WRITING COMPETITION ENTRY

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The Pipeline Industry Meets Grief Unimaginable: Congress Reacts with The Pipeline Safety Improvement Act of 2002
THE PIPELINE INDUSTRY MEETS

GRIEF UNIMAGINABLE:

Congress Reacts with

The Pipeline Safety Improvement Act of 2002

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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, state governments, community activists and others to strengthen the nation’s pipeline safety laws. The need for change became painfully obvious in the year 2000. Consider these incidents-

- A 50-year-old El Paso Energy natural gas pipeline exploded in Carlsbad, New Mexico killing 12 campers, and allegedly contributed to the severity of the California energy crisis. Gary Johnson, the Governor of New Mexico, referred to the scene as one of "grief unimaginable."

- A gasoline pipeline rupture contaminated a water source for the City of Dallas, pushed gasoline prices to $2.75 a gallon in the Midwest and led EPA to lower air quality standards in Chicago and Milwaukee.

- Another gasoline pipeline rupture in Michigan caused more than 1200 people to evacuate from their homes, several for more than three months.

- A fuel oil pipeline ruptured in Prince George’s County, Maryland, contaminated 40 miles of shoreline of the Patuxent River and nearby creeks, and resulted in clean up costs of $71 million dollars.

These were just four of the eighty natural gas pipeline incidents and 147 hazardous liquid pipeline incidents in the year 2000. Combined, all pipeline incidents in 2000

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3 10-fatality Pipeline Blast Deadliest Yet, HOUSTON CHRONICLE, August 21, 2000, at 4.  
caused a record setting $197 million in property damage.\textsuperscript{11} The number of fatalities for the year (16)\textsuperscript{12} was the highest in 25 years.\textsuperscript{13} It was not a good year.

The above accidents illustrate the two sides of the pipeline safety coin. On the one hand, pipelines are an efficient and safe way to transport energy. A modest sized pipeline transports enough gasoline in a single day to take 750 tanker trucks off our highways.\textsuperscript{14} Pipelines provide 68\% of the nation's gasoline\textsuperscript{15} and virtually all of its natural gas\textsuperscript{16} through 154,733 miles of liquid pipelines\textsuperscript{17} and 298,198 miles of natural gas transmission pipelines.\textsuperscript{18} Meanwhile, pipelines have the lowest number of fatalities annually of any mode of transportation.\textsuperscript{19}

On the other hand, because they transport so much material so efficiently, a single accident has the potential to be vastly more catastrophic than a tanker truck spill. According to the National Transportation Safety Board, 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."\textsuperscript{20}

\textsuperscript{11} OFFICE OF PIPELINE SAFETY, HAZARDOUS LIQUID PIPELINE OPERATORS ACCIDENT SUMMARY STATISTICS BY YEAR, 1/1/1986 – 11/30/2002.
\textsuperscript{12} OFFICE OF PIPELINE SAFETY, supra notes 9 and 10.
\textsuperscript{13} OFFICE OF PIPELINE SAFETY, supra notes 9 and 10.
\textsuperscript{15} NATIONAL ENERGY POLICY DEVELOPMENT GROUP, NATIONAL ENERGY POLICY 7-9 (2001) (hereinafter NATIONAL ENERGY POLICY).
\textsuperscript{17} NATIONAL ENERGY POLICY, supra note 14 at 7-11.
\textsuperscript{18} OFFICE OF PIPELINE SAFETY, LIQUID PIPELINE OPERATOR TOTAL NATIONAL MILEAGE.
\textsuperscript{19} OFFICE OF PIPELINE SAFETY, NATURAL GAS PIPELINE ANNUAL MILEAGE.
\textsuperscript{20} NATIONAL TRANSPORTATION SAFETY BOARD, PROTECTING PUBLIC SAFETY THROUGH EXCAVATION DAMAGE PREVENTION 1 (1997).
\textsuperscript{20} Id.
Today, pipelines are in residential communities, near schoolyards and churches.\textsuperscript{21} That infrastructure is aging—according to the NTSB, many of the hazardous liquid and natural gas pipelines in our nation are thirty to fifty years old.\textsuperscript{22} Periodically verifying their integrity is essential to protecting both the communities around pipelines and the communities who depend upon the materials they bring. Yet, pipelines remained uninspected.

As it studied and reported about accidents, the National Transportation Safety Board (NTSB) grew increasingly frustrated. Recommendations the Board had made more than a decade earlier, remained unaddressed, and preventable accidents continued for the same causes already identified.\textsuperscript{23} NTSB Chairman, Jim Hall, criticized industry efforts to reduce funding for the federal Office of Pipeline Safety and industry’s opposition to stronger regulations. In a speech to the Association of Oil Pipelines, he suggested that such efforts were effective but shortsighted and reminded the attendees that fatal transportation incidents could result in criminal charges.\textsuperscript{24} After the August 2000 Carlsbad incident, Mr. Hall criticized the state of pipeline regulation 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


\textsuperscript{22} Pipeline Safety: Hearing before the National Transportation Safety Board, Nov. 15, 2000 (remarks of Chairman Jim Hall).

\textsuperscript{23} Id.

\textsuperscript{24} Speech of Jim Hall, Chairman, National Transportation Safety Board to the Association of Oil Pipelines, Dec. 1, 1999.
communities in this condition."\textsuperscript{25} NTSB had been recommending that OPS require periodic inspections of pipelines since 1987 to no avail.\textsuperscript{26}

The federal pipeline regulator, the Office of Pipeline Safety (OPS), was widely viewed as lax and ineffective.\textsuperscript{27} Sen. Domenici (R-N.M.) stated, "Unfortunately the Office of Pipeline Safety has had a poor history of regulation and enforcement."\textsuperscript{28} Reps. Dingell (D-MI) and Oberstar (D-MN) criticized the OPS failure to issue regulations requiring pipeline inspections despite a six-year-old Congressional law requiring inspections.\textsuperscript{29} Rep. Pascrell (D-NJ) stated, "There is little or no enforcement of existing regulations."\textsuperscript{30} Lois Epstein, Senior Engineer for Environmental Defense reported that OPS had not sent one single case to the Department of Justice for prosecution of its standards in more than a decade.\textsuperscript{31} As of the year 2001, OPS didn't even have a map of

\textsuperscript{25} Press Release, Chairman Jim Hall, National Transportation Safety Board, Statement on Carlsbad, New Mexico Pipeline Accident (Aug. 24, 2000) (on file with author).
\textsuperscript{27} Speech of Jim Hall, Chairman, NTSB, supra at note 24 ("There is nowhere today the sense that Office of Pipeline Safety (OPS) is in charge...or that its regulations, its inspections, its assets, its staffing and its spirit, are adequate to the task.").
\textsuperscript{29} "Dear Colleague" letter from Reps. James Oberstar (Minn.) and John D. Dingell (Mich.) dated September 18, 2000 available at: http://www.pipelineleaks.com/AllInks/media/HousePlasSepr182000.htm.
the pipelines it regulated. The Office of Pipeline Safety was the butt of editorial cartoons.33

States wanted more power over pipelines and many thought they would do better than OPS. Washington state representatives asked Congress to protect state (rather than federal) interstate pipeline inspections.34 An activist questioned the need for federal preemption.35 A city attorney from Fredericksburg, Virginia testified that his city had lost its public water supply to a pipeline failure not once, but twice.36 A representative of state government inspectors from Minnesota complained to Congress that the Department of Transportation was summarily limiting states' roles in inspecting pipelines despite statutory language granting states such authority.37 The National Association of Pipeline

32 Mike Madden, Bush: Speed Pipeline Reviews, BELLINGHAM HERALD, Jan. 28, 2001; 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 of Mark R. Dayton, Deputy Assistant Inspector General, U.S. Dep’t of Transp., on the topic of OPS’ program for pipeline operators to voluntarily submit mapping information, “This progress is too little, too late. OPS should move forward on a rulemaking for mandatory reporting of these data immediately.”)
33 See, e.g., Ben Sargeant, AUSTIN-AMERICAN STATESMAN, Jul. 2001 (On the appropriate voice mail message for a caller to receive when calling the Office of Pipeline Safety to notify them of an accident, “You have reached the U.S. Office of Pipeline Safety... for ‘Tsk, Tsk,’ Press 1, for ‘Tut, Tut,’ Press 2, for ‘Wow! Tough Break!’ Press 3, for ‘Good Luck—You’re Going to Need It!’ Press 4.”) (on file with author).
34 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 Moser, 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.”)
35 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 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.”).
37 Hearings Before Senate Comm. on Commerce, Sci. and Transp., (May 4, 2000) (testimony of Charles R. Kenow, Vice-Chairman of National Association of Pipeline Safety, “...recent 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.”)
Safety Representatives suggested that state inspectors would do more frequent and thorough pipeline inspections than OPS could do with its limited resources. The General Accounting Office (GAO) agreed with them. The dissatisfaction with OPS was apparently deep and wide.

Community activists formed in the cauldron of the Bellingham pipeline explosion, testified to Congress. Marlene Robinson, whose son, Liam Wood, suffocated on gasoline fumes while fishing in Whatcom Creek, 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.” She complained that control room operators lacked training, and that OPS required no inspections and was unduly influenced by the interests of industry.

In contrast, the industry’s testimony sometimes seemed oddly oblivious to real world events. The Interstate Natural Gas Association of America (INGAA) complained that requiring inspections of natural gas pipelines would interrupt natural gas service and be costly to consumers. However, unsafe pipelines could cause interruptions of service,

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38 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 National Association 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 assistance than have normally been performed due to lack of OPS resources.”)


42 Id.

If undiscovered corrosion were occurring on the nation’s aging pipelines, not inspecting them would not protect reliability of service—it would invite interruptions due to unanticipated ruptures.

A natural gas utility representative testified that the industry opposed prescriptive legislative approaches, complaining that one size fits all wouldn’t fit pipelines. But less than three weeks afterwards, in the criminal prosecution pertaining to the fatal Bellingham pipeline accident, the defendant pipeline companies moved to dismiss their indictment on the basis of vagueness. They complained that existing OPS regulations implementing the Pipeline Safety Act were so vague that, “...even industry experts cannot say what is required by these regulations.” If Congress meant to give the wishy-washy Office of Pipeline Safety meaningful direction, it’s difficult to see how it could pass anything but prescriptive legislation.

In the end, Congress passed a tougher law with many prescriptive standards. It was not enough to satisfy one parent whose child died in the Bellingham accident, however, the statute does impose many new requirements on pipeline operators.

The new Pipeline Safety Improvement Act of 2002 has been three years in the making. Understanding the statute requires:

1) A basic understanding of pipelines;
2) An appreciation of the safety challenges posed by recent incidents;

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48 Ellyn Ferguson, Politicians Hail New Pipeline Bill; Father Critical, BELLINGHAM HERALD, Nov. 16, 2002.
3) An overview of the new requirements, and a comparison with the old statute; and,

4) An understanding of how the new requirements might have prevented or mitigated previous accidents.

With this foundation, we can then ask, what more could/should Congress do? Pipeline safety is important because, without public confidence in pipelines, communities will oppose the siting of new pipelines. As our nation grows, managing its energy needs requires new pipelines. As such, an understanding of these facilities and how Congress regulates them contributes to our appreciation of their costs and benefits.

THE BASICS OF PIPELINE OPERATION

Background

Pipelines are steel pipes that transport liquid and gas materials from the place where they are produced to where they are needed. Most oil and gas pipelines in the United States are constructed of longitudinally welded pipe or seamless pipe (smaller sizes). The pipes are coated to prevent corrosion.

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. These materials begin their pipeline journey from tankers at coastal ports, oil or gas wells, or refineries.

49 JOHN L. KENNEDY, OIL AND GAS PIPELINE FUNDAMENTALS 49 (PennWell Publ'g.) (2nd ed. 1993).
50 Id. at 1.
51 Id. at 51.
52 Id. at 54.
53 Id. at 60.
54 Id. at 28-43.
55 Id. at 1-5.
Pipelines deliver these materials across thousands of miles to where they are needed.\textsuperscript{56}

The final destination may be a home (natural gas),\textsuperscript{57} a refined products terminal that supplies local gas stations (refined products),\textsuperscript{58} a petrochemical factory (natural gas liquids),\textsuperscript{59} or an oil refinery (crude oil).\textsuperscript{60}

A pipeline network is controlled by a supervisory control and data acquisition system (SCADA).\textsuperscript{61} This consists of computer hardware and software that can regulate pressure and flow, start and stop pumps and compressors, and monitor the functioning of the pipeline.\textsuperscript{62} Remote units measure operating conditions and transmit the data to a central control system.\textsuperscript{63} The centrally located control system is staffed 24 hours a day, 365 days a year.\textsuperscript{64}

**Hazardous Liquid versus Natural Gas Pipelines**

Natural gas pipelines are regulated differently than liquid pipelines.\textsuperscript{65} First, the pipelines that carry natural gas in large quantity over long distances (transmission pipelines) are distinguished from smaller local delivery pipelines (distribution pipelines).\textsuperscript{66} In addition, natural gas pipelines are divided further into class locations (Class 1, 2, 3 or 4 with increasing human proximity).\textsuperscript{67} Safety measures differ in these areas. For example, if, when a pipeline is built, it is in a Class 2 area but more homes are

\textsuperscript{56} Id. at 1.
\textsuperscript{57} Id. at 1.
\textsuperscript{58} Id. at 37.
\textsuperscript{59} Id. at 37.
\textsuperscript{60} Id. at 6.
\textsuperscript{61} Id. at 215.
\textsuperscript{62} Id.
\textsuperscript{63} Id.
\textsuperscript{65} See, e.g., Transportation of natural gas 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).
\textsuperscript{67} Class locations, 49 C.F.R. 192.5 (2002).
built near the pipeline (changing the classification to Class 3), the company may be
required to operate the pipeline at a lower pressure.68

Historically, liquid pipelines had rules that were less specific. There were no
special regulations for populated areas. However, in December 2000, the Department of
Transportation (DOT) Research and Special Programs Administration (RSPA)
promulgated new regulations that, for the first time, required liquid pipeline companies to
identify where their pipelines could affect "high consequence areas" and mandated
inspections in those areas.69 Because spilled liquids behave differently than natural gas,
high consequence areas include not only areas of high population but also commercial
waterways and areas that are "unusually sensitive."70

Monitoring the Integrity of Pipelines

Although control room SCADA operators monitor pipelines, by the time the
operator has notice of a problem due to a drop in pressure or change in flow rate, a
release has probably already occurred. Because pipeline accidents can have severe
consequences, being able to prevent accidents is critically important. Prevention requires
periodically testing the integrity of the pipeline.

Integrity testing begins when a pipeline is first constructed. Welds are X-rayed71
and before the pipeline is filled with the material it will transport, it is "hydrotested." A
hydrotest entails filling a segment of the pipeline with water and pressurizing it to
observe that it will hold the pressure for a certain period.72 For example, hazardous

68 Change in class location: Confirmation or revision of maximum allowable operating pressure, 49 C.F.R.
§ 192.611 (2002).
70 Id. §§ (1) and (4); 49 C.F.R. § 195.6 (2002) (these include drinking water sources and environmentally
sensitive areas).
71 JOHN L. KENNEDY, OIL AND GAS PIPELINE FUNDAMENTALS 157 (PennWell Publ’g ) (2nd ed. 1993).
72 Id. at 162.
liquid pipelines must be tested for four hours at 125 percent of the maximum operating pressure. Because the hydrotest is done at a higher pressure than the pressure at which the pipeline will be operated, this assures a level of strength greater than necessary to prevent the pipeline from rupturing during normal operation. Hydrotesting is required for new pipeline construction.

Hydrotesting has the advantage that it gives positive proof that the pipeline will hold a certain pressure without leaking or rupturing. However, it has the disadvantage that it interrupts service, if used on an operating pipeline. It also introduces water into the pipeline, which, if not completely removed, may cause internal corrosion.

Another way of monitoring integrity is with internal in-line inspection devices, also known as “smart pigs.” “Smart pigs” are internal inspection instruments that can detect some (not all) defects in pipelines.

It is not enough to internally inspect a pipeline with a smart pig to prevent accidents. An engineer must correctly interpret the data from the smart pig. If the pipeline has had prior internal inspections, a comparison of the new inspection report with the old one can be critical in correctly interpreting the data. Changes in the data from one inspection to the next are likely to reflect changes in the pipe. The skill of the engineer interpreting the smart pig data is a key component to an effective internal inspection program.

76 Id.
77 NATIONAL TRANSPORTATION SAFETY BOARD, PIPELINE SAFETY HEARING (Nov. 15, 2000) (remarks of Chairman Jim Hall).
Because many pipelines cannot accommodate a smart pig and hydrotesting is costly and interrupts service, other methods are used to monitor pipeline integrity. These are broadly known as “direct assessment.” Direct assessment includes several different technologies used to monitor pipeline integrity including visual inspection, ultrasonic testing and X-ray examinations. This method has the disadvantage of all sampling methods—it does not inspect the entire pipeline, only the areas chosen for sampling. If there is an area that has a corrosion problem but it is not among the areas sampled, that corrosion will go undetected.

Causes of Pipeline Accidents

The most frequent causes of pipeline accidents are corrosion (about 23%) and excavation damage (about 15%). Less frequent causes are weld defects (about 4-5%) and operator error (about 4%).

Corrosion may be internal (coming from within the pipeline) or external. The corrosiveness of the material transported by the pipeline is the greatest risk factor. To prevent external corrosion, pipelines are coated to protect the pipe wall and cathodic protection is used. Cathodic protection applies electric current to the pipeline to prevent corrosion.

81 Id.
82 Id.
83 Id.
85 Id. at 80.
86 Id.
Excavation damage accounts for 12-17% of pipeline incidents.\textsuperscript{87} To reduce this problem, laws require that excavators notify a “One Call” system 48 hours before excavating.

Seam weld failure accounts for only a small percentage (4-5%) of pipeline accidents.\textsuperscript{88} This type of failure occurs almost exclusively on pipelines constructed before 1970 using a now abandoned welding technique.\textsuperscript{89} Operator error and incorrect operation also account for about 4-5% of accidents.\textsuperscript{90}

Consequences from Different Accident Causes

Different accident causes can result in dramatically different consequences. By way of illustration, on hazardous liquid pipelines in 2002, there were twice as many seal failures (12) as weld failures (6).\textsuperscript{91} Nonetheless, the less common weld failures accounted for 33% of all damages from hazardous liquid pipelines although they only accounted for 4% of the number of accidents.\textsuperscript{92} Meanwhile, seal failures accounted for 8.6% of accidents but only 3.8% of the damages.\textsuperscript{93} This is because a seal failure is likely to be a smaller, more easily contained leak. A weld failure can result in the entire 50-foot longitudinal seam opening and material being pumped out until the control room figures out what has happened and shuts down the pipeline. One of the more memorable fatal pipeline accidents resulted from a seam weld failure in Mounds View, Minnesota.\textsuperscript{94}

\textsuperscript{87} \textit{Supra}, note 80.
\textsuperscript{88} \textit{Id.} (for hazardous liquid pipelines, seam weld failure accounted for 4.31% of incidents but 33.68% of damages).
\textsuperscript{89} JOHN F. KIEFFNER & CHERYL J. TRENCH, OIL PIPELINE CHARACTERISTICS AND RISK FACTORS: ILLUSTRATIONS FROM THE DECADE OF CONSTRUCTION 34 (2001).
\textsuperscript{90} \textit{Supra}, note 80.
\textsuperscript{91} \textit{Id.}
\textsuperscript{92} \textit{Id.}
\textsuperscript{93} \textit{Id.}
\textsuperscript{94} OFFICE OF PIPELINE SAFETY, U.S. DEP’T OF TRANSP., ELECTRIC RESISTANCE WELD PIPE FAILURES ON HAZARDOUS LIQUID AND GAS TRANSMISSION PIPELINES 1 (1989).
Whether the pipeline that ruptures is a liquid or natural gas pipeline will dramatically affect the area impacted and the likely consequences. Remember that there are only about half as many miles of liquid pipelines as natural gas transmission pipelines. Yet, liquid pipelines have had 2.3 times as many accidents as natural gas transmission pipelines over the last fifteen years. On a per mile basis, liquid pipelines have more fatalities and injuries. Liquid pipelines have caused almost 2.5 times as much property damage as natural gas transmission pipelines although they account for only one-third of the mileage. Part of the reason for this drastic difference is that liquids can flow long distances once they escape from the pipeline and impact large areas whereas natural gas pipeline ruptures generally cause localized, though severe, damages.

Because of these differences, no discussion of pipeline safety is complete if it speaks only of the frequency of incidents. An effort to make pipelines safer must focus not only on reducing the overall numbers of accidents but especially on reducing those accident causes that have the most severe consequences.

95 See supra, notes 17 and 18.
98 Id.
99 See, e.g., NTSB Chalk Point Report, supra note 8 (noting that the oil traveled downstream 17 miles and impacted 40 miles of shoreline); National Transportation Safety Board, Pipeline Rupture and Subsequent Fire in Bellingham, Washington June 10, 1999 10,11 (2002) (noting that the gasoline pool fires extended for a mile and a half from the rupture, burned for four days and burned twenty-five acres) (hereinafter NTSB Bellingham Report).
THE HISTORY OF THE PIPELINE SAFETY LAWS

The first statute regulating pipeline safety was the Natural Gas Pipeline Safety Act of 1968.\(^\text{101}\) Congress added liquid pipelines to the statute in the Pipeline Safety Act of 1979.\(^\text{102}\) This was followed by the Pipeline Safety Reauthorization Act of 1988,\(^\text{103}\) the Pipeline Safety Act of 1992,\(^\text{104}\) the Accountable Pipeline Safety and Partnership Act of 1996,\(^\text{105}\) and now the Pipeline Safety Improvement Act of 2002.\(^\text{106}\)

Who's Who in Pipeline Safety

Congress created the Office of Pipeline Safety (OPS) in 1968\(^\text{107}\) to oversee and implement pipeline safety regulations. OPS is an agency in the Department of Transportation (DOT) and is under the Research and Special Programs Administration (RSPA).\(^\text{108}\) OPS inspects interstate pipelines while states are responsible for intrastate pipelines.\(^\text{109}\)

Historically, OPS has had a poor record as a regulator almost since inception. In 1978, the General Accounting Office (GAO) reported that OPS had weak enforcement, inaccurate records, and ineffective rules.\(^\text{110}\) Twenty-two years later in 2000, the GAO

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\(^\text{108}\) Id.
\(^\text{110}\) Id.
produced another report that came to virtually the same conclusions. Testimony for the Pipeline Safety Act of 2002 brought Congress many of the same complaints.

One of the agencies complaining was the National Transportation Safety Board (NTSB), which investigates serious pipeline accidents. The NTSB routinely makes recommendations to public or private entities about safety measures that could have prevented accidents it investigates. While those recommendations have no force of law, they are generally taken seriously. OPS has the lowest implementation rate of NTSB recommendations (69%) of any agency in the Department of Transportation. Even the pipeline industry as a whole has a higher rate of implementation of NTSB recommendations (87%) than OPS.

RECENT ACCIDENTS THAT SPURRED CONGRESS TO ACT

Since Congress last addressed pipeline safety in 1996, two particularly dramatic accidents have occurred, one on a hazardous liquid pipeline and one on a natural gas

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113 Reauthorization of the National Transportation Safety Board: Hearings Before the Senate Comm. on Commerce, Sci., and Transp. (June 25, 2002) (testimony of Marion C. Blakey, Chairman, Nat. Transp. Safety Bd.) (Serious pipeline accidents are those that cause a fatality, substantial property damage or significant injury to the environment.)
116 Id.
pipeline. These accidents provide a helpful framework in understanding the measures Congress subsequently imposed in the Pipeline Safety Improvement Act of 2002.

_The Bellingham, Washington Pipeline Accident_\(^{117}\)

The impetus for stronger legislation began in 1999 on a sunny June afternoon in Bellingham, Washington, a city of 61,240 people.\(^{118}\) The Olympic pipeline, allegedly operated by Equilon Pipeline Company LLC, (a partnership of Texaco and Shell),\(^{119}\) ruptured and poured 237,000 gallons of gasoline into Whatcom Falls Park.\(^{120}\) The gasoline exploded, sending a mile and a half fireball roaring through Bellingham and generating a mushroom cloud one half miles long and six miles high.\(^{121}\) Two ten-year-old boys and an eighteen-year-old young man were killed.\(^{122}\) The gasoline flowed three miles through downtown Bellingham and into Bellingham Bay.\(^{123}\)

In addition to the deaths, a single-family residence and the Bellingham water treatment plant were severely damaged.\(^{124}\) Testing and repairs put the pipeline out of service for eighteen months.\(^{125}\) The loss of productivity and lost profits led an upstream ARCO refinery to seek $563,603,764 just in damages from the loss of use of its refinery.\(^{126}\) At least one long-standing employee of the Bellingham Fire Department resigned his position as a paramedic rather than face another such experience.\(^{127}\)

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117 NTSB BELLINGHAM REPORT, supra at note 99.
119 NTSB BELLINGHAM REPORT, supra at note 99 at 1.
120 Id.
121 Skye Thompson, Olympic Pipeline Explosion: A Retrospective (One Year Later), THE PLANET, SPRING/SUMMER 4-5 (2000) (hereinafter, Olympic Pipeline Retrospective).
122 NTSB BELLINGHAM REPORT, supra at note 99 at 1.
123 Olympic Pipeline Retrospective, supra note 121 at 4-5.
124 NTSB BELLINGHAM REPORT, supra at note 99.
126 ARCO's Answer, Counterclaims and Cross-Claim at 8, Olympic Pipe Line Co. v. Equilon Pipeline Co. LLC, No. C01-1310.
127 Olympic Pipeline Retrospective, supra at note 121, at 33.
When NTSB reported the results of its investigation, Board Member John Goglia summed it up this way: "If it could be done wrong, it certainly appears (the pipeline operators) did it wrongly." The NTSB Chairwoman said she was struck by the "litany of failures all around." Some of the causes of the accident that the NTSB identified included: (1) damage done to the pipeline by a contractor constructing a water treatment plant and ineffective inspection of that construction work by Olympic; (2) inaccurate evaluation of internal inspection done by Olympic; (3) Olympic's failure to test a safety valve installed at a newly constructed refined products terminal; (4) Olympic's failure to investigate and correct unexplained shutdowns; and (5) Olympic's practice of performing computer database work while that computer was operating the pipeline.

OPS also investigated the accident independently of NTSB. In addition to conclusions similar to those of the NTSB, OPS alleged that the company had nothing more than on the job training for its pipeline control room operators.

The company was indicted by a federal grand jury. Olympic and two of its employees pled guilty to a felony under the Pipeline Safety Act (failure to train pipeline control room employees). The manager and control room operator received prison sentences. One employee pled guilty to a misdemeanor violation of the Clean Water Act (for turning the pipeline back on after safety mechanisms shut it down upon

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128 Matthew Daly, Fatal Blast Blamed on Olympic, Excavator, KING COUNTY J., Oct. 9, 2002 (on file with author).
129 Katherine Pfleger, NTSB Faults Pipeline Firm in Deadly 1999 Explosion, SEATTLE TIMES, Oct. 9, 2002 (on file with author).
130 NTSB BELLINGHAM REPORT, supra at note 99 at 72.
131 Notice of Probable Violation and Civil Penalty, Office of Pipeline Safety CPF No. 5-2000-5013, June 2, 2000, to Equilon Pipeline Co. and Olympic Pipeline Co. p. 5.
133 Plea Agreement at 1, U.S. v. Frank Hopf, Jr. (No. CR01-338R); Plea Agreement at 1-2, U.S. v. Ronald Dean Brentson (No. CR01-338R); Plea Agreement at 2, U.S. v. Olympic Pipe Line Co. (No. CR01-338R).
sensing the loss of pressure).\textsuperscript{135} Equilon pled nolo contendere to a felony violation for failure to train its employees.\textsuperscript{136} The two companies agreed to criminal and civil penalties and safety improvements costing $112 million.\textsuperscript{137} (Earlier in a civil lawsuit, the companies had agreed to pay $75 million to settle wrongful-death suits.)\textsuperscript{138} These prosecutions were the only time in the thirty-year history of pipeline safety laws that the criminal sanctions were imposed.\textsuperscript{139}

\textit{The Carlsbad, New Mexico Pipeline Accident}

In the summer of 2000, one year after the Bellingham accident, activists from that community were actively lobbying Congress for stronger legislation. By April, three different bills were under consideration.\textsuperscript{140} Unfortunately, this would all prove too late to save twelve campers peacefully fishing near the Pecos River near Carlsbad, New Mexico the morning of August 19, 2000.

A 50-year-old El Paso natural gas pipeline ruptured nearby.\textsuperscript{141} The campers were 675 feet away\textsuperscript{142} with a small campfire and a Coleman lantern.\textsuperscript{143} The ensuing explosion set off seismographs fourteen miles away.\textsuperscript{144} The resulting flame was 500 feet high.\textsuperscript{145}

\textsuperscript{135} Plea Agreement at 1, U.S. v. Kevin Scott Dyvig (No. CR01-338R).
\textsuperscript{136} Plea Agreement at 2, U.S. v. Equilon Pipeline Co., LLC (No. CR01-338).
\textsuperscript{138} Id.
\textsuperscript{141} NATIONAL TRANSPORTATION SAFETY BOARD, \textit{NATURAL GAS PIPELINE RUPTURE AND FIRE NEAR CARLSBAD, NEW MEXICO AUGUST 19, 2000 16} (2003) (hereinafter \textit{CARLSBAD NTSB REPORT}).
\textsuperscript{142} Id. at 9.
\textsuperscript{143} Ten Dead, Two Cling to Life, ROSWELL DAILY RECORD NEWS, Aug. 21, 2000.
\textsuperscript{145} CARLSBAD NTSB REPORT, supra note141, at 12.
and burned for almost an hour.\textsuperscript{146} During that time, rescuers were kept a half-mile away because they were afraid to get closer for fear the paint would be burned from their trucks.\textsuperscript{147} Six campers were killed instantly, six died later of their injuries.\textsuperscript{148} The ensuing NTSB investigation found that the 50-year-old pipeline had internal corrosion that had gone undetected.\textsuperscript{149} The NTSB concluded that El Paso's corrosion control program "failed to prevent, detect or control internal corrosion within the company's pipeline."\textsuperscript{150}

The NTSB also criticized the Office of Pipeline Safety (OPS). NTSB pointed out that OPS had conducted 18 safety inspections at El Paso from June 1990 to August 1998 and in every case, OPS had concluded that El Paso's internal corrosion program was satisfactory.\textsuperscript{151} After 1998, OPS launched a "new" inspection program. In the eight inspections between July 1999 to September 2000, compliance with internal corrosion regulations was again "satisfactory."\textsuperscript{152} Nonetheless, after the accident, an OPS inspection found numerous faults including problems with internal corrosion control.\textsuperscript{153} The company is presently being investigated by a federal grand jury.\textsuperscript{154}

Like Bellingham, there were consequences beyond the twelve deaths. Nearby steel suspension bridges were extensively damaged.\textsuperscript{155} Three vehicles were destroyed.\textsuperscript{156}

\begin{footnotes}
\footnote{146} Id., at 1.
\footnote{147} Id.
\footnote{149} \textsc{Carlsbad NTSB Report}, supra note 141, at 50.
\footnote{150} Id.
\footnote{151} Id., at 28.
\footnote{152} Id.
\footnote{155} \textsc{Carlsbad NTSB Report}, supra note 141, at 1.
\footnote{156} Id.
\end{footnotes}
The pipeline was out of service for almost a year.\(^\text{157}\) That service interruption allegedly contributed to the severity of the California energy crisis.\(^\text{158}\)

These two accidents provide themes that help provide a framework for understanding Congressional action in the new pipeline safety law. Although pipeline accidents are infrequent, their devastating consequences have damaged public confidence\(^\text{159}\) and made siting of new pipelines much more difficult.\(^\text{160}\)

**THE PIPELINE SAFETY ACT OF 2002**

**Legislative History**

By the fall of 2000, the Senate had voted on a bill (S.2438) and referred it to the House.\(^\text{161}\) Many of the sections of what would become the final 2002 bill were present but the bill was much weaker and had fewer mandates. 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 to pass it.\(^\text{162}\) Pipeline safety advocates opposed the bill. The parents of the children killed in Bellingham criticized the bill's excessive faith in the Office of Pipeline Safety saying, "If you tell an agency to do something twenty-two times and they ignore you, by what logic do you think they will pay attention the twenty-third time?"\(^\text{163}\)

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\(^{159}\) OFFICE OF PIPELINE SAFETY, KEY POINTS ON GAS INTEGRITY MANAGEMENT RULE, available at: http://ops.dot.gov/whatsnew/GASIMPbriefstb.htm (June 21, 2002).


\(^{161}\) The King and Tsiorvas Pipeline Safety Act of 2000, S. 2438, 106\(^{th}\) Cong. (2000) (this bill was named after the two ten-year-olds that died in the Bellingham explosion).

\(^{162}\) 146 Cong. Rec. H9548, 9557 (Oct. 10, 2000) (Rep. Barton's remarks, "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.")

\(^{163}\) Marlene Robinson and Bruce Brabec, Frank and Mary King, Katherine Dalen and Edwin Williams, *Pipeline Safety: Don't Sacrifice the Good for the Status Quo*, SEATTLE TIMES, Oct. 6, 2000 (on file with author).
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." Congressman Pascrell of New Jersey said, "...the people who do the inspections [of pipelines] do not even have to be trained. Now, who are we kidding?" Although 59% of the House voted in favor of the bill that the Senate had approved, it failed to get the necessary two-thirds majority and was rejected.166

One of the representatives that voted in favor of S.2438 was Don Young of Alaska, the powerful Chairman of the House Transportation and Infrastructure Committee. He was not a fan of a prescriptive new statute for pipeline safety. In June 2001, Young stated that he thought DOT and OPS had sufficient statutory authority without significant statutory changes.168 Two events associated with security and pipelines may have contributed to his change of heart six months later.

Naturally, the events of September 11, 2001, made everyone think more about security. To add to those concerns, in October 2001, a lone drunk gunman in Alaska fired a rifle at the Trans-Alaska pipeline and started a leak, shutting down one-sixth of U.S. oil production and causing one of the worst spills in the history of that pipeline.169 Coming on the heels of September 11th, this demonstrated the vulnerability of a major pipeline to a security breach. By December 2001, Young had introduced his own bill, 

165 Id. (Remarks of Mr. Pascrell).
166 146 Cong. Rec. H9573 (Oct. 10, 2000) (the roll call was yeas 232, nays 158, not voting 42).
167 Id.
highlighting security as well as pipeline safety. Signaling a tough fight for pipeline safety advocates, he explained that his new bill would provide a "less prescriptive approach" to pipeline safety. The House referred the bill to Young's Committee on Transportation and Infrastructure and Rep. Tauzin's (R-La) Committee on Energy and Commerce.

In February 2002, the Subcommittee on Highways and Transit of Chairman Young's Committee on Transportation and Infrastructure held the first hearings in the House and received testimony from pipeline safety advocates (including the mother of the 18-year-old killed in Bellingham), industry representatives, the Office of the DOT Inspector General, and a pipeline employee union representative.

In March, the Subcommittee on Energy and Air Quality of Rep. Tauzin's Committee on Energy and Commerce held its hearings receiving testimony from the NTSB, industry representatives, a union representative, various nonprofits with

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171 Press Release for The Pipeline Infrastructure Protection To Enhance Security and Safety Act ("This bill generally differs from other approaches in that it is less prescriptive...") (on file with author)
173 Hearings: Before the Subcomm. on Transp. and Infrastructure of the House Comm. on Highways and Transit (Feb. 13, 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.)
interest in preventing pipeline spills and the Administrator of the DOT Research and Special Programs Administration that oversees the Office of Pipeline Safety. Much to Rep. Young’s chagrin, Rep. Tauzin’s committee passed its own bill as a substitute.

The two powerful House committees finally negotiated a compromise to bring the measure to a vote on July 23, 2002 where it passed, almost unanimously. The bill headed for the Senate where the Senate version of the pipeline safety bill was part of the massive Energy Policy Act of 2002.

Ultimately, complicated 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. The Chairmen and Ranking Members of the House Committees accepted amendments from the Chairmen and Ranking Member of the Senate Commerce Committee. The Senate passed the amended version by unanimous consent on
November 13, 2002. The House did the same the next day. The President signed it into law on December 17, 2002.

THE PIPELINE SAFETY IMPROVEMENT ACT OF 2002—SECTION BY SECTION

The new law contains twenty-six Sections that cover the gamut of issues related to pipeline safety. The following provides some of the highlights of the new law and, where applicable, shows how the new law might have affected past accidents.

Section 1. Short Title

Despite its introduction in the House as the “Pipeline Infrastructure Protection to Enhance Security and Safety Act,” by the time both Houses had completed their work, all of the Sections expressly addressing security had been deleted and the final bill was no longer about security per se. The short title of the final bill is “Pipeline Safety Improvement Act of 2002.”

Section 2. One-Call Notification Programs

One of the main reasons that pipelines are a safe means of transportation is that they are below ground, away from public contact. On the other hand, out of sight can mean out of mind for excavators who may inadvertently breach a large pipeline carrying gas.

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190 Pipeline Infrastructure Protection to Enhance Security and Safety Act, H.R. 3609, 107th Cong. (as introduced in the House).
191 Compare Pipeline Infrastructure Protection to Enhance Security and Safety Act, H.R. 3609, 107th Cong. (as introduced in the House) with Pipeline Safety Improvement Act of 2002, H.R. 3609, 107th Cong. (enrolled bill) (note that 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.”)
natural gas or hazardous liquids. This is known as “outside force damage,” and is a leading cause of pipeline accidents.

Outside force may also be one of the most preventable causes of pipeline incidents via programs requiring excavators to call a central locating system known as a “One-Call” System before beginning work. Congress has regularly addressed One-Call Notification Programs in pipeline safety laws.

Despite previous legislative measures, excavation damage continues to endanger communities. Such damage was one of several factors that led to the 1999 Bellingham pipeline explosion.

In the Pipeline Safety Improvement Act of 2002, Congress directed the Secretary to encourage adoption of a cooperative industry study called “Common Ground Study Best Practices” and provided funding for that purpose. Congress also did some fine-tuning to make plain that compliance with One-Call Notification programs applied to government operators of pipelines or government excavators or contractors. These

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194 The category of outside force damage also includes landslides and earthquakes although these are a small percentage of the accidents categorized as “outside force.”


199 NTSB BELLINGHAM REPORT, supra note 99 at 72.


202 Id. at § 2(a).
measures were not controversial—in fact this Section went through both Houses virtually without amendment from the Introduction of the bill to its final approval. \textsuperscript{203}

Section 3. One-Call Notification of Pipeline Operators

Criminal penalties have applied for failure to notify pipeline operators before excavating since 1992. \textsuperscript{204} However, a court interpretation in 1999, made it virtually impossible to criminally prosecute an excavator that damaged a pipeline unless he did so intentionally. \textsuperscript{205}

Congress changed this interpretation so that the only intent requirement is that the excavator knowingly and willfully engages in excavation. If he 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”\textsuperscript{206} of the damage and fails to notify the pipeline operator. Criminal penalties can be reduced for promptly reporting the damage to the pipeline operator. \textsuperscript{207}

This provision might have prevented the Bellingham accident had it been in place eight or nine years earlier. In its report about that accident, the NTSB alleged that an excavator, IMCO General Construction, Inc., damaged the pipeline during the construction of the Bellingham water treatment plant in 1993 or 1994. \textsuperscript{208} One witness interviewed by NTSB reported that the pipeline was damaged during excavation and a decision was made not to notify the pipeline operator but to coat the damaged area and re-bury the pipeline. Under the new law, such action could lead to criminal prosecution.

\textsuperscript{203} \textit{Compare} H.R. 3609, 107\textsuperscript{th} Cong. § 2 (as introduced in the House) \textit{with} H.R. 3609, 107\textsuperscript{th} Cong. § 2 (enrolled bill).
\textsuperscript{207} \textit{Id.} at § 3(c)(4).
\textsuperscript{208} NTSB BELLINGHAM REPORT, supra note 99 at 17-25, 56-69, 71.
Knowledge of such consequences might prevent a contractor from making the same
decision again but one does wonder what efforts are being made to make excavators
aware of the provisions of this law.

Section 4. State Oversight Role

 Congress was told by both the General Accounting Office\textsuperscript{209} and an organization
that represents state pipeline inspectors\textsuperscript{210} that state inspectors would do a better job than
OPS inspectors. Since the adoption of the first pipeline safety law, Congress has
provided a means whereby States could take over inspections of some pipelines.\textsuperscript{211}

Improving state oversight was part of S.2438 (the bill that almost passed Congress
in the fall of 2000),\textsuperscript{212} and S. 235, which the Senate approved in February 2001.\textsuperscript{213}
However, Chairman Young did not propose such measures in his “less prescriptive” bill
in December 2001.\textsuperscript{214} The House Committees added the State Oversight section\textsuperscript{215} and
from that point on the Section remain unchanged.\textsuperscript{216}

\textsuperscript{209} 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 at (testimony of Peter F. Guerrero, Dir. Of
Physical Infrastructure Issues, General Accounting Office).

\textsuperscript{210} Hearings Before Senate Comm. on Commerce, Sci. and Transp., (May 4, 2000) (testimony of Charles R.
Kenow, Vice-Chairman of National Association of Pipeline Safety, “...recent 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.”)


\textsuperscript{212} S. 2438, 106th Cong. § 9 State Oversight Role (reported in the Senate, August 25, 2000).

\textsuperscript{213} S. 235, 107th Cong. § 9 State Oversight Role (passed Senate on Feb. 8, 2001, see, 147 Cong. Rec. S
1205.

\textsuperscript{214} Pipeline Infrastructure Protection to Enhance Security and Safety Act, H.R. 3609, 107th Cong. (2001) (as

\textsuperscript{215} Pipeline Infrastructure Protection to Enhance Security and Safety Act, H.R. 3609 § 22, 107th Cong.

\textsuperscript{216} Compare Pipeline Infrastructure Protection to Enhance Security and Safety Act, H.R. 3609 § 22, 107th
In this Section, Congress changed the balance of power between the States and the federal government where pipeline safety was concerned. Although the Secretary continues to retain sole authorization for enforcement,\textsuperscript{217} States have considerably broader power to take over inspection of interstate pipelines. This Section enumerates the determinations the Secretary must make to grant a State inspection authority, so that States know what is required.\textsuperscript{218} Congress entirely re-wrote the process for “Ending Agreements” to make two separate categories of termination (permissive vs. mandatory) and expressly provided that the Secretary may give a State an opportunity to correct deficiencies before ending an agreement.\textsuperscript{219} Although the previous statute already required notice and a hearing before terminating an agreement, the new statute delineates the process required for termination by expressly providing a section titled, “Procedural Requirements.” The Section also requires the Secretary respond to State allegations of violations of pipeline safety standards.\textsuperscript{220} The prior law mandated that the State inform the Secretary of such violations, but didn’t require the Secretary to respond.\textsuperscript{221} Under the new law, the Secretary must act within 60 days to either take appropriate enforcement action or provide written notice to the State why the Secretary decided against enforcement.\textsuperscript{222} These measures will all give considerably more direction to the Secretary and more power and influence to the States.

\begin{footnotes}
\item[218] Id.
\item[219] Id. at § 4(b).
\item[220] Id. at § 4(c).
\item[221] 49 U.S.C.A. § 60106(b) (2001).
\item[222] Pipeline Safety Improvement Act of 2002, H.R. 3609 § 4(c)(2), 107\textsuperscript{th} Cong. (2002).
\end{footnotes}
Section 5. Public Education Programs

Public education in communities near pipelines can save lives. Such programs promote the use of One-Call systems to reduce outside force accidents, explain the hazards of leaks to residents. Public education programs have been part of pipeline safety laws since at least 1976 but they have applied only to natural gas pipelines. The new law modified the language to include hazardous liquid pipelines. In addition to the former requirement for education about using One-Call systems, and hazards resulting from leaks, the new law requires education about how to recognize leaks, and what steps to take if a leak is suspected. While the old law didn’t say who to educate (other than the “public”), the new law specifies that the education programs must advise municipalities, school districts, businesses and residents in the location of the pipeline. The new law requires the Secretary (or the appropriate State agency) to periodically review these programs.

Early versions of the bill also contained a Community Right-to-Know provision. That provision did not survive. Although many proponents of pipeline safety believed that communities affected by pipelines should have a right to know about them, security concerns made the discussion too controversial to include in the pipeline

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224 Id.
228 Id.
229 Id.
230 Id.
safety bill and was deferred to later consideration in the broader context of homeland security legislation.\textsuperscript{33}

Had this new Section been in place in 1996, it might have prevented a grim accident in Lively, Texas.\textsuperscript{234} Two teenagers died when they smelled gas and drove to get help.\textsuperscript{235} Their truck ignited the butane cloud. The NTSB concluded that a public education program would have likely prevented the accident.\textsuperscript{236} A public education program might have informed them how to recognize a leak and what to do or not to do if a leak is suspected,\textsuperscript{237} (e.g., don’t start a car or use anything that might create a spark). The new law will make such education mandatory for communities that live near both liquid and gas pipelines.

Section 6. Protection of Employees Providing Pipeline Safety Information

Unions testified to Congress that pipelines would be safer if employees could notify regulators about safety problems before accidents occurred without fear of retribution from their employers.\textsuperscript{238} The Government Accountability Project had been seeking this protection for employees of Alyeska (the operator of the Trans-Alaska Pipeline).\textsuperscript{239} There was also a suggestion that employees within Olympic Pipeline (whose pipeline had exploded in Bellingham) had been complaining about at least one

\textsuperscript{33} Id. (remarks by Rep. Dunn).
\textsuperscript{235} Id. at 1.
\textsuperscript{236} Id. at 24.
\textsuperscript{237} Id.
\textsuperscript{239} Press Release, Government Accountability Project, Whistleblower Protection for Pipeline Workers (Nov. 15, 2002) (on file with author).
safety issue to Olympic management but that complaint went unheeded.240 Had action been taken, the accident could have been prevented.

Whistleblower protection was part of S.2438 and S.235 that passed the Senate in 2000 and 2001 respectively.241 While it was not in Chairman Young’s first proposal, his committee added it.242 This Section provides a procedure for employees who want to report a pipeline safety problem to regulators but fear retaliation from their employer.

The Department of Labor will oversee a complaint process and may, if the facts warrant, order reinstatement, back pay, and compensatory damages to the complaining employee. Pipelines now are added to the short list of regulated activities for which the U.S. Department of Labor provides heightened protection against potential retribution for employees alerting regulators to potential violations at their company.243

Section 7. Safety Orders

This Section adds a new part to § 60117 that gives the Secretary authority to order necessary corrective action for a “potentially safety related condition.” The Secretary’s authority includes whatever corrective action is “necessary,” including physical inspection, testing, repair, or replacement. This Section was not controversial and passed almost unchanged from the version that was introduced. The only pertinent change was that the version introduced by Chairman Young pertained to a “potentially unsafe

240 Ericka Pizzillo, Olympic Terminal “Nightmarish” Before Blast that Killed Three, BELLINGHAM HERALD, May 19, 2002 (on file with author).
241 S. 2438, 106th Cong. § 15 (as engrossed in the Senate); S. 235, 107th Cong. § 15 (passed Senate Feb. 8, 2002, see, 147 Cong. Rec. S1205).
243 U.S. Dept. of Labor, Occupational Safety & Health Administration, Discrimination Against Employees Who Exercise Their Safety and Health Rights, available at http://www.osha.gov/as/opa/worker/whistlew.html. The list includes such activities as asbestos abatement, protection of clean air and water, proper disposal of hazardous substances, aviation, and corporate fraud.
condition"\textsuperscript{244} while the Senate broadened that to a "potential safety-related condition."\textsuperscript{245} 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 the facility was unsafe.\textsuperscript{246}

Section 8. Penalties

The Office of Pipeline Safety's (OPS) use of penalties and enforcement has been a sore point with pipeline safety advocates. The City Attorney for Fredericksburg, Virginia testified that penalties amounted to less than five cents per barrel spilled.\textsuperscript{247} The General Accounting Office reported that Office of Pipeline Safety had virtually abandoned fines as an enforcement measure.\textsuperscript{248}

Furthermore, under the language of the old law, the Secretary could only shut down a pipeline or order corrective action if he found that a pipeline "is hazardous."\textsuperscript{249} There was no provision for preventive action. In essence, the Secretary's authority was limited to waiting for an accident to prove that a pipeline was hazardous in order to require corrective action.

The amendments provided by this Section should go a long way to resolving this issue. Virtually every committee that considered this issue provided for increased penalty authority but as the bill moved through Congress, this Section grew teeth.

\textsuperscript{244} H.R. 3609, 107th Cong. § 5 (2002) (as introduced in the House).
\textsuperscript{245} H.R. 3609, 107th Cong. § 7 (2002) (engrossed in the Senate).
\textsuperscript{246} 148 Cong. Rec. S11067 (Nov. 14, 2002).
\textsuperscript{248} U.S. GEN. ACCOUNTING OFFICE, THE OFFICE OF PIPELINE SAFETY IS CHANGING HOW IT OVERSEES THE PIPELINE INDUSTRY 26 (2000) (The GAO reported that OPS proposed fines in only 4% of enforcement actions in 1998).
\textsuperscript{249} See e.g., 49 U.S.C.A. § 60112 (2000). Pipeline facilities hazardous to life and property.
While the bill introduced by Chairman Young merely increased penalties by 50-100%, the House Committees increased the penalties further (100-300%), and added more provisions. The new language authorized the Secretary to take corrective action if a pipeline "is or would be" hazardous. [Emphasis added.] The former § 60122(b) did not authorize the Secretary to consider harm to the environment in setting penalties, the House remedied that omission. Another addition to this section permitted the Secretary to consider economic benefit gained from the violation without reduction for subsequent damages. The former § 60122(b) mandated that the Secretary consider "other matters that justice requires." The new law makes such consideration discretionary (the Secretary "may" consider) so that the Secretary has more control over the process.

The new language for § 60120(a) clarified the judicial powers conferred in the statute for civil actions. Courts are now expressly authorized to, (1) enforce corrective action orders issued under § 60112; (2) issue temporary or permanent injunctions; and (3) assess penalties.

The former § 60123(b) provided criminal penalties for damaging an interstate pipeline facility, whether gas or liquid. The House Committees added language that includes intrastate pipeline facilities that are used in interstate commerce.

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251 H.R. 3609, 107th Cong. § 6 (engrossed in the House July 23, 2002).
252 This is a glaring omission since liquid pipelines have caused $787,823,712 in property damages (including harm to the environment) over the last fifteen years, see OFFICE OF PIPELINE SAFETY, HAZARDOUS LIQUID PIPELINE OPERATORS ACCIDENT SUMMARY STATISTICS BY YEAR, 1/1/1986 - 1/30/2002.
253 H.R. 3609, 107th Cong. § 6 (engrossed in the House July 23, 2002).
254 Id.
255 This new language may necessitate rulemaking to clarify the definition of intrastate hazardous liquid pipeline in 40 C.F.R. 195.3. There, an interstate pipeline is defined as one used in interstate or foreign commerce and an intrastate pipeline is defined as not an interstate pipeline (and presumably not used in interstate commerce.) If, by definition, an intrastate pipeline is not used in interstate commerce, the new language added by the House Committees would seem to have no application in the case of hazardous liquid pipelines.
The changes made by the House Committees were still not strong enough for the Senate. The Senate insisted that the Comptroller General conduct a study of policies and procedures in assessing and collecting fines and penalties for pipeline operators.\textsuperscript{256} That study is to be completed within one year of enactment of the Act and should serve to keep the enforcement issue on the front burner.

This Section was sorely needed. Although the Secretary has assessed fines for some of the recent major accidents, as of this writing, neither the Bellingham fine ($3.05 million assessed in June 2000 for an accident that occurred in June 1999) nor the Carlsbad fine ($2.525 million assessed in July 2001 for an accident that occurred in August 2000)\textsuperscript{257} have yet been collected.

Section 9. Pipeline Safety Information Grants to Communities

This entirely new section provides $1 million annually for “technical assistance” grants that local groups and nonprofit organizations could use to promote pipeline safety in their communities.\textsuperscript{258} It opened a great divide between the Chairman Tauzin’s House Energy and Commerce Committee and Chairman Young (R-AK) who complained, “I didn’t know we were in the business of funding anti-pipeline activists.”\textsuperscript{259} His concerns were ultimately resolved in the Senate where that Chamber added an exception to prevent

\textsuperscript{256} H.R. 3609, 107\textsuperscript{th} Cong. § 8(d) (engrossed in the Senate Nov. 13, 2002).
\textsuperscript{257} Notice of Probable Violation and Proposed Civil Penalty from Chris Hoidal, Director, Western Region, Office of Pipeline Safety to Mr. Carl Gast, Vice President and Gen. Manager, Equilon Pipeline Co., LLC (June 2, 2000) (on file with author) (assessing a penalty of $3,050,000); Notice of Probable Violation and Proposed Civil Penalty from R.M. Seeley, Director, Southwest Region, Office of Pipeline Safety to John Somerhalder II, President, El Paso Energy Pipeline Group (June 20, 2001) (assessing a penalty of $2,525,000).
\textsuperscript{259} Id.
funding community groups working on safety of the Trans-Alaskan Pipeline in Chairman Young’s home state.\textsuperscript{260}

The technical assistance provided in the new § 60130 can be used to pay for engineering and scientific analysis of pipeline safety issues, not litigation or lobbying efforts. It includes 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 as to the identity and location of each recipient, the purpose of the grant, and a description of how the grant was used.

Section 10. Operator Assistance in Investigations

This Section amended two parts of the old statute and was added by the Senate.\textsuperscript{261} The old § 60118 merely required that a company permit access to and copying of records. It did not require owners or operators of facilities to assist in the investigation of accidents. The new law makes such assistance mandatory provided that it doesn’t interfere with constitutional rights (e.g., the 5\textsuperscript{th} 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.


\textsuperscript{261} Compare H.R. 3609, 107\textsuperscript{th} Cong. (2002) (the version engrossed in the House Jul. 23, 2002 has no such section) with H.R. 3609, 107\textsuperscript{th} Cong. § 10 (2002) (as engrossed in the Senate Nov. 13, 2002).
Section 11. Population Encroachment and Rights-of-Way

Unfortunately, this section gets the award for the one least likely to assist in pipeline safety. In 1988, the Transportation Research Board and produced a study titled, "Pipelines and Public Safety." That report studied land use issues with respect to pipeline safety. In the Accountable Pipeline Safety and Partnership Act of 1996, Congress directed the Secretary to make a copy of that report available to a public official in each state. The Secretary finally completed that task in 2001. In this section of the new law, Congress directs the Secretary to study the same things, (e.g., land use practices, zoning ordinances), that were studied in the 1996 report and determine effective practices to limit encroachment on pipeline rights-of-way. One wonders what Congress hopes this study will achieve that the 1998 study did not achieve.

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

This Section calls for research and development into several areas including internal inspection and leak detection, detection of cracks, corrosion and other abnormalities, and pipeline security. It brings together the expertise of the Department of Energy, the Department of Transportation and the National Institute of Standards and Technology. It has an interesting legislative history.

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262 TRANSP. RESEARCH BD., PIPELINES AND PUBLIC SAFETY (1988).
264 Compare U.S. GEN. ACCOUNTING OFFICE, THE OFFICE OF PIPELINE SAFETY IS CHANGING HOW IT OVERSEES THE PIPELINE INDUSTRY 60 (2000) (Table 11 shows that the 1996 requirement was not yet completed) with U.S. GEN. ACCOUNTING OFFICE, PROGRESS MADE, BUT SIGNIFICANT REQUIREMENTS AND RECOMMENDATIONS NOT YET COMPLETE 17 (2001) (Table 5 shows that the 1996 requirement has been completed).
It began as a stand-alone bill, H.R. 3929, offered by two democrats on the House Committee on Science, Ralph Hall and Lamar Smith. That Committee made two especially important 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.

Because many of the pipelines in our nation are thirty to fifty years old, these findings present the possibilities for unpredictable service interruptions with major economic impact, let alone fatal consequences.

In addition to these findings, recent accidents highlight the need for research and development. There is a tendency to view internal inspection of pipelines as a panacea. However, “smart pigs” have two major drawbacks. First, only about 35% of natural gas pipelines can accommodate them. Replacing those pipelines would be very expensive. Developing new means of testing pipelines or more accommodating internal inspection devices would make it easier to monitor the integrity of those pipelines.

Second, while they excel at detecting corrosion, smart pigs are not effective for detecting prior excavation damage, minute cracks, or other stress related damage. By way of illustration, several major accidents have occurred in the last few years on

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267 Id. at § 2. Findings.
268 Pipeline Safety: Hearing before the National Transportation Safety Board, Nov. 15, 2000 (remarks of Chairman Jim Hall).
270 Id.
pipelines that have been recently inspected.\textsuperscript{271} Obviously, mandating internal inspections will not end all pipeline accidents and further research is needed to improve our ability to ascertain the integrity of pipelines.

This Section of the statute forms a troika among the Department of Transportation, the Department of Energy, and the National Institute of Standards and Technology and directs this group to develop a five-year research plan on pipeline safety funded with annual appropriations of $25 million. The legislative history of the bill illuminates a problem that has faced pipeline safety advocates in the past and gives evidence that Congress heard and responded.

The provision originally approved by the House required this troika to consult with industry and state and local government about topics and priorities for research but required merely that other parties\textsuperscript{272} have an opportunity to provide "advice."\textsuperscript{273} Given the unresponsiveness of Office of Pipeline Safety in the past, this did not inspire confidence. The Senate changed this language to require consultation with a broader array of groups and put them all on an equal footing,\textsuperscript{274} giving reason for hope that communities impacted by pipelines will have a stronger voice in commenting on priorities for research.

Section 13. Pipeline Qualification Programs

This Section probably has its roots in the Bellingham accident. Two of the control room employees as well as Olympic Pipe Line Co. pled guilty to a failure to train


\textsuperscript{272} E.g., environmental organizations or pipeline safety advocates, etc.

\textsuperscript{273} H.R. 3609, 107\textsuperscript{th} Cong. § 9(b)(2-3) (as engrossed in the House Jul. 23, 2002).

\textsuperscript{274} H.R. 3609, 107\textsuperscript{th} Cong. § 12(d)(2) (as engrossed in the Senate Nov. 13, 2002).
their employees to operate the pipeline.\textsuperscript{275} Equilon pled nolo contendere to the same offense.\textsuperscript{276} In essence, a control room operator at Olympic Pipe Line received nothing more than on-the-job training to operate an ultra-hazardous facility carrying huge quantities of explosive material through a major city like Seattle with a population of 3.5 million.

The new Section requires that companies operating pipelines have a program in place to test the qualifications of employees who work on tasks that may be regulated. That testing may not be limited to on the job observation and must be documented in writing. The Secretary must verify each program including modifications to each program. There is a special pilot program for certification of individuals who operate computer-based systems for operating pipelines.

When this Section was initially introduced, it was limited to pipeline control room operators.\textsuperscript{277} By the time it finished House consideration, it had been largely re-written and pertained to anyone that performs a “covered task.”\textsuperscript{278} A “covered task” is defined by regulation.\textsuperscript{279} It remained largely untouched by the Senate who only tweaked it slightly, restricting waivers from the program to those not inconsistent with pipeline safety, providing for intrastate pipeline operators to be supervised by the appropriate

\begin{flushleft}
\textsuperscript{275} Plea Agreement at 1, U.S. v. Frank Hopf, Jr. (No. CR01-338R); Plea Agreement at 1-2, U.S. v. Ronald Dean Brentson (No. CR01-338R); Plea Agreement at 2, U.S. v. Olympic Pipe Line Co. (No. CR01-338R).

\textsuperscript{276} Plea Agreement at 2, U.S. v. Equilon Pipeline Co., LLC (No. CR01-338).

\textsuperscript{277} H.R. 3609, 107\textsuperscript{th} Cong. § 10 (introduced in the House Dec. 20, 2001).

\textsuperscript{278} H.R. 3609, 107\textsuperscript{th} Cong. § 10 (engrossed in the House Jul. 23, 2002);

\textsuperscript{279} For natural gas pipelines, it is defined in 49 C.F.R. § 192.801(b) and for hazardous liquid pipelines it is defined in 49 C.F.R. § 195.501(b). Essentially it 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.
\end{flushleft}
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).280

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

While the previous section of the bill grew out of the Bellingham accident, this one grew out of the Carlsbad accident. That accident killed 12 people and the ruptured pipeline segment had never been inspected in 50 years.281 Ironically, a nearby segment had been modified in the 1970’s so that it could be inspected.282 Moisture accumulated at a low point in the uninspected segment and corroded the pipe wall.283 Internal inspection devices excel at detecting corrosion, so if that segment had been able to accommodate internal inspection devices, the accident would not have happened.284 The solution is obvious. Natural gas pipelines should be internally inspected.

Unfortunately, making all natural gas pipelines able to accommodate internal inspection devices would be extremely costly. In the rulemaking that RSPA has been carrying out to comply with the new law, the Interstate Natural Gas Association of America (INGAA) has suggested that the cost of compliance with this section could be as high as $17.6 billion dollars over the next twenty years.285 This cost adds to the cost people pay for natural gas. The industry argued that it is unreasonable to expect pipelines

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282 CARLSBAD NTSB REPORT, supra note 141 at 16.
283 Id. at 41.
284 Id. at 50.
to be inspected in remote places like where the Carlsbad accident occurred. The industry has also sought to exclude pipelines near rural churches or bingo halls from having to be inspected, reasoning that such places are infrequently occupied. This debate continues to frame the testimony about integrity management for natural gas pipelines.

Also unfortunately, the statute is less than clear about what is required. The language says that a risk analysis is required for facilities located in areas identified pursuant to 49 U.S.C. § 60109(a)(1) and 49 C.F.R. 192, "including any subsequent modifications." But § 60109(a) merely tells the Secretary to establish criteria for identifying pipelines located in a "high-density population area" and doesn't define that term.

Confusingly, while the statute uses the term "high population area," RSPA's rulemaking defined the term "high consequence area" on August 6, 2002 in 49 C.F.R. § 192.761. (Note that the industry is trying to narrow this definition through a petition for reconsideration of the rulemaking.) The Congressional Joint Managers for the new bill also seemed to use the term "high consequence area" as an apparent synonym for "high population area."

286 Comment letter from Terry D. Boss, Interstate Natural Gas Ass'n. of Am. To Dockets Facility, U.S. Dept. of Transp. 3 (Mar. 11, 2002).
287 Id.
291 148 Cong. Rec. S11067 (Nov. 14, 2002) (the Joint Manager's 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.]
Since there is no statutory definition of high-density population area, the new law is ambiguous as to what Congress may have intended. However, the legislative history resolves the problem in at least two different ways.

First, the Joint Manager’s statement expressly refers to the RSPA rulemaking and endorses its approach:

“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 the July 2002 Technical Pipeline Safety Standards Committee meeting to consider the proposed definition, 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...”

The Carlsbad accident was obviously on the conferees’ minds in explaining this section of the bill. Their intent that such areas should be covered by integrity management requirements is unmistakable. However, this report is not the only support in the legislative history that argues that Congress meant to require that pipelines like the one near Carlsbad should be inspected under the new law.

In the fall of 2000, Congress considered S.2438, the Pipeline Safety Improvement Act of 2000. That bill had an inspection requirement that was different from the present bill but the language as to where pipelines must be inspected was almost

293 The accident occurred on August 19, 2000.
the same as the present law.294 Remarks in the Congressional Record supporting the bill mention the Carlsbad accident again and again. There were comments such as "This bill will help us avoid these terrible accidents in the future."295 "...the need for the legislation was highlighted by two recent pipeline explosions in Washington state and New Mexico."296 "[after referring to the Carlsbad accident]... The authors of this bill were determined to put the necessary specific requirements into the pipeline safety statutes that would prevent these kinds of accidents from happening again."297 Plainly, these legislators thought they were doing something to prevent another Carlsbad type accident.

Although S.2438 was not finally approved, the debate and commentary about Carlsbad continued the following year. Both New Mexican Senators sponsored a bipartisan bill, S.235, the Pipeline Safety Improvement Act of 2001.298 Once again, with the same language as the year before as to where pipelines needed to be inspected,299 there were floor speeches about Carlsbad. "[Hoping it would be passed quickly] so that the Office of Pipeline Safety can get about the business of better inspections to avoid catastrophes such as we faced near Carlsbad this last year."300 "I am here today... to work so that we don't have to think twice before camping with our families and friends. I am here to do my part... so that pipeline tragedies like in Carlsbad, do not happen

294 Compare S.2438 that calls for inspection in areas "identified pursuant to subsection (a)(1) [of § 60109] with H.R.3609 that calls 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 ties the statute to the regulations for natural gas pipelines.
299 147 Cong. Rec. S1176-03, S1200 (Feb. 8, 2001) (pipelines would have to be inspected "in areas identified pursuant to subsection (a)(1)").
again."301 "[After referring to the Bellingham and Carlsbad accidents] These tragedies, with their accompanying loss of life, are the basis for everyone's concern...lives and property are at stake."302 In the face of statements such as these, it is difficult to believe that these Senators didn't think their legislation would result in pipelines being inspected where people gather to camp and fish.

If this Section is properly applied, it will eventually be a critical piece in preventing mass accidents such as happened in Carlsbad, New Mexico. However, it is likely that such places will be inspected later in the first ten years rather than sooner. Congress mandated that companies inspect the highest risk pipelines first. In the meantime, pipelines are only getting older. What was made plain by the Carlsbad accident is that absent some form of meaningful inspection, companies are blindly operating corroding pipelines filled with explosive materials. What makes matters worse is that people have no way to know about the integrity status of a pipeline. It seems doubtful that anyone would realize that companies allow some segments to corrode until they explode. Now that inspections will be mandatory, some requirement may need to be added to post uninspected areas to notify people to maintain a safe distance.

Section 15. National Pipeline Mapping System

Congress mandated a national inventory of pipelines in 1992.303 OPS began to work with industry in 1994 to create a standardized mapping system to which operators could provide data; that system was completed in 1998. However, OPS did not mandate that companies submit their maps, preferring a voluntary approach that allowed

companies to submit their data as they wished. By January 2002, OPS had only acquired mapping for 64% of total pipeline mileage, although the statute mandating that inventory was passed in 1992.\textsuperscript{304}

Modern up to date mapping of pipelines is an essential component of regulation. Obviously, it is difficult to credibly assert that an agency inspects pipelines and imposes suitable protections for high consequence areas when it can’t even locate them. In addition, local governments can’t effectively plan and zone around pipelines when they can’t locate them. Although companies have been providing maps to local governments, the quality of those maps varies widely.

By way of illustration, maps provided to three New Mexico counties ranged from detailed, up-to-date maps made with global positioning software (Williams Energy Services) to barely legible, much reduced copies of 1964 USGS quadrangles (Equilon Pipeline).\textsuperscript{305} One can hardly expect a local government to do prudent land use planning about pipelines or provide emergency response for pipeline accidents when the maps that they have are decades out of date and unreadable. The statute will make modern up-to-date maps of pipelines in their area available to local governments through Section 15(c).

Furthermore, even companies are sometimes unaware of the names of communities along their pipelines. In Lively, Texas, when a Koch pipeline ruptured, the company didn’t know where Lively was and had to call the local sheriff to get directions. While the 911 operators were trying to answer emergency calls from citizens concerned

\textsuperscript{304} \textit{Reauthorization of the Pipeline Safety Program: Hearing Before the Subcomm. on Highways and Transit of the House Comm. on Transportation, 107th Cong. (Feb. 13, 2002) (testimony of Mark R. Dayton, Deputy Assistant Inspector General, U.S. Dep’t. of Transp. Mr. Dayton described this progress as “too little, too late.”)}

\textsuperscript{305} \textit{THE PIPELINE GROUP, EMERGENCY RESPONSE MANUAL FOR EMERGENCY RESPONSE PERSONNEL OF BERNALILLO, SANDOVAL AND VALENCIA COUNTIES OF NEW MEXICO (2000).}
about the explosion and fire, they were also having to give directions to Koch Industries in Wichita, Kansas to tell them where Lively, Texas was. If Koch had had an updated map, they might have known where Lively was.

The new law requires that all pipeline operators provide geospatial data to the National Pipeline Mapping System and requires that the operator keep that information updated. The party with primary operational control must be identified. Congress also provided that the Secretary may provide technical assistance to communities so that they can adapt their emergency response systems to utilize the National Pipeline Mapping System.

Section 16. Coordination of Environmental Reviews

When regulations were promulgated for integrity management of hazardous liquid pipelines, RSPA imposed three deadlines (Immediate, 60 days, and 180 days) within which companies must repair defects in pipelines in high consequence areas. The deadline for repairing a defect differed based on the likely risk posed to the integrity of the pipeline. However, this presented companies with a dilemma. Some permits would take longer to get than the deadline allowed for completion of the repair. This new Section responds to this concern.

This was a hotly debated Section. The original proposal by Chairman Young included not just "repair" but also "rehabilitation" projects; it permitted the Secretary

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306 Audio tape: Kaufmann County, Texas, Sheriff’s Dep’t. and 911 Response during the Lively, Texas Pipeline Explosion and Emergency Response (Aug. 26, 1996) (on the tape, the Koch employee is told that the pipeline that exploded is in Lively, Texas, but the employee apparently does not have a map that shows Lively and does not know where it is. At least ten times, the man asks for directions to Lively while operators and sheriff’s employees are trying to respond to the emergency.)

307 The statute excludes distribution and gathering pipelines.

308 See, 49 C.F.R. § 195.452.

309 Pipeline Integrity Management in High Consequence Areas. 49 C.F.R. 195.452 § (h)(4)(i-iii).

of Transportation to terminate the jurisdiction of a federal agency that 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. None of those provisions survived in the final version.

The statute directs the President to establish an Interagency Committee to develop a coordinated environmental review process. The Chairman of the Council on Environmental Quality chairs that committee (not the Secretary of Transportation as Chairman Young proposed). Members include all agencies with responsibilities for permitting activities related to pipeline repair. The Committee is to prepare a compendium of best practices for access, excavation and restoration of a pipeline repair site and enter into a Memorandum of Understanding (MOU) among those agencies to provide expedited permitting for companies who need to repair pipelines. That MOU requires the unanimous consent of all agencies on the Committee, assuring that environmental protection would remain important. Congress expressly provided that this Section did not preempt any Federal, State or local environmental law.

There is no definition of what is meant by "repair" under the statute. The statute refers only to a "coordinated environmental review and permitting process in order to enable pipeline operators to commence and complete all activities necessary to carry out pipeline repairs within time periods specified by rule by the Secretary." This language would seem to preclude covering other activities that would not normally be considered a "repair," for example, a conversion of a pipeline from one use to another that requires major rehabilitation. The savings provision that continues to require compliance with all

311 Id.
federal, state and local environmental laws would seem to prevent this Section from becoming a Trojan horse that allows pipeline operators to escape compliance with environmental laws.

Section 17. Nationwide Toll-Free Number System

This simple provision directs the Secretary, in conjunction with the Federal Communication Commission to establish a single nationwide three-digit telephone number for one-call notification. This was requested by Common Ground Alliance in the belief that it would enable better promotion of and compliance with One-Call Notification Systems.313

Section 18. Implementation of Inspector General Recommendations

The Department of Transportation Inspector General (DOT-IG) had prepared an audit of the Office of Pipeline Safety that skewered the agency.314 The DOT-IG reported that as of the year 2000, OPS had not completed mandates Congress had passed in 1992 and 1994.315 OPS put only 25% of its research dollars into internal inspection despite the fact that such tools have been proven reliable for detecting corrosion and research may enable them to detect additional types of defects.316 OPS safety inspectors had only minimal training in the use, capabilities and interpretation of internal inspection data despite the fact that internal inspection was becoming a central part of the agency’s integrity management program.317 Reporting categories for pipeline accidents were so broad and general that 26% were reported as caused by “Other,” thus making it

315 Id. at 3.
316 Id.
317 Id. at 4.
impossible to do any trend analysis or make meaningful assessments about causes of accidents.\textsuperscript{318} Regulations did not permit OPS to require a pipeline operator to correct its accident reports even if substantial changes were plainly warranted. In eight transmissions accidents investigated by the NTSB, in three cases NTSB found a different cause than reported by the operator and five investigations found $20.4$ million dollars more property damages than reported.\textsuperscript{319} Finally, despite a DOT order that required agencies to develop and submit timetables to NTSB for addressing safety recommendations, RSPA had not provided timetables for 21 of 23 NTSB recommendations and some were outstanding since 1987.\textsuperscript{320} The DOT-IG made specific recommendations to address all of these failures.

In this Section of the Statute, Congress mandated that the Secretary implement all of those DOT-IG recommendations. To give the Secretary an incentive to comply, Congress required the Secretary to submit progress reports on the implementation of those recommendations every ninety days to oversight Committees in the House and the Senate until all recommendations were implemented.

Section 19. NTSB Safety Recommendations

There is already a statute that requires the Secretary of Transportation to formally respond to each recommendation made by the NTSB.\textsuperscript{321} The new statute reiterates that this includes recommendations made pertaining to pipeline safety. It also requires public availability of the Secretary’s response and annual reporting to Congress as to the Secretary’s responses.

\textsuperscript{318} Id.
\textsuperscript{319} Id. at 5.
\textsuperscript{320} Id.
\textsuperscript{321} Secretary of Transportation’s Responses to Safety Recommendations. 49 U.S.C. § 1135 (2003).
Section 20. Miscellaneous Amendments

Buried in what seems like an innocuous Section, is a virtually summary of Congressional intent with respect to the new law. Before this new statute, federal law provided merely "minimum safety standards." In this Section, Congress set out a new Purpose for pipeline safety 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." [Emphasis added.] In addition, Congress provided that persons "selected from the general public" to serve on the Technical Pipeline Safety Standards Committees in 49 U.S.C. § 60115 must not have a significant financial interest in the pipeline, petroleum or gas industry. The Joint Managers statement clarified the intent of this last provision. It is intended to prevent industry employees and those with a sizeable stake in the pipeline industry from serving in slots intended for the general public. It is not intended to prevent service from individuals who may have stock in such companies in their retirement plans.

This Section sums up the new law—Congress wanted: (1) higher safety standards (adequate, not minimum), (2) increased federal enforcement, and (3) assured representation by the public in DOT procedures.

Section 21. Technical Amendments

As the name suggests, these are just technical amendments.

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Section 22. Authorization of Appropriations

It is interesting to compare the appropriations provided for pipeline safety ten years earlier (about $9 million)\textsuperscript{325} to what Congress provided in this bill ($45-50 million). This is a significant increase and seems to indicate Congressional recognition that part of the problem in the Office of Pipeline Safety may have been inadequate resources.

Section 23. Inspections by Direct Assessment

Direct assessment includes visual examination of the pipeline, ultrasonic examination and X-Ray.\textsuperscript{326} OPS does not yet have completed confidence in these methods.\textsuperscript{327} Operators who wish to use direct assessment will have to provide written justification to OPS explaining why internal inspection is not economically feasible.\textsuperscript{328}

Section 24. State Pipeline Safety Advisory Committees

The Section was inserted by the Senate\textsuperscript{329} and requires that the Secretary respond to recommendations for improvements from State Pipeline Safety Committees appointed by a Governor within ninety days. This Section of the statute shows again that Congress intended that States should have a strong voice in pipeline safety.

Section 25. Pipeline Bridge Risk Study

The Section was also inserted by the Senate.\textsuperscript{330} The Secretary is only permitted to use funds specifically appropriated for this purpose.

\textsuperscript{327} Teleconference Notes: Making Sense of Pipeline Integrity Legislation and Proposed Regulation” (Feb. 26, 2003), Docket No. RSPA-00-7666-173 (Presentation by Mike Israni).
\textsuperscript{329} Compare H.R. 3609, 107\textsuperscript{th} Cong. (as engrossed in the House Jul. 23, 2002; this version does not contain such a Section) with H.R. 3609, 107\textsuperscript{th} Cong. § 24 (as engrossed in the Senate Nov. 13, 2002).
\textsuperscript{330} Compare H.R. 3609, 107\textsuperscript{th} Cong. (as engrossed in the House Jul. 23, 2002; this version does not contain such a Section) with H.R. 3609, 107\textsuperscript{th} Cong. § 25 (as engrossed in the Senate Nov. 13, 2002).
Section 26. Study and Report on Natural Gas Pipeline and Storage Facilities in New England

In this Section, Congress was concerned about potential shortages of natural gas for gas fired power plants in New England. It requires the Federal Energy Regulatory Commission and the Department of Energy produce a study on the natural gas transmission network and natural gas storage facilities in New England. The Senate added this Section.\textsuperscript{331}

WOULD THESE CHANGES HAVE PREVENTED PREVIOUS ACCIDENTS?

Serious pipeline accidents tend to be a result of a concatenation of unwise practices that finally coalesce into one horrible conflagration.\textsuperscript{332} This was certainly true of the Bellingham accident. Analyzing the NTSB Report from that accident, several Sections of this bill would seem to reduce the potential for such carnage to be visited upon another city. Four of the five major safety issues identified by the NTSB are addressed by the new statute:

1) Excavation damage—Sections 2 and 3, One-Call Notification Requirements—the new criminal penalties might have given the construction company an adequate incentive to notify Olympic Pipe Line Co. of the damage to its pipeline rather than just re-burying the damaged pipeline.

\textsuperscript{331} Compare H.R. 3609, 107\textsuperscript{th} Cong. (as engrossed in the House Jul. 23, 2002; this version does not contain such a Section) with H.R. 3609, 107\textsuperscript{th} Cong. § 26 (as engrossed in the Senate Nov. 13, 2002).

\textsuperscript{332} See NTSB BELLMINGHAM REPORT, supra note 99 at 71. (This report lists at least nine different things that went wrong to result in the Bellingham accident.)
2) Flawed interpretation of internal inspection results—Section 13, Qualification Programs—might ensure that those who evaluate internal inspection reports are better trained so they don’t miss critical information.

3) Adequacy of management of construction of a new terminal—Section 6, Whistleblower protection—employees of Olympic Pipe Line Co. had complained to management about the frequent unexplained shutdowns of valves to no avail. This new provision might resolve such complaints before a pipeline ruptures from one too many sudden shutdowns.

4) Performance and security of computer system—Section 13, Qualification Programs—the system administrator of the computer system at Olympic Pipe Line Co. had no formal training and his actions just prior to the accident may have contributed to the failure of the computer system. The statute provides a special pilot program for certification of individuals who operate computer-based systems for controlling the operations of pipelines.

Whether the new statute would have prevented the Carlsbad accident is an open question. In the present rulemaking, the industry is seeking a substantial limitations on the requirement to inspect natural gas pipelines. If the industry succeeds in excluding places like Carlsbad from inspection requirements, then one would have to conclude that Congress failed to change the status quo.
WHAT MORE COULD CONGRESS DO?

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

Based on history, pipeline safety gets Congressional attention when bad accidents occur. Certainly, one hopes that bad pipeline accidents are part of our history, not our future. In case that proves not to be the case, the following are some suggestions of ways that present laws could be changed to improve the situation.

1) **Strict liability for hazardous liquid pipeline spills.** Annually, there are many more spills per mile from hazardous liquid pipelines than from natural gas pipelines. If Congress were to implement strict liability for such spills with a penalty based on the volume spilled, companies would have an economic incentive to work harder at avoiding spills and reducing their magnitude. Based on the experience of the natural gas industry, which has fewer leaks per mile of pipeline, improvement should be possible. Furthermore, this would provide a way for communities to assess the performance of pipeline operators—those paying fewer and smaller fines might be better potential neighbors.

2) **Implement misdemeanor criminal offenses.** In other environmental statutes, there is a lower standard for prosecution of lesser offenses. For example, in the

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334 According to the OPS 2002 statistics, there were 139 accidents on 161,189 miles of hazardous liquid pipelines while there were 80 accidents on 287,000 miles of natural gas transmission pipelines.
Clean Water Act, there are misdemeanor penalties that allow criminal prosecution for negligent discharges. The same should be true of pipeline safety. In fact, the Clean Water Act already applies to pipeline spills where they contaminate water, so expanding the coverage should not be unduly burdensome. The key to the next level of protection in pipeline safety is to prevent the small, negligent accidents so that companies using unwise practices do not develop bad habits that someday combine to produce one large accident.

3) Permit states to run the pipeline safety program and expressly permit states to tax the pipelines within their borders on a per mile basis to pay for it. The Clean Water Act permits states to take over the majority of the water pollution program from the federal government. Pipeline safety laws should permit the same. States would be far more likely to watch out for the safety of their citizens than a regional office of federal workers who are overly influenced by industry.

4) Enforcement in the sunshine. Require OPS penalty enforcement to take place in public. Now, OPS publishes press releases when it proposes a fine on a company but then releases no information on whether that fine has been collected. If OPS had a public enforcement docket on the web similar to its rulemaking docket, the public could oversee the process.

5) Remove federal preemption. Re-consider the need for federal preemption of pipeline safety laws. Preemption is generally based on the need for uniform regulation. However, pipeline companies often argue that every pipeline is different and

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336 Id. at § 1342(b).
337 The docket is available at http://dms.dot.gov.
so “one size fits all” is wasteful and ineffective. If that is true, it suggests that federal preemption may similarly be unnecessary.

6) **Incentives for replacement of old pipelines.** There is abundant evidence that newer pipelines are considerably safer than old ones. Provide a streamlined permitting process to replace old pipelines with newer ones and perhaps tax incentives to replace older pipelines in High Consequence Areas.

7) **Require posting of pipelines that are not inspected.** As a pipeline ages, if there is no requirement to inspect it, that amounts to a decision that it is acceptable for the pipeline to blow up without warning. If a decision like that has been made, it seems the least the company could do is to prominently post the area that it presents a danger and inform the public what a safe distance to maintain would be.

8) **Move pipeline safety to the Environmental Protection Agency (EPA).** Congress has now given the OPS clearer, more defined statutory requirements. If the performance of OPS does not improve, it 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.” However, the EPA has a considerably better reputation for understanding its responsibilities to protect communities and guard the environment.

9) **Reduce corporate protections for corporate shareholders of pipelines.** Major corporations reduce their liability for pipeline accidents by purchasing shares of

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338 Supra note 45.
small pipeline corporations. These pipeline corporations may be inadequately
capitalized and may be forced into bankruptcy by a major spill. The large shareholder
corporation is insulated from liability for accident consequences by the corporate
structure. Congress should make it easier to pierce the corporate veil in such
circumstances so that the large corporations have a greater fiscal incentive to manage
their ownership in pipeline corporations more wisely.

10) **Lower the requirements for citizen suits.** Congress has limited the
circumstances under which a citizen can bring an enforcement action under the pipeline
safety laws. Other environmental statutes give broader powers to citizens to help
enforce the law. This would be another way of giving the OPS more “backbone.”

**SUMMARY**

The Pipeline Safety Improvement Act of 2002 was needed. Pipelines can be
safer. This statute mandates steps that many responsible industry members probably had
already taken voluntarily. Public education for communities that have to respond to
accidents from a company’s facilities is good business. Up-to-date maps so that the
company knows the names of communities at risk are not too much to ask. Training
employees who operate and maintain hazardous facilities is reasonable on its face.
Periodically inspecting a 50-year-old transportation mechanism is something no airplane
passenger would fly without, yet the natural gas industry continues to operate pipelines
that are that old without inspecting them.

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341 See, e.g., NTSB BELLINGHAM REPORT, supra note 99 at 1 (see footnote 1).
342 In fact, Olympic Pipe Line Company has filed for bankruptcy as a consequence of the Bellingham
accident.
Experience has shown not all members of the industry do what is required to protect people around their pipelines. They do only what is required by statute.

The natural gas industry continues to fight Congressional intent through its efforts in the rulemaking on integrity management of natural gas pipelines. The industry reasons that consumers would prefer to pay less for their energy. Obviously, one would always like to pay less rather than more. The real question is whether we as a society should permit innocent victims to die rather than mandate the use of thirty-year-old technology to verify the integrity of pipelines.

CONCLUSION

Congressional intent in the Pipeline Safety Act of 2002 can best be summarized by a story of one of the victims of the worst pipeline accident in 25 years:345

On August 19, 2000, five-year-old Kirsten Sumler was enjoying the great American outdoors with her mother, Amanda Smith. They were fishing on the banks of the Pecos River with ten other members of their extended family. When the uninspected, 50-year-old El Paso pipeline exploded, it was so hot that it turned the desert sand to glass and turned the concrete of a nearby bridge to powder. Later, when the rescuers were finally able to approach, they tried to evacuate Kirsten first. She cried because she did not want to leave her mother. Amanda told her to go with the fireman. She promised her daughter that he would take good care of her.

Now, Kirsten was well beyond where good care would help and she died at the burn unit in Galveston, Texas. Amanda died later.

345 This story comes from a conversation with Millyn Dolphin, the flight nurse that assisted in the evacuation of Kirsten Sumler from the Carlsbad pipeline accident on August 19, 2000.
Amanda's promise to her daughter embodies the promise that Americans want from the pipeline industry. They want to know that the people in communities near pipelines will be well taken care of. If those people are merely collateral damage in the quest for cheaper energy, communities where new pipelines are proposed will quite reasonably oppose that siting.

Certainly, members of Congress heard that message when they passed the Pipeline Safety Act of 2002. Only time will tell whether the pipeline industry, particularly those who operate natural gas pipelines, heard that message as well.