost of mapping, inspecting, and repairing, an individual company might conclude that the work is not worth the expense.

It remains to be seen whether this law will be sufficient. Integrity management requirements will not apply to the vast majority of natural gas pipelines. The willingness of OPS to enforce the new rules remains to be seen. Concerns over terrorism have restricted availability of pipeline information, stifling public involvement. All of these issues are significant challenges. Only time will tell.

299. 146 CONG. REC. H9557 (Oct. 10, 2000) (“We are leading to a moratorium on pipelines until we get our own act together....” (statement of Rep. Pascrell)).

300. 148 CONG. REC. H5273 (July 23, 2002) (statement of Rep. Barton) (emphasis added).