

I. Executive Summary

Recent injuries and deaths due to pipeline accidents and explosions have renewed the public's concerns regarding pipeline safety. On August 19, 2000 an explosion on an El Paso Natural Gas Company pipeline near Carlsbad killed 12 people, two extended families, including a six-month old infant. Unfortunately, this was not an isolated incident. On June 10, 1999, in Bellingham, Washington, a pipeline exploded, killing two ten-year-old boys and an 18-year-old man.

Pipeline Accidents Are Increasing

Many pipeline accidents happen each year. Pipelines pose a serious threat to public safety and the environment. Each year in the United States, oil pipelines spill an average of 11 million gallons, an amount equivalent to the oil spilled by the Exxon *Valdez*.

New Mexico has thousands of miles of oil and natural gas pipelines that crisscross the state like a tangled net. The state's 13,000 miles of intrastate natural gas pipelines could stretch from Albuquerque to Bombay, India. New Mexico has a similarly poor track record of safety on its pipelines with over 800 pipeline spills since 1985.

Pipeline accidents are increasing – 4 % per year between 1988 and 1998. According to the Office of Pipeline Safety (OPS), from 1988 through 1998, 226 people died and 1,030 people were injured in major pipeline accidents. Natural gas pipelines were responsible for three-quarters of these fatalities and injuries. Major pipeline accidents also caused \$700 million in property damage during the same ten-year period, nearly half attributable to hazardous pipelines (those carrying crude oil or unrefined fuels).

The OPS decreased the proportion of enforcement actions in which it proposed fines from 49 percent to about 4 percent during 1990 to 1998. A recent General Accounting Office (GAO) report found the OPS had failed to implement 12 of the National Safety Board's recommendations since 1992, with an implementation rate lower than all other Department of Transportation agencies.¹ The OPS has also failed in implementing statutory requirements (those passed and signed into law). Again, the GAO report found that nearly half of statutory requirements have not been implemented. Ten of the 12 statutory requirements from 1988-1992 are now 5 to 11 years past the deadlines set forth in the statutes.

Major findings:

- Since 1985, 267,299 barrels (over 11 million gallons) of oil, gas, produced water and condensed gas have spilled from New Mexico's pipelines. Nearly 80% of this volume was spilled oil.
- 84% of the amount spilled was completely lost to the environment and unable to be recovered (226,660 barrels or over 9.5 million gallons).
- Corrosion is responsible for 48% of pipeline accidents in New Mexico, the largest single cause of spills from pipelines.

¹ The National Safety Board is responsible for providing independent analysis and recommendations for the various divisions of the Department of Transportation in order to improve safety records.

- None of New Mexico’s regulatory bodies have a complete map of all the pipelines in the state available for the general public. The Public Regulation Commission’s pipeline division has only a hand-drawn map on its wall. Nationally, the Pipeline Mapping System is similarly inadequate. As of January 2001, they had only 45% of total pipeline mileage received and shown on their maps.

Decision-Makers Failing to Act

New Mexico legislators introduced several bills to address pipeline safety in the 2001 Legislative Session. While these bills indicate a willingness on the part of the state to improve pipeline safety, they do not go far enough to fully protect the health and safety of New Mexicans. Several of them were memorials that asked the federal government to improve safety standards. Both the federal government and the Office of Pipeline Safety have been slow and unresponsive in adopting safety regulations.

In Washington State, where a pipeline accident similarly disastrous as the Carlsbad accident recently jolted the public, the state legislature has passed significant pipeline safety reforms. New Mexico state policy makers, in contrast, have been slow to act. The New Mexico Public Regulation Commission recently order a study and review of New Mexico’s pipelines due out in September. This provides opportunity to find ways to make pipelines safer in New Mexico.

Safer Pipelines are Possible

Aging infrastructure, lax safety standards, and weak oversight and enforcement have turned New Mexico’s pipelines into accidents waiting to happen. The following are our recommendations for improved pipeline safety and accountability.

1. Prevent Pipeline Disasters

Require Better Monitoring

- Require regular integrity testing of pipelines
- Require better training and oversight of staff
- Require pipeline companies to provide pipeline mapping data with the possible exception of gathering lines

Require Safer Pipelines

- Require double-walled pipelines especially in high consequence areas
- Require state of the art leak detection system and automatic shut off valves
- Dig up and inspect pipelines more than 20 years old
- Require setbacks of at least 1,000 feet for high-risk areas for pipelines larger than 8 inches

2. Hold Pipeline Companies Responsible for Accidents

- Establish mandatory fines
- Require strict and thorough reporting

II. Pipeline Accidents and Trends

Recent injuries and deaths due to pipeline accidents and explosions have renewed the public's concerns regarding pipeline safety. On August 19, 2000 an explosion on an El Paso Natural Gas Company pipeline near Carlsbad killed 12 people, two extended families, including a six-month old infant. The explosion of the 30-inch, 50-year old natural gas pipeline left a crater 86 feet long, 46 feet wide and 20 feet deep.² Unfortunately, this was not an isolated incident. On June 10, 1999, in Bellingham, Washington, a pipeline exploded, killing two ten-year-old boys and an 18-year-old man. The explosion, due to a rupture of the pipeline, also destroyed all life in Whatcom creek, including fish, plants, and trees, and spilled over 250,000 gallons of oil into the creek and surrounding environment.

More Accidents: A National Trend

Many pipeline accidents happen each year. Pipelines pose a serious threat to public safety and the environment. Each year, oil pipelines spill an average of 11 million gallons, an amount equivalent to the oil spilled by the Exxon *Valdez*.³ According to the Office of Pipeline Safety (OPS), over 1.5 million barrels of hazardous liquids – primarily crude oil and gasoline – were spilled from pipelines as a result of all pipeline accidents reported to OPS.⁴ However, the total amount spilled from pipelines is greater, because OPS does not require pipeline operators to report spills of less than 50 barrels. Pipeline accidents are increasing – 4% per year between 1988 and 1998.⁵ During this same time, total pipeline miles increased by 10%. According to the OPS, from 1988 through 1998, 226 people died and 1,030 people were injured in major pipeline accidents.⁶ Natural gas pipelines were responsible for three-quarters of these fatalities and injuries. Major pipeline accidents also caused \$700 million in property damage during the same ten-year period, nearly half attributable to hazardous pipelines (those carrying crude oil or unrefined fuels).⁷

Pipeline accidents increased 4% per year between 1988 and 1998.

The OPS decreased the proportion of enforcement actions in which it proposed fines from 49 percent to about 4 percent during 1990 to 1998.⁸ The GAO report also found the OPS had failed to implement 12 of the Safety Board's recommendations since 1992, with an implementation rate lower than all other Department of Transportation agencies. The OPS has also failed to implement nearly half of all statutory requirements (those passed

² "Experts Unraveling Pipeline Mystery," Michael Coleman, Albuquerque Journal, December 3, 2000.

³ "Stop the Spills," WashPIRG 1999, www.pirg.org/washpirg.

⁴ General Accounting Office (GAO), *Pipeline Safety: The Office of Pipeline Safety Is Changing How It Oversees the Pipeline Industry*, May 2000.

⁵ Ibid.

⁶ Ibid.

⁷ Ibid.

⁸ Ibid.

and signed into law). Ten of the twelve statutory requirements from 1988-1992 with deadlines stated in the statutes are now five to eleven years past these deadlines.⁹

New Mexico

New Mexico has thousands of miles of oil and natural gas pipelines that crisscross the state like a tangled net. New Mexico has over 13,000 miles of intrastate natural gas pipelines – enough to stretch from Albuquerque half way around the world to Bombay, India. Many of these pipelines go through cities and towns, through residential neighborhoods and near schools. In Placitas, a current proposal would reopen a 50-year-old pipeline running approximately 200 feet from the grounds of an elementary school.

New Mexico has a similarly poor track record of safety on its pipelines. Since 1985, 267,299 barrels (over 11 million gallons) of oil, gas, produced water and condensed gas have spilled from New Mexico’s pipelines.¹⁰ The vast majority, nearly 80% of this volume, was spilled oil. Eighty-four percent (226,660 barrels or over 9.5 million gallons) of the amount spilled was completely lost to the environment and unrecoverable.

As indicated in the pie chart on the following page, the largest cause of pipeline accidents was corrosion (48%). Appendix A provides the complete list of pipeline spills as compiled by the New Mexico Oil Conservation Division.

Even these staggering amounts are likely underestimated, as New Mexico requires companies to only report spills over 5 barrels.¹¹ Even then, according to the New Mexico Oil Conservation Division some larger spills go unreported or undiscovered.

New Mexico Pipeline Spills 1985-2000¹²

	Total Volume	Produced Water	Condensed Gas	Gasoline	Total Lost/Unrecovered
Barrels	267,299	37,468	124	12,641	226,660
Gallons	11,226,558	1,573,656	5,208	530,922	9,519,720
Percent (%)	100	14	<1	4.7	84.7

None of New Mexico’s regulatory bodies have a complete map of all the pipelines in the state readily available for the general public. Only the Public Regulation Commission’s

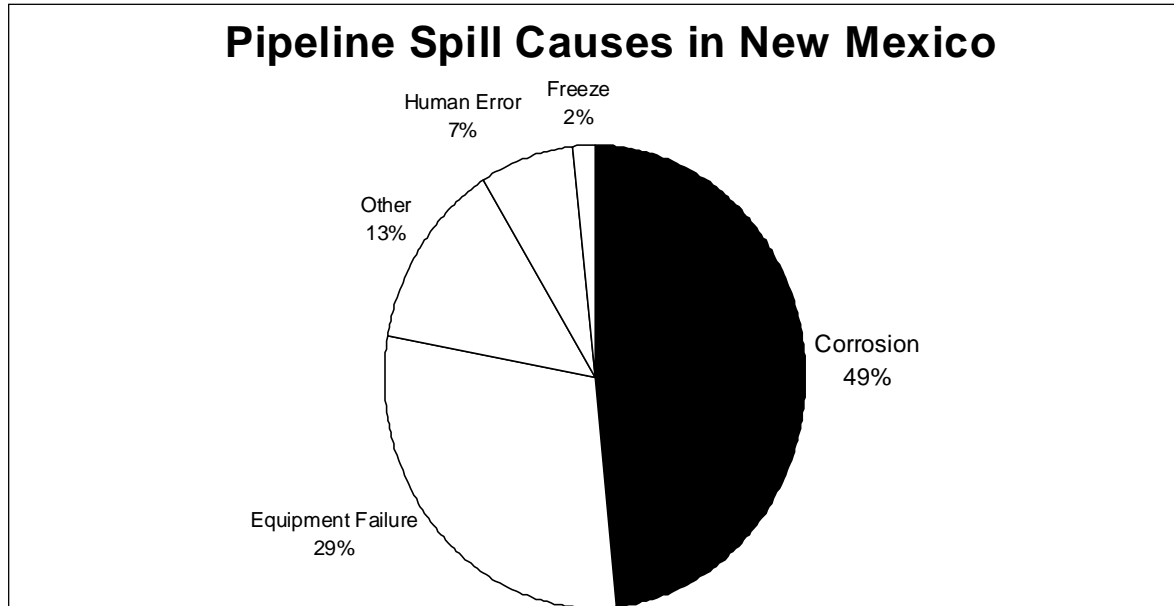
⁹ Ibid.

¹⁰ Data from Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department spill database. See also Appendix A for complete list.

¹¹ Conversation with Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department reveals the state has a reporting requirement of 5 barrels while the federal government requires reporting at 50 barrels.

¹² Ibid. Note: Spills in the database included spills from hazardous pipelines (oil or unrefined fuels) and natural gas pipelines. The majority of the spills were oil or natural gas. However, most of the records denoted the categories shown above. Produced water is water contaminated with oil, gas or other pipeline products that is leaked from pipelines during water pressure tests of pipelines.

pipeline division has one complete, hand-drawn map on its wall.¹³ Nationally, the Pipeline Mapping System is similarly inadequate. Their goal was to collect 70% of national gas and hazardous liquid pipeline data by the end of 2000. However, as of January 2001, they had only 45% of total pipeline mileage received and shown on their maps (See maps in Appendices B and C).¹⁴



Last June, the New Mexico First, a non-profit founded by Senators Domenici and Bingaman, held a Town Hall focusing on New Mexico’s Energy Future.¹⁵ The background report discussed concern regarding the safety of New Mexico’s aging pipelines. On the regulatory future it states, “One of the biggest issues facing the division [New Mexico Oil Conservation Division] in the future is the aging infrastructure of the oil and gas industry in New Mexico. . . . Older pipelines and other equipment could pose leak hazards at the surface. Growing environmental awareness and advancements in technology are now calling to question some operational practices that were acceptable in the past.”¹⁶

Participants at the Town Hall (June 1-4, 2000) echoed this concerned stating:

The Town Hall is concerned about the aging infrastructure, particularly pipelines used by the oil and gas industry, and how that infrastructure, if not

¹³ Personal communication with Joe Johnson and other staff of the Pipeline Division of the Public Regulation Commission.

¹⁴ Environmental Defense, Lois Epstein, P.E.: from 1/5/01 January newsletter to Office of Pipeline Safety advisory committee members.

¹⁵ New Mexico First is a major non-profit, non-partisan public policy organization, which was founded in 1986 by the two United States Senators from New Mexico, Pete Domenici and Jeff Bingaman. The purpose of the organization is to provide a forum for citizens representing all segments of the state’s population to come together, deliberate, debate and come to consensus on public policy issues vital to moving the state forward.

¹⁶ *New Mexico;s Energy Future: Report of the Twenty-Fourth New Mexico First Town Hall, June 1-4 2000*, New Mexico First, report by New Mexico Institute of Mining and Technology.

updated or replaced as necessary, could harm the environment. Industry should be encouraged to upgrade its infrastructure on a timely basis. Incentives may be appropriate.¹⁷

Unfortunately, these improvements did not take place in time to avoid the Carlsbad explosion.

What went wrong in Carlsbad?

While the investigation into the Carlsbad explosion is still underway, early reports have indicated potential causes for the most fatal pipeline explosion in the continental United

“It occurred in a desolate area, but in terms of explosive power and heat damage it might be the biggest (pipeline explosion) we have looked at. It was quite devastating.”

Metallurgist Frank Zakar, *The Albuquerque Journal*, December 3, 2000

States in the past 25 years. The National Transportation Safety Board sent a number of experts to examine the damaged site and safety records. What is now known is that the section of the ruptured El Paso Natural Gas pipeline was never internally inspected for safety or subjected to a pressure test.¹⁸ According to Bob Chipkevich, director of the federal Office of Pipeline and Hazardous Materials Safety, it appears internal corrosion, not excavation, may have been the main factor in the explosion of the 50-year-old pipeline.¹⁹ Furthermore, the investigation is looking into the minimum federal regulations and industry standards. In a recent interview Chipkevich said, “We ask if the standards were met. If they were, then maybe the standards are not sufficient.”²⁰ Clearly the lack of frequent inspection requirements and, in this case, complete absence of inspections since the pipeline was first installed 50 years ago, indicates insufficient safety standards. If testing had been required, the corrosion may have been noticed and fixed -- before it was too late.

As noted throughout this chapter, pipeline safety is of major concern for communities across the nation and especially New Mexico. Jim Hall, the former Safety Board Chairman, recently

stated, “The safe transportation of natural gas and liquid petroleum products by pipeline is vital to meeting the energy needs of every community in our country. However, during the past two years, we have seen several failures involving aging pipelines. It is time to examine technologies available to assess the condition of our pipeline systems.”²¹ Given the increase in accidents and problems with regulatory oversight, it is time to protect the health and safety of the public by requiring safer pipelines, better enforcement and better monitoring. We should not wait until more people die or are injured to take action.

¹⁷ Ibid.

¹⁸ Coleman, M. December 3, 2000, “Experts Unraveling Pipeline Mystery,” *The Albuquerque Journal*, Albuquerque.

¹⁹ Ibid.

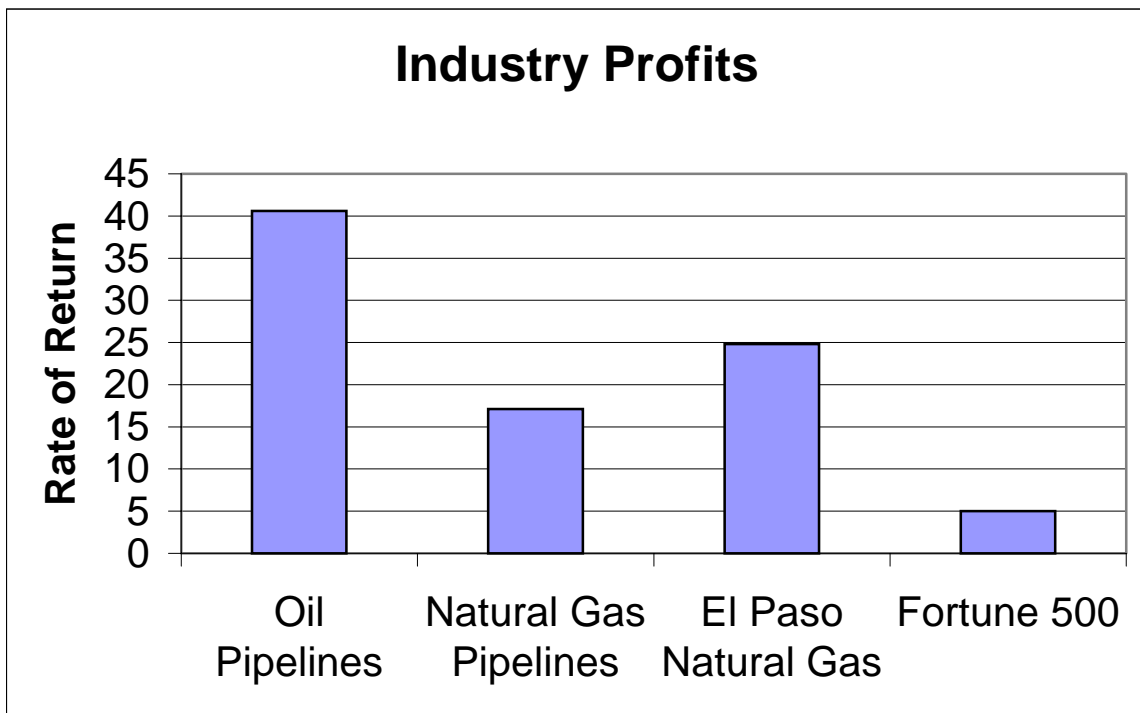
²⁰ Ibid.

²¹ Notice for Pipeline Safety Hearing, Nov. 15 and 16th, 2000: http://www.nts.gov/events/2000/pipeline_hearing/default.htm.

Pipeline Industry Profits While Safety Suffers

According to the Oil & Gas Journal's annual report, 1999 was a record year for interstate oil pipelines – bringing in \$2.9 billion in net earnings after taxes.²² In the same year, operating revenues reached \$7.2 billion, resulting in a staggering 40.6 percent rate of profit—10 times the average Fortune 500 rate.²³ Companies could have spent \$1.5 billion more in safety improvement in 1999 and still have had a 20 percent return.²⁴

Natural gas pipeline industry earnings were also considerable, with profits averaging 17.1 percent return over the past five years. In 1999, El Paso Natural Gas had a 24.8 percent return, one year before the August 19th Carlsbad explosion.²⁵ The oil and gas industry has plenty of profits to invest in safer pipelines, but only if they are required.



²² "Pipeline Economics," Oil & Gas Journal, Sept. 4, 2000. Also, www.safebellingham.org/profits.htm.

²³ Ibid. Also, National Pipeline Reform Coalition, www.safebellingham.org/profits.htm.

²⁴ Ibid.

²⁵ Ibid.

Summary of New Mexico Legislation 2001

The New Mexico state legislature has passed three bills dealing with pipeline safety,²⁶ which were all signed and are effective starting July 1, 2001.

House Bill 279 – Dealt with rules for safety of intrastate pipelines. This bill, introduced by Representative Heaton (D-Carlsbad), requires the state to follow and establish rules regarding internal and external surveillance and installation of emergency flow restricting devices for pipelines as may be required by federal law. It also adds hazardous liquids to the range of liquid pipelines regulated.

House Bill 587 – This bill, introduced by Representative Martinez (D-Grants), strengthens and clarifies the penalties and provisions for damage to pipelines from excavation.

House Joint Memorial 60 and Senate Memorial 12 – These memorials, introduced by Representative Madalena (D-Jemez) and Senator Leavell (R-Jal), directed the federal government to review and strengthen requirements for inspection and maintenance of all pipelines.

While these bills indicate a willingness on the part of the state to improve pipeline safety, they do not go far enough to fully protect the health and safety of New Mexicans. The House and Senate Memorials emphasize policymakers' desire to have the federal government improve safety standards. However, as noted previously, statistics show both the federal government and the Office of Pipeline Safety have been slow and unresponsive in adopting safety regulations. As the next chapter will illustrate in the case study of the Bellingham explosion and Washington State's response, there are more actions New Mexico can and should be taking to improve the safety of our vast network of pipelines. In fact, the New Mexico Public Regulation Commission recently ordered a pipeline safety review and study to be completed in September 2001. This provides an opportunity to study what other states have done and what additional steps New Mexico should take to improve pipeline safety.

²⁶ For more information on these bills see www.legis.state.nm.us, under "bill finder."

III. Case Study: The Bellingham Tragedy

Background

The Olympic Pipeline, near interstate 5, runs North-South from the Canadian border to Oregon through the most populous areas of Washington State. On June 10, 1999, in Bellingham, Washington, the pipeline ruptured pouring gasoline into the environment. Downstream, two ten-year-old boys played in a park near Whatcom Creek, a neighborhood park. Playing with a lighter, they unknowingly ignited the accumulated gas into a fireball, which ripped along the creek, killing the boys and an 18-year-old man before stopping short of the middle of the city. The explosion also destroyed all life in Whatcom Creek, including fish, plants and trees, and spilled over 250,000 gallons of oil into the creek and surrounding environment. Had the boys not ignited the gas at Whatcom Creek Park, the gasoline would have continued its westerly downstream flow toward downtown Bellingham and reached the city's bus barn, senior condominiums and the county courthouse. The Mayor of Bellingham called the victims "unwitting heroes," since the accident could have caused significantly greater loss of life.²⁷

Later, Equilon Pipeline Company, owner and operator of the Olympic Pipeline, was notified of probable violation of OPS's regulations, including violation of the damage prevention program; general operating requirements; training; procedures for operation, maintenance and emergencies; pumping equipment; documentation and review of abnormal events; and maintenance of maps and records.²⁸ Currently, the assessed civil penalty for Equilon Pipeline Company totals over \$3 million. This fine was levied in June 2000, but the Office of Pipeline Safety has yet to collect it.

Response by state and local officials

Citizens and public officials in Washington were extremely concerned about the potential for other accidents on this and other pipelines in the state. The Governor of Washington ordered an independent task force to examine the issue of pipeline safety. As task force member and Bellingham Mayor Mark Asmundson stated, "Unless the basic system of requirements of the system that regulate the pipelines are increased nationwide, these kinds of accidents are going to happen again somewhere else."²⁹ They developed several initiatives to improve safety.

"Unless the basic system of requirements of the system that regulate the pipelines are increased nationwide, these kinds of accidents are going to happen again somewhere else." Bellingham Mayor Mark Asmundson

Among their recommendations were:³⁰

²⁷ "Boys Who Died Were 'Unwitting Heroes' in Pipeline Fire," Seattle-Post Intelligencer, June 18, 1999

²⁸ "Notice of Probable Violation and Proposed Civil Penalty," CPF No. 5-2000-5013, June 2000.

²⁹ Quote on opening page at: www.safebellingham.org.

- **Federal Level:** 1) Eliminate federal preemption, allowing states to set more stringent standards; 2) Increase funding for research and development and grants to states.
- **State Level:** 1) Establish pipeline operator fee for expanded program of pipeline safety and improved response capability; 2) Coordinate information and technical review with local and statewide authorities; 3) Coordinate and develop emergency response and public education; 4) Establish sufficient fines, GIS-based maps and recommendations for setbacks in environmentally sensitive areas and population centers; 5) Establish a formal mechanism for meaningful local government and citizen participation; 6) Evaluate preparedness of local first responders through State Fire Marshal’s Office; 7) Improve public safety through adoption of stronger regulations for new and existing pipelines; 8) Reform state’s energy facility siting process and One-Call Notification system.
- **Local Level:** 1) Improve pipeline preparedness through planning, training, equipment purchases and public education; 2) Establish public alert notification and public response; 3) Conduct land use planning that includes topographical, land use and zoning mapping of pipeline rights-of-way and spillway of runoff paths.
- **Pipeline Operators:** 1) Conduct emergency practice drills cooperatively with local agencies responsible for emergency response; 2) Provide response planning and program development for local communities such as “Neighborhood Emergency Team” programs; 3) Allocate and manage local stockpiles of supplies and resources necessary for first response agencies to initiate command and control functions.
- **Technical Recommendations**
 - **Pipeline Testing** – 1) Require pipeline operators to submit comprehensive reports on condition of transmission pipelines at least once every four years for pipelines less than 15 years old and up to annually for older pipelines; 2) Require appropriate testing and apply requirements more rigorously in sensitive and populated areas; 3) Require hydrostatic testing, smart pigs³¹, etc. if report reveals significant areas of concern and when necessary recondition the line or remove the pipeline from service; 4) Establish contingency plan for abandonment of pipelines that do not meet federal regulations.
 - **Rapid Detection and Isolation of Leaks** – 1) Install remote-control shut-off valves (no less than four to ten miles in urban areas and 20 to 60 in

³⁰ Governor’s Fuel Accident Prevention and Response Team, Final Report and Recommendations, December 1999. www.governor.wa.gov/taskcomm/faprt/finalreport_.htm

³¹ “Smart PIGs” are internal testing devices that run through a pipeline and determine weaknesses, cracks or indents that may cause a spill or explosion.

rural areas); 2) Install remotely monitored pressure gauges and meters at each pump station and remote valve location; 3) Establish more specific regulations for emergency response procedures combined with thorough training.

- **Contingency Planning** – 1) Set regulatory planning benchmarks for recovery of spill and minimization of damage from worst case spill for one to 48 hour response.

Many of these recommendations for improved pipeline safety have already been acted upon by the State of Washington.

Washington State Governor, Gary Locke, also ordered the Office of Pipeline Safety to provide him with a map of all interstate pipelines in Washington and an audit of when they were inspected and what steps they were taking to assure integrity. In March 2000, Governor Locke signed a bill to improve pipeline safety in Washington. Largely in response to public outcry after the Bellingham pipeline explosion, Washington's bill:

- Creates a “comprehensive program of hazardous liquid pipeline safety” by having the Utilities and Transportation Commission (UTC) adopt new regulations; give technical assistance to local governments; and inspect pipeline company records and reports.
- Establishes a citizen advisory committee to help the public, local governments and the industry work with the state on pipeline safety.
- Strengthens the program to avoid pipeline damage from excavation and digging; by setting up a single number to Call-Before-You-Dig and increasing penalties for failing to do so.

The act also gives the UTC the authority and responsibility of administering the new law. As a result of an agreement worked out with the federal Office of Pipeline Safety, the UTC has new authority to inspect interstate pipelines in Washington State.

In April 2001, Governor Locke signed another pipeline safety bill passed by the Washington state legislature to establish a permanent fund to increase pipeline inspections in the state. The bill makes pipeline companies a fee into the fund, which then pays the costs for Washington's pipeline-safety program. The Washington pipeline safety program includes a \$1.9 million annual budget, 10 local engineers to monitor the safety of all the oil and gas pipelines in the state and the safety programs of the 29 companies that operate pipelines in Washington.³²

³² “Pipeline-safety bill puts state's inspectors in control,” Rebecca Cook, The Associated Press, May 12, 2001.

Most recently, the Olympic pipeline has undergone extensive internal testing before reopening to ensure the safety of the pipeline. On May 9, 2001 during these tests, the pipeline burst and released 4,200 gallons of diesel-spotted water in a neighborhood.³³ Pipeline testing is critical, as demonstrated in this case, it uncovers weaknesses that could pose potential safety hazards. Unfortunately, this testing was only required as a condition of reopening the pipeline. Regular testing is not required, nor often performed by pipeline companies.

Washington State's extensive response to the Bellingham pipeline explosion demonstrates what additional measures can and should be taken to improve pipeline safety. New Mexico should utilize similar measures in improving its pipeline safety and protecting the public from future accidents.

³³ "Pipeline bursts, spills during a water test," Mike Lindblom and Michael Ko, The Seattle Times, May 10, 2001.

IV. Equilon Close-up: A cycle of accidents and spills

The Equilon Pipeline Company has a history of accidents and spills on the pipelines and facilities it manages. Here are some of the most recent:

1) Bellingham, WA – In June 1999, a leak from pipeline caused explosion and death of three youths. As mentioned, previously, the operator, Equilon, was charged with eight different violations and a \$3 million fine.

2) Placitas, NM – In April 1999, an Equilon pipeline released 500 barrels of crude oil on Santa Ana tribal land, less than one mile from the Rio Grande. The spill was so extensive that I-25 was closed so that the sprayed oil could be removed from the highway surface. The cause of the release was Equilon excavating its own line. The Company's own "as-built" plans did not show that a buried valve was installed where the excavation was taking place, and as a result Equilon cut its own line.³⁴

3) Anachortes, WA – On Nov. 25, 1998, an Equilon-run refinery in Anachortes, Washington exploded, killing six employees. The company agreed to pay \$4.4 million in the largest workplace-safety settlement in state history. The Department of Labor found the refinery violated numerous safety rules, but no criminal charges were filed.³⁵

V. Equilon's Proposal to Reopen an Old Pipeline

Currently, Equilon is seeking to re-open a 43-year old, 16" crude oil pipeline, which runs 406 miles from Jal, NM to Bisiti, NM.³⁶ The crude oil pipeline would be converted to take refined fuels such as natural gas, and new segments would be built to have a complete section from Odessa, TX to Bloomfield, NM. Citizens have expressed concern regarding this proposal, since most pipeline accidents in New Mexico are due to corrosion of old pipelines. Crude oil pipelines are also constructed differently than those intended to carry refined fuels or natural gas due to pressure differences exerted on the pipeline. On top of this, the old pipeline is exposed in over 20 areas and goes through high-risk areas. For example, the pipeline goes through the parking lot of the Placitas Community Center and within approximately 200 feet of the property of the Placitas Elementary School.³⁷ In addition, the ten-mile area from the Sandoval County seat to the village of Placitas has experienced three major pipeline accidents in the last four years.³⁸ While the Bureau of Land Management is requiring an Environmental Impact Statement from Equilon, it is not requiring a single EIS for a related pipeline from Bloomfield, NM to Salt Lake City, UT by Williams Pipe Line Company. This project was once a single project that was then broken into two separate proposals. However, some groups have argued that these proposals are still, in effect, one project. Thus, one EIS for the two projects should be required.

³⁴ Citizens for Safe Pipelines 11/26/2000. Background documents for the Bureau of Land Management.

³⁵ "Refinery managers hint at taking Fifth in suit over blast," Jim Brunner, Seattle Times, July 13, 2000.

³⁶ Citizens for Safe Pipelines 11/26/2000. Background documents for the Bureau of Land Management.

³⁷ Ibid.

³⁸ Ibid.

VI. Policy Recommendations

Aging infrastructure, lax safety standards, and weak oversight and enforcement have turned New Mexico's pipelines into accidents waiting to happen. Indeed, two New Mexico families have already suffered from the worst pipeline accident in 25 years. The following are our recommendations for improved pipeline safety and accountability for New Mexico and the country.

1. Prevent Pipeline Disasters

Require Better Monitoring

- Regular Integrity Testing of Pipelines – Currently, pipelines are not required to be regularly tested for cracks, corrosion or other weaknesses that lead to accidents. A regular testing cycle will allow companies to take preventative measures to fix pipelines before they leak or explode.
- Better Training and Oversight of Staff – Staff that are more knowledgeable and have better oversight will be able to detect leaks and shut them off quicker.

Require Safer Pipelines

- Require Double-Walled Pipelines – These pipelines help reduce the risk and size of accidents and are especially important in high-risk areas. These should be retrofitted on older pipelines in high-risk areas and mandatory for new pipelines.
- Require State of the Art Leak Detection System and Automatic Shut Off Valves – Technology for pipelines has improved greatly, with leak detecting cables and better materials. Unfortunately, the use of such equipment is not required.
- Dig Up and Inspect Pipelines More than 20 Years Old – Many pipelines in New Mexico are aging. These pipelines, like the one that exploded in Carlsbad, were built up to 50 years ago and are more susceptible to corrosion and deterioration.
- Require setbacks of at least 1,000 feet for high-risk areas – Many pipelines run near high population or sensitive population areas, such as schools and hospitals. Minimum setbacks for pipelines 8 inches or larger reduce the likelihood of a deadly accident.

2. Hold Pipeline Companies Responsible for Accidents

- Mandatory Fines – Fines should be large enough to deter future negligence of oil and gas companies.
- Require Strict and Thorough Reporting – Record keeping on accidents, exact pipeline location and spills should be compiled and easily available to the public.

VII. Recommended Actions

Pipelines are monitored nationally by the Office of Pipeline Safety and enforced at the state level by the Pipeline Division of the Public Regulation Commission (PRC). Here are some ways for local citizens, state and federal policy makers to get involved in improving the safety of our pipelines.

Local Citizens

- Ask fire departments or local planning boards where pipelines are located in the community.
- Request state and federal representatives to act on improving pipeline safety.
- Submit letters and comments to the PRC and other New Mexico elected officials about the need to improve pipeline safety.

State Policy Makers

While a handful of bills were passed at the state level regarding pipeline safety, these did not significantly address the risks to New Mexicans from pipelines. As the New Mexico Public Regulation Commission studies pipeline safety in the state, we hope they will utilize the recommendations in this report.

- Set up a partnership with the federal government to allow greater state involvement in pipeline inspections, as done in Washington State.
- Pass a comprehensive state mapping and record-keeping initiative to allow citizens access to pipeline information.
- Utilize methods similar to other states to improve state inspections such as a state fund.
- Include significant input from concerned citizens and the general public by setting up a citizens' advisory board.
- Given the extensive network of pipelines in New Mexico, the PRC's study should include written comments and hearings from the public in other parts of the state, not just Carlsbad, Roswell and Farmington.
- Set up a more stringent state inspection and auditing program to ensure companies are complying with requirements to monitor their cathodic protection systems and verify their integrity testing results.
- Develop a program to identify all pre-1970 low frequency electronic resistance weld pipe and closely monitor with potential for replacement in high-risk areas.

Federal Policy Makers

Currently rulemakings are underway at the Office of Pipeline Safety to review safety standards, and Congress has introduced several pieces of legislation to address pipeline safety. Unfortunately, no strong pieces of legislation or regulatory policies have been passed. Here are a few areas these bodies should address:

- Require safer pipelines with automated shut-off valves and other technical issues discussed above.
- Require frequent inspections on pipelines.
- Increase fines and enforcement actions.