CHAPTER 1

THE CROSS CASCADE PIPELINE PROJECT,
ITS NATURAL AND REGULATORY ENVIRONMENTS,
AND OUR OBJECTIONS

The Project

Olympic Pipeline Company proposes to build the Cross Cascade Pipeline 227 miles from Woodinville to Pasco to transport gasoline, diesel fuel, and aviation fuel refined in Skagit and Whatcom Counties. Olympic proposes also to build a new fuel terminal at Kittitas. Olympic is owned by Texaco, ARCO and GATX, and today operates a 400-mile products pipeline between Ferndale, WA, to Portland, OR.

Items:

- The underground pipeline would be 14 inches in diameter until it reached the proposed Kittitas storage and distribution terminal and 12 inches in diameter from there to the existing Pasco terminal. It would be in a 30-foot permanent right-of-way easement. The 14-inch diameter steel pipe would be 0.281 inches thick, the 12-inch pipe would be 0.250 inches thick, and all would be coated to prevent external corrosion. New pump stations would be built at Thrasher, North Bend, and Kittitas, and later, as needed, at Stampede, Beverly-Burke, and Othello. Maximum operating pressure would be 1,440 pound per square inch. Estimated throughput would average about 2.5 million gallons per day. (See Appendix 1-A)

- Olympic would monitor pressure and flow volumes along the proposed line with the same Supervisory Control and Data Acquisition (SCADA) system now in use on its existing pipeline to detect spills or abnormalities and initiate shutdown. There are 21 shutoff valves planned along the route. Cathodic protection devices would be used to prevent corrosion. An internal inspection device, or “smart pig,” would inspect the inside of pipe walls for problems at least every five years. Warning signs would mark the pipeline route, and Olympic proposes aerial inspection of the route every two weeks.
- The Olympic Pipeline Company is owned by Texaco Trading and Transportation Inc. (TTTI) (37.5 percent), Atlantic Richfield Company (ARCO) (37.5 percent), and GATX Terminals Inc. (25 percent). The company is operated on contract by TTTI, which would also build and operate the proposed Cross Cascade Pipeline project and Kittitas terminal. (See Appendix 1-B)

- Olympic asserts that the new pipeline is needed to serve growing demand for fuels in eastern Washington, while existing supplies from Montana and Utah are not keeping pace. It asserts that a pipeline would be a safer and more reliable means of transporting fuel from north Puget Sound refineries than existing barge and truck shipping. Olympic concluded that "not constructing the proposed pipeline will pose the risk of a significant, adverse impact on the environment . . . ."

Its Natural Environment

The project would cross much of Washington's most severe and punishing terrain and climates, complicating immensely the tasks of siting, building and operating safely. Land uses vary from urban and suburban to forests and wildlife refuges. Dangerous conditions in the area include earthquake fault lines, floods, landslides, volcanoes, erosion, heavy snows and bitter cold, and hot, dry summers with strong winds.

Items:

- The proposed pipeline would begin in the rolling uplands of the Puget Basin, cross the Cascade Mountains at Snoqualmie Pass, generally follow the bases of Cascade mountains, cross the plateau on which Ellensburg is located, cross the Columbia River below Wanapum Dam to Corfu, follow the base of the Saddle Mountains, then cross the Columbus Basin flat to Pasco, making numerous ascents as high as 2,500 feet above sea level and descents as low as 100 feet. It would involve more than 156 watercourse crossings, ranging from intermittent streams to the Columbia River, and more than 134 wetlands crossings. (See Appendix 1-C)
• The route would cross Snohomish, King, Kittitas, Grant, Adams, and Franklin counties, as well as the cities of Snoqualmie, North Bend, Kittitas (pending the outcome of an annexation), and Pasco, including federal lands managed by the Forest Service, Bonneville Power Administration, Bureau of Reclamation, Fish and Wildlife Service, and Bureau of Land Management. Olympic states that 96 miles of the route would be on or next to existing corridors, such as power line, roads and rail rights-of-way, as well as the Cedar Falls Trail, and asserts this would minimize disturbance of forest and other natural areas.

Its Regulatory Environment

The State of Washington approval process for the Site Certification Agreement will consider environmental impact of its construction and operation, mitigation measures, land-use impacts, public safety hazards, economic need, and alternatives.

Items:

• For its first 40 miles, it would cross numerous urban, suburban, and rural residential areas in Snohomish and King counties, and cross the City of Seattle’s Tolt River [water] Pipeline. It would cross or align with such recreation and conservation areas as the Cedar Falls Trail, Twin Falls State park, John Wayne Trail, Olallie State Park, Mt. Baker-Snoqualmie National Forest, (built on the floor of!) the Snoqualmie Pass Railroad Tunnel, Wenatchee National Forest, Yakima Training Center, the Columbia Basin Habitat Management Area, Crab Creek Wildlife Area, and the Bailey Boys Ranch, the Echo Falls Country Club, Mount Si Golf Course, aquifers, and salmon streams, as well as privately-owned forest and agricultural land.

• The construction and operation of the Cross Cascade Pipeline would be regulated by standards enforced by the federal Office of Pipeline Safety (OPS), as part of the interstate Olympic Pipeline system. The federal Pipeline Safety Act preempts state and local governments from imposing any standards on interstate petroleum pipelines more stringent than federal standards. The State of Washington has
received certification by the OPS to enforce federal standards for intrastate petroleum pipelines but has not yet adopted these standards or otherwise established a program; however, this would not affect an interstate pipeline. (See Appendix 1-D)

- The routing of the proposed pipeline, however, is subject to approval of a Site Certification Agreement by the Washington Energy Facility Site Evaluation Council, and federal and other state agencies, local governments, and other interested parties can participate in these proceedings. Its route would also need approval by numerous federal agencies (but not OPS, which has no role in routing), such as the U.S. Forest Service (acting under the National Environmental Policy Act), Army Corps of Engineers, Bureau of Land Management, and others.

Our Objections

In an outline form, we offer our concerns and objections about the proposed Cross Cascade Pipeline project:

- There is no economic necessity for the project, other than Olympic’s corporate interests. The Tri-Cities area already enjoys ample supplies and competitive fuel prices, and existing sources are fully capable of meeting future demand. Yellowstone Pipeline Company continues to ship around the idled section of its pipeline from Montana and is making plans for a new pipeline routing. Two active proposals for a Canadian crude oil line to supply Montana and Utah refineries suggest sufficient refined products will be available from them.

- Olympic’s plans would mean a sharp increase of crude oil shipping in Puget Sound and refinery output there. Its plans for a maximum throughput on the Cross Cascade line of 7,500 barrels per hour would increase shipments of its products from Puget Sound refineries by 70 percent and, were a second line added to the route, by 140 percent – with accompanying increases in crude oil tanker shipments through Puget Sound to these refineries.
• It is likely that the real purpose of the proposed Cross Cascade line is to serve markets farther east than Washington state. Olympic would thus use the new route to ship fuel to Idaho and other states, with few new benefits for Washington residents who would bear the main burden of new environmental and safety hazards.

• The project would introduce new and unacceptable hazards where they do not now exist. The route goes through some of Washington’s most fragile natural areas, including aquifers, where severe conditions such as earthquake faults and extreme weather can damage an oil pipeline and complicate leak detection and emergency response.

• Denying this application and continuing the present distribution system is far preferable. Olympic Pipeline Company has failed to prove that its proposal is superior to the current system of supplying fuel to eastern Washington by barge, truck, and two existing pipelines. The proposed new risks far outweigh the existing ones.

• Olympic has demonstrated that it cannot operate its current system without repeated spills and leaks. On its existing 400-mile pipeline, Olympic has had 44 spills and leaks from 1968 to 1996, totaling losses of 509,559 gallons of fuel, according to OPS records. The latest reported spill was on June 17, 1996 in Everett. (See Chapter 3)

• Olympic’s spill record is consistent with the petroleum pipeline industry’s record nationwide. From 1970 to 1995, pipelines spilled nearly 288 million gallons of crude oil and petroleum products in the U.S., according to OPS records. Pipelines are twice as likely to spill as tankers and barges, after adjusting for volume and distance transported. (See Chapter 2)

• Olympic’s owners - Texaco, ARCO, and GATX - have persistent problems preventing and cleaning up spills, as well. OPS data for the past three decades reflect millions of gallons in spills from their pipelines and tank farms.
• In fact, Olympic and the pipeline companies associated with it have spilled over 29 million gallons of oil since the late 1960s - nearly one out of every 10 gallons spilled in the U.S. by all pipeline companies. (See Chapters 3-6)

• Olympic is a "virtual corporation" which contracts out virtually every important function. It has only 65 employees, four of them Texaco managers. If its numerous changes in ownership and operating contractors of recent years continue, the character and fitness of its management could be far different in the future. (See Appendices 3-A & B)

• The highly-touted pipeline construction and leak prevention and detection techniques promised for the Cross Cascade project are widely criticized for their inadequacy. Federal regulators have resisted adopting improved standards, and the industry has failed to adopt them voluntarily. (See Chapters 9, 10 & 13)

• While "third party damage" is a leading cause of pipeline accidents, three-fourths of pipeline accidents could have been prevented by operators. The more important causes are corrosion, pipe and equipment failure, operator error, and others which pipeline companies can prevent. (See Chapter 8)

• Siting a pipeline along the proposed route is inconsistent with planning and environmental principles, and critical areas regulations, meant to protect the public interest. The route violates the zoning regulations and comprehensive plans of the six counties and three cities, and is inconsistent with the purposes of the many federal and state recreation and conservation areas it traverses. (See Appendix 1-E)

• The project needlessly jeopardizes ground and surface waters. Spills from the pipeline could contaminate the Cross Valley Sole Source Aquifer, the only drinking water for over 20,000 users; many other local aquifers; the Tolt River Pipeline; Kechelus Lake, a source of irrigation water for the Yakima Valley; and other important water sources. Virtually all homeowners and farmers along the route rely on groundwater which is at risk from a leaking
underground pipeline. The proposed North Bend Pump Station would be in the flood plain of the Snoqualmie River.

• Significant leaks too small to be detected by Olympic's limited leak detection system could go unnoticed or undetected for weeks or even longer. Olympic's last two leaks were reported only after they leached oil onto the surfaces of nearby streams and were discovered by passersby.

• The remote location of much of the proposed pipeline unacceptably complicates detection and emergency response. Cleanup operations could be delayed for days because of lack of road access to spill sites. Remediation could be hampered severely.

• Olympic has ignored the need for new land-use and building code regulations to protect a pipeline where future development may take place. State and local governments should consider set-back and other restrictions along pipeline routes to reduce encroachment by residential and commercial development, which can increase the likelihood of outside damage. (See Chapter 14)

• The routing in existing corridors increases the chances for damage to pipelines and should be discouraged. Despite its attractiveness as a planning concept, co-locating underground pipelines with other linear facilities increases construction and repair activity there, reduces pipeline safety, and should be discouraged. (See Chapter 14)

• The proposed fuel terminal at Kittitas poses needless dangers. It is unwise to locate huge products terminals in small communities with no resources to protect the public and environment from contamination and fires. Kittitas has neither the firefighters, equipment, or the water and chemicals needed to put out a fire at the terminal, nor should it be expected to. (See Appendix 1-F)

• There is no federal, state or local agency to regulate the pipeline effectively. The state of Washington has no program to prevent pollution from this pipeline. Federal law preempts state and local regulation of this pipeline. Federal standards
address public safety, not environmental protection. Even these are so lax that pipelines leak and spill an average of 11 million gallons of petroleum every year. (See Chapter 12)

- **Because of federal preemption, nobody can hold the pipeline owners to any promises they make.** Neither the local government nor the state of Washington could legally enforce construction or operating standards for this pipeline. We would simply have to trust Olympic to operate more carefully than it or any other company has ever operated an oil pipeline.

- **Pending legislation in Congress, if enacted, would seriously weaken already-lax federal pipeline regulations.** Bills which have cleared committees in both houses of Congress would gut the Pipeline Safety Act and make regulatory improvements impossible. Congress has already cut OPS funding by 20 percent, and more cuts are in store. (See Chapter 11)

- **In short, it is a matter of when, not if, the pipeline and tank farm would leak petroleum into our surface water and ground water.** The claims about exceeding federal standards, lower gasoline prices, and other benefits to Washington are not true and would not outweigh this unacceptable risk.
CHAPTER 2
THE PIPELINE INDUSTRY RECORD

Statement:

Pipelines in the last 26 years have spilled or leaked almost 288 million gallons of crude oil and petroleum products in the United States. They accounted for much larger volumes than tanker ships and barges and, in fact, are twice as likely to spill. The industry ignores responsibility for this pollution - even the extent of the problem - while it enjoys extraordinary profit margins.

Items:

- From 1970 to 1995, oil pipelines spilled a total of 287,761,820 gallons of crude oil and petroleum products, or an annual average of 11,067,820 gallons, according to the Annual Report on Pipeline Safety, published by the U.S. Office of Pipeline Safety (OPS). (See Appendix 2-A)

- Because OPS does not require reports of losses of fewer than 2,100 gallons, the actual volume of oil spilled each year by pipelines is far higher. It "may be as much as 20 million to 30 million gallons each year," according to a report issued in 1993 by the Friends of the Earth, Crude Awakening: The Oil Mess in America. (See Appendix 2-B)

- A pipeline of the length proposed for the Cross Cascade Pipeline project would have at least one spill greater than 2,100 gallons every ten years, according to a 1993 report by EFA Technologies, Inc. The report also noted that the pipeline industry refuses to acknowledge its spill problems:

  The "conventional wisdom" in the industry seems to be that pipelines are safe and that concern over them is wasted. . . .
  One industry insider said his company "can always come up with ten million dollars to clean up a spill but can never find any money for prevention or mitigation." It appears the industry's assessment of
pipeline accident risk is not based on factual data.

(See Appendix 2-C)

- In comparison, from 1973 to 1992, tanker ships and barges spilled a total of 92,340,884 gallons of crude oil and petroleum products in U.S. waters, an annual average of 4,617,044 gallons, according to the Marine Environmental Protection Division, U.S. Coast Guard. (See Appendix 2-D)

- From 1984 to 1994, tanker trucks nationwide spilled 4,026,247 gallons of crude oil and petroleum products in 1,618 highway accidents, an annual average of 366,022 gallons and 147 accidents, according to the Hazardous Materials Information System, U.S. Department of Transportation. (See Appendix 2-E)

- There are no authoritative data on the annual volume of losses from aboveground and underground storage tanks.

- Adjusted for ton-miles transported (Association of Oil Pipelines data), pipelines are twice as likely as tanker ships and barges, and somewhat more likely than tanker trucks, to spill or leak crude oil and petroleum products:

<table>
<thead>
<tr>
<th>Comparative Likelihood of Spills or Leaks</th>
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<tbody>
<tr>
<td>Average Gallons</td>
</tr>
<tr>
<td>Lost per billion</td>
</tr>
<tr>
<td>Mode</td>
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<tr>
<td>Pipelines 1970-93</td>
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<tr>
<td>Ships/Barges 1973-92</td>
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<tr>
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<tr>
<td>15,272</td>
</tr>
<tr>
<td>Tanker Trucks 1984-93</td>
</tr>
<tr>
<td>13,130</td>
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</tbody>
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Other studies report similar findings:

- The General Accounting Office (GAO) in its January 29, 1991, report, Pollution From Pipelines, documented 3,910 spills in U.S. waters during the 1980s, more than one per day, based on data compiled
in the Emergency Response Notification System, U.S. Environmental Protection Agency. (See Appendix 9-F)

- Annual reports of major U.S. oil spills (10,000 gallons or more) by the Oil Spill Intelligence Report show that pipelines and storage tanks spilled more petroleum than tankers and barges in all but two years from 1978 to 1995. Its 1995 report documented 53 major U.S. pipeline spills over 10,000 gallons that year. (See Appendix 2-G)

- A report in Oil & Gas Journal of October 29, 1990, found 690 failures in Gulf of Mexico offshore oil pipelines from 1967 to 1987 and noted that the rate of failures was getting worse, not better. (See Appendix 2-H)

- A 1991 report for the Marine Board, National Research Council (NRC), counted 1,047 accidents in offshore petroleum pipelines between 1967 and 1990. They spilled an annual average of 444,570 gallons on a system of about 17,000 miles of pipe, almost all in the Gulf of Mexico. "Oil pollution in the Gulf from pipelines is roughly comparable to that from tank vessel accidents," the NRC stated. (See Appendix 2-I)

- A 1994 report by the Minerals Management Service (MMS), "Comparative Occurrence Rates for Offshore Oil Spills," found that the rate of large offshore oil spills (42,000 gallons or more) in the U.S. nearly doubled from 1964 to 1992, compared to the period 1964-87, while U.S. tanker ship spills remained steady. (See Appendix 2-J)

- Large oil spills (10,000 gallons or more) by U.S. pipelines sharply increased in the late 1980s, while similar spills by tanker ships and barges declined at comparable rates, according to a paper at the 1995 Second International Oil Spill Research and Development Forum by researchers at the consulting firm ICF Inc. The accident rate for pipeline spills was twice that of vessels from 1989 to 1993 (including the Exxon Valdez). (See Appendix 2-K)

- Pipelines were the largest source of oil spills in the Great Lakes basin during the 1980s, according to a 1991 report by the Council of Great Lakes Governors. Tanker ships and barges accounted for 14
percent and tanker trucks for one percent of oil spills during the same period. (See Appendix 2-L)

- Pipelines spilled nearly two million gallons of fuel in major accidents in Virginia 1974-94, according to a 1996 study by the City of Fredericksburg. Lax federal regulation prompted the Commonwealth of Virginia to establish its own pipeline regulatory program in 1995. (See Appendix 2-M)

- A 1989 study by the U.S. Department of Transportation, *Unregulated Potential Sources of Groundwater Contamination Involving the Transport and Storage of Liquid Fuels: Technical and Policy Issues*, described the extent of the petroleum pipeline system and, in general, the serious threat of spills and groundwater contamination. (See Appendix 2-N)

- The most thorough accounting of pipeline spills has been *Hazardous Liquid Pipeline Risk Assessment*, by the California State Fire Marshal, Pipeline Safety Division, in 1993. It found that all pipeline companies in California leaked 8,807,904 gallons of crude oil and petroleum products from 1981 to 1990 in 514 accidents, an annual average of 880,790 gallons in 51 accidents. (See Appendix 2-O)

- Compared to their shameful record of spills and leaks, oil pipeline companies maintain extraordinary profit margins. According to annual reports filed with the Federal Energy Regulatory Commission (FERC), the average net earnings of all interstate oil pipeline companies in the years 1990-94, were 28.62 percent of operating revenues. The median return on revenues by America's Fortune 500 corporations in the same years was 3.44 percent. (See Appendix 2-P)
CHAPTER 3

THE OLYMPIC PIPELINE COMPANY RECORD

Statement:

The proposed Cross Cascade Pipeline is an expansion of the Olympic Pipeline Company's existing 400-mile interstate refined products pipeline system which began operations in 1965 between Puget Sound refineries and Portland, OR. Olympic is owned by Texaco, ARCO and GATX, and operated under contract by Texaco. Accident records maintained by the Office of Pipeline Safety (OPS) show that Olympic had 44 spills from 1966 to 1996, the losses totaling 509,559 gallons of fuel.

Items:

- Olympic was incorporated in 1961 in Delaware as a stock corporation. After several changes in ownership over the years, it is now owned by Texaco Trading and Transportation Inc. (37.5 percent), Atlantic Richfield (37.5 percent), and GATX Terminals Inc. (25 percent). Olympic is operated on a contract basis by Texaco Pipeline Inc., which would also build and operate the proposed Cross Cascade Pipeline project. (See Appendix 3-A)

- For a company with such important responsibilities to operate safely a complex hazardous materials handling system, it is curiously ephemeral. Olympic has only 65 fulltime employees, four of them managers from Texaco Pipeline Inc. It contracts out virtually every important function, giving the appearance of a "virtual corporation" mutating constantly.

- Not only has its ownership changed in recent years (GATX bought its interest from British Petroleum on September 1, 1995), it has had three different operating contractors since 1989. Shell Pipe Line Corporation replaced Mobil Pipe Line Company in that year, and Texaco replaced Shell in 1991. These frequent changes in ownership and management can mean that the Olympic Pipeline Company operating the proposed project a few years from now could be
sharply different in fitness and trustworthiness. (See Appendix 3-A & B)

- The pollution record of Olympic Pipeline is not reassuring. Since 1968, it has spilled 509,559 gallons of gasoline, diesel fuel, and aviation fuel in Washington and Oregon, an annual average of 16,985 gallons, according to OPS spill data. There have been 44 accidents, or an average of 1.5 per year. (See Appendix 3-C)

- Ten of these accidents spilled more than 10,000 gallons, two of them more than 100,000 gallons, according to OPS data. Of the latter, one was a rupture of the main line on August 23, 1988 at Allen Station which spilled 168,000 gallons of diesel fuel. The other was a week later at the Allen Pump Station, where a failed pipe spilled another 136,500 gallons of diesel fuel.

- Olympic’s two most recent spills cast doubt on its spill prevention and detection effectiveness. Nearly 5,000 gallons of diesel fuel spilled from its pipeline damaged by a landslide during flooding and heavy rains on March 23, 1996, near Kalama. A pinhole in an Olympic pipeline in Everett on June 17, 1996, leaked an estimated 1,050 gallons of diesel fuel and gasoline, undetected apparently for several days. In both cases, third parties, and not Olympic’s leak detection system, discovered the leaks. (See Appendix 3-D)

- As a result, according to the Seattle Post-Intelligencer, regulators are troubled about

  ... Olympic’s inability to detect some of the smallest and slowest leaks, which over time can dump thousands of gallons of fuel into the ground if not spotted.

(See Appendix 3-E)

- An undated Washington Department of Ecology profile of Olympic noted six of its most significant spills and that it had fined Olympic $10,000 for its 1985 spill of 31,000 gallons of jet fuel into Des Moines Creek. Press reports noted that Ecology fined Olympic $7,000 for a fish kill and other damage in
Spencer Creek because of its March 23, 1996 spill near Kalama. (See Appendix 3-F)

- Various press reports and a Department of Game report describe several pipeline accidents by Olympic in 1985 and 1986. (See Appendix 3-G)

- In January, 1986, Olympic replaced leaking connections at a block valve located near Renton. Shortly afterwards, a nearby resident reported gasoline fumes in his home. Renton’s consultant, CH2MHiIl, recommended that monitoring wells be installed to determine the extent of the leak, but Olympic did nothing. Eight months later, the fuel was found seeping into the Cedar River some 1,500 feet downhill from the valve. Olympic’s consultant reported that the valve had leaked 80,000 gallons of fuel (CH2MHiIl believed it was much more), forming a plume 400 feet wide and 1,200 feet long that had contaminated the groundwater beneath the site, and that it had taken a year or more to migrate to the Cedar River.

- In disclosing its accident record, as part of its Site Certification Agreement application, Olympic reported most of the accidents contained in OPS data, but there are several discrepancies. Moreover, Olympic disclosed only those spills required to be reported by federal regulations, apparently omitting spills that did not meet federal reporting thresholds. Reviewers of the application should demand full disclosure of all of Olympic’s pipeline spills. (See Appendix 3-H)

- In its disclosure, Olympic prominently mentions “product recovered” as a significant share of lost product during its accidents. Reviewers should not be impressed. Pipeline companies routinely exaggerate recovery figures by counting oil and water mixes as oil only, and count fuel extracted from damaged pipe that was never spilled. Moreover, these are self-reported data that are never verified by OPS.
CHAPTER 4
THE TEXACO PIPELINE RECORD

Statement:

The pollution record of Texaco is an especially important indicator of the future performance of the proposed Cross Cascade Pipeline project because Texaco is both part-owner and sole operator of the Olympic Pipeline. The record is not reassuring. Not only have Texaco’s pipelines and other facilities been responsible for massive pollution, their record also includes criminal misconduct.

Items:

- Texaco Inc. is the third largest U.S. oil company, with 1995 sales of nearly $37 billion, yet is also one of the least profitable. Its net income in 1995 was $728 million, down by a third from 1994. Investors have been skeptical for several years because of low earnings and its declining domestic production. (See Appendix 4-A)

- Its U.S. pipeline operations are centered in its Texaco Trading and Transportation Inc. subsidiary, which buys, sells, stores and transports crude oil and petroleum products. It wholly owns some 15,000 miles and owns interests in another 16,000 miles of petroleum pipelines in the U.S. It owns 37.5 percent of Olympic Pipeline Co., has operated the Olympic line on contract since 1991, and is slated to build and operate the proposed the Cross Cascade Pipeline. (See Appendix 4-B)

- The U.S. pollution record of Texaco Inc. suggests serious management problems which cast doubts on Texaco’s fitness to build and operate a new pipeline on a route marked by a fragile natural environment and harsh physical conditions. For example:

  - Texaco Inc.’s 1995 Annual Report noted that it has $678 million in reserves for “future environmental remediation costs” and $804 million for the “future cost of restoring and abandoning existing oil and gas properties.” The report stated, without apparent irony,
"they will be a cost of doing business that will have to be recovered in the marketplace."

- Texaco as of May 1994 had 35 sites listed as "Superfund" sites and was potentially responsible for 93 others, according to reports in 1991 and 1994 by the Council on Economic Priorities on Texaco’s environmental policies and practices. The reports provide a broad outline of Texaco’s serious environmental problems. (See Appendix 4-C)

- Texaco pipelines spilled 10,512,438 gallons of crude oil and petroleum products in 172 accidents in the years 1968-96, according to reports compiled by the U.S. Office of Pipeline Safety (OPS); the total includes spills by Texas-New Mexico Pipeline Co. and Kaw Pipeline Co., both owned by Texaco. Many were over 100,000 gallons each, one of them 1,260,000 gallons on January 2, 1995, in Oklahoma, and another 988,428 gallons on January 24, 1989, in Texas. The 172 spills averaged a volume of 61,119 gallons for each spill. These data do not include spills and leaks that were not required to be reported because they were smaller than 2,100 gallons, or otherwise below reporting thresholds, or happened on pipelines exempt from federal regulations. (See Appendix 4-D)

- Of the 10,512,438 gallons Texaco pipelines have spilled since 1968, over one-fourth of that total, 2,752,974 gallons, has spilled in the last six years. This alone strongly suggests that Texaco’s pipeline problems are getting more serious, not less, questioning its fitness to build and operate the Cross Cascade project.

- Texaco pipeline accidents accounted for 20 of the 394 most serious U.S. pipeline spills for the years 1985-93 compiled by the Friends of the Earth in its report, Crude Awakening: The Oil Mess in America. One of the spills, of 863,268 gallons of crude oil on December 24, 1988, fouled the Gasconade, Missouri and Mississippi Rivers. (See Appendix 4-E and J)

- In 1995 alone, Texaco accounted for four of the 53 most serious U.S. oil pipeline spills compiled for
that year by the *Oil Spill Intelligence Report*. The spills totaled nearly a half-million gallons of oil. One of them, on November 24, 1995, leaked 294,000 gallons of crude oil into a creek near Lefors, TX. (See Appendix 4-F)

- Texaco has been responsible for serious toxic and hazardous waste pollution in Washington state, according to the Council on Economic Priorities. It accounted for three of Washington’s 31 leaking bulk storage tank sites in 1992, according to a Department of Ecology list. (See Appendix 4-G)

- Texaco was also responsible for one of Washington state’s largest oil spills. On February 22, 1991, a pump at a pipeline pump station at Texaco’s March Point facility blew apart and spilled 210,000 gallons of crude oil, much of it reaching Fidalgo Bay. (See Appendix 4-H)

- An article in the February, 1991, issue of Texas Monthly, “More Precious Than Oil,” details what can happen to property owners and the environment when a Texaco pipeline leaks. As the article stated,

  Oil from a broken pipeline saturated six acres of Rex Pignon’s ranch, killing the soil and grass and contaminating the [ground]water. Texaco offered $1,200 for the damage - but a cleanup would cost $9 million.

  (See Appendix 4-I)

- Because it proposes to build and operate the Kittitas terminal as part of the Cross Cascade Pipeline project, Texaco’s record in operating fuel terminals is also relevant. Texaco was responsible for 16 of the nation’s 331 most serious refinery and storage tank pollution problems in the years 1985-93, as compiled by the Friends of the Earth. (See Appendix 4-J)

- A partial review of Texaco storage tank complexes reveals a pattern of serious oil pollution problems. For example:
• Texaco and others have leaked four to 40 million gallons of fuel at a Sparks, NV, tank farm, threatening to contaminate the Truckee River, which supplies most of the drinking water for the Reno area;

• Massive contamination by Texaco and others in the Paw Creek suburb of Charlotte, NC, discovered in 1993 has been implicated in high incidences of cancer among nearby residents;

• Travis County, TX, forced Texaco and other companies to close permanently their East Austin tank farms in 1993 because chronic fuel leaks had become so severe;

• A Virginia state commission in 1992 recommended that Texaco's Star Enterprise tank farm close permanently after discovering fuel leaks seeping into basements of nearby homes that forced residents to abandon their homes;

• Texaco is one of several companies responsible for massive groundwater contamination discovered in a Spartanburg, SC, tank farm complex;

• Texaco is one of several companies responsible for similar contamination at a Greensboro, NC, tank farm; and

• Pools of gasoline up to eight feet deep were found in 1991 under Texaco and other bulk storage tanks at Port Everglades, FL, after oil company officials for years had ignored signs that problems were massive.

(See Appendix 4-K)

• Several recent instances of corporate misconduct by Texaco also undermine confidence in its fitness to build and operate the proposed pipeline project. For example:

• Texaco in 1988 plead guilty to federal criminal charges that it had falsified safety test results and paid a fine of $750,000;
- Texaco was fined $1.68 million by a federal judge in 1992 for repeatedly discharging toxic chemicals into the Delaware River during the 1980s;

- Texaco was charged by the U.S. Treasury Department in 1994 with violating economic sanctions against the military-backed government of Haiti; and

- Texaco is in litigation with native tribes of Ecuador’s Amazon region because of massive pollution from its crude oil production fields and pipelines there. (The Natural Resources Defense Council detailed the environmental destruction in its 1991 report, *Amazon Crude*.)

(See Appendix 4-L)
CHAPTER 5

THE ARCO PIPELINE RECORD

Statement:

The pollution record of the Atlantic Richfield Company (ARCO) is an important indicator of the future performance of the proposed Cross Cascade Pipeline project because ARCO is one of three owners of the Olympic Pipeline. The record is not reassuring. ARCO’s pipelines and other facilities have been responsible for massive pollution, suggesting unresolved management problems.

Items:

- ARCO is the seventh largest U.S. oil company and one of the industry’s most profitable. It 1995 sales were nearly $16.7 billion and net income nearly $1.4 billion, down by a third from 1994. It had the highest return on sales (8.2 percent) in the industry and second-highest return on stockholders’ equity. It has a major presence in Western states, especially the Alaskan North Slope; two-thirds of its proved reserves are in Alaska. However, its strategy calls for strong future expansion overseas; 40 percent of its 1996 spending on capital projects will be outside the U.S. (See Appendix 5-A)

- Much of its U.S. pipeline operations are centered in its ARCO Transportation Company subsidiary. It accounted for $193 million, or 14.0 percent, of ARCO’s consolidated earnings. While its pipeline system traditionally served its own crude oil and products, it expects future growth to be in commercial common carrier pipelines; nearly 35 percent of ARCO Transportation’s 1995 earnings came from commercial pipelines and terminals, up from 20 percent 1990. It has wholly owned the Four Corners Pipeline since 1976 and bought its 37.5 percent share of Olympic Pipeline Co. in 1991 from Shell Oil. ARCO Alaska Inc. owns ARCO’s 21.3 percent interests in the Trans Alaska Pipeline System and Alyeska Pipeline Service Company. (See Appendix 5-A & B)
• The U.S. pollution record of ARCO suggests serious management problems which cast doubts on its fitness to build and operate a new pipeline on a route marked by a fragile natural environment and harsh physical conditions. For example:

  • ARCO's 1995 Annual Report noted it has $670 million in reserves "to complete remediation of sites with known contamination," but that "it is possible that actual costs could exceed the amount accrued by as much as $700 million." ARCO also has reserves of $882 million for dismantling facilities and "restoration and reclamation of land associated with such facilities."

  • As of November 1991, ARCO had 391 listed "Superfund" sites, according a 1991 report by the Council on Economic Priorities on ARCO's environmental policies and practices. The reports provide a broad outline of Texaco's serious environmental problems. Moody's Industrial Manual (1995) reported that ARCO has 126 potential "Superfund" sites. Moody's also reports that the state of Montana has demanded $635 million from ARCO because of environmental damages by its mining and processing operations formerly owned by its Anaconda subsidiary.  

  (See Appendix 5-C)

  • ARCO pipelines spilled nearly five million gallons of crude oil and petroleum products in 274 accidents in the years 1969-96, according to reports compiled by the U.S. Office of Pipeline Safety (OPS). These data do not include spills and leaks that were under required reporting thresholds or happened on pipelines exempt from federal regulations. (See Appendix 5-D)

  • Lest reviewers think that these spills happened only in the distant past, Oil Spill Intelligence Report (OSIR) described an ARCO Pipeline Co. spill of an estimated 19,000 gallons of crude oil in Long Beach, CA, on July 29, 1996. The OSIR reported also that on July 31, 1996, ARCO paid $2.5 million to the U.S. Justice Department in a consent decree over a 1993 spill in Indiana. (See Appendix 5-E)
• ARCO pipeline accidents accounted for 15 of the 394 most serious U.S. pipeline spills for the years 1985-93 compiled by the Friends of the Earth in its report, *Crude Awakening: The Oil Mess in America.* One of the spills, of 260,400 gallons of crude oil at Bakersfield, CA, on April 6, 1993, flowed onto Interstate Highway 5 and into a creek; the cause was a cracked pipe. (See Appendix 5-F)

• The Northridge, CA, earthquake on January 17, 1994, severely damaged ARCO's Four Corners pipeline, causing eight spills between Mission Hills and Santa Clarita totaling 224,280 gallons of crude oil. Oil spilled at Mission Hills flowed into streets and caught fire, injuring a motorcyclist, destroying one home and damaging four others. The spill in Santa Clarita poured 173,000 gallons of crude oil into the Santa Clara River, polluting it for 12 miles. All eight spills were due to weak pipeline welds, according to a California State Fire Marshal report. (See Appendix 5-G)

• ARCO has been responsible for serious toxic and hazardous waste pollution in Washington state, according to the Council on Economic Priorities. Its Seattle tank farm has reported groundwater and soil contamination, according to the Washington Department of Ecology. (See Appendix 5-H)

• Protracted legal maneuvers by ARCO delayed cleanup for years of contamination of sites in Pennsylvania and California, according to press reports and the Friends of the Earth. An estimated 3.6 million gallons of oil has collected in underground plumes up to 10 feet deep beneath ARCO's former South Philadelphia refinery operations. ARCO has aggressively opposed federal plans that it clean up a landfill contaminated by aviation-fuel byproducts in Fullerton, CA, claiming that it was ordered to dump those wastes by the Department of Defense. ARCO was also partly responsible for massive groundwater contamination at Los Angeles International Airport. (See Appendix 5-I)

• ARCO Alaska Inc. has been responsible for extensive environmental damage in its oil activities along the
Alaskan North Slope, according to several reports.
(See Appendix 5-J)

- Because of its partial ownership and active involvement in the Trans-Alaska Pipeline System (TAPS) and Alyeska Pipeline Services Company, ARCO Alaska Inc. bears much of the responsibility for this deeply troubled system. For example:

  - Alyeska’s inspection of the TAPS in 1990 found extensive corrosion along the 800-mile line, only 13 years after its construction;

  - Safety surveillance and inspections, including that of 1990, were so poor that doubts continue today about the pipeline’s reliability, despite massive repairs;

  - By late 1995, because of poor management of repairs, doubts had grown about the thoroughness of Alyeska’s two-year, $300 million repair program;

  - Congressional investigations in 1993 found that top executive at Alyeska had authorized illegal spying and harassment of outside critics of its performance, and had tolerated intimidation of employees who found safety problems and forgeries by managers of safety records;

  - Alyeska and Wackenhut Corp. in 1993 agreed to a multimillion dollar settlement of an invasion-of-privacy lawsuit filed by its most prominent critic, Gary Hamel; and

  - The General Accounting Office (GAO) found in 1991 that federal and state regulators had failed to monitor Alyeska’s spill prevention and detection measures, or even participate in its emergency response drills, relying instead on Alyeska’s assurances that it had taken all necessary measures.

(See Appendix 5-K)
• Given the similar fragile environment, remote location, and harsh conditions in which much of the Cross Cascade Pipeline would be built, the experience of the TAPS and Alyeska is a strong lesson in what can go wrong.
CHAPTER 6
THE GATX PIPELINE RECORD

Statement:

The GATX Terminal Corp. owns 25 percent of Olympic Pipeline Company. Because of this, GATX’s environmental record can help judge the future performance of the Cross Cascade Pipeline project. Despite the relatively small scale of its pipeline operations, GATX has compiled a shocking record of accidents and spills. The 1989 explosion in San Bernardino, CA, of its Calnev Pipeline devastated a residential area, killed two residents, and injured 31. Since 1968, the three relative short pipelines owned by GATX have spilled a total of 2,044,728 gallons of refined products in 67 accidents, according to federal data.

Items:

- The GATX Corp. of Chicago is a holding company with interests in railroad freight equipment leasing, real estate, shipping, warehousing fuel terminals and pipelines, and capital asset financing. Its consolidated revenues in 1995 were $1.233 billion and net income $101 million. It has gone through extensive restructuring in the past decade, both buying and selling numerous operations, especially in its GATX Terminals Corp. subsidiary, which owns pipelines and tank farms. GATX pipelines include Olympic, Calnev, and Central Florida Pipeline Company; it sold its interest in Wyco in 1995. (See Appendix 6-A)

- Its publicly-released financial reports do not show the profitability of GATX’s pipelines, only GATX Terminals Corp., reflecting mostly tank farm operations. However, the Federal Energy Regulatory Commission requires annual reports of financial results by interstate pipeline companies. These show that in 1993 Calnev Pipe Line Company earned $5.6 million on revenues of $24.8 million, and Wyco Pipeline Company earned $6.1 million on revenues of $11.6 million, or a combined return of 32 percent of revenues. (See Appendix 6-B)
• The tragic explosion of the Calnev pipeline in San Bernardino, CA, on May 25, 1989, shows what can go wrong - and has - on a GATX pipeline. The Calnev line transports fuel from Los Angeles to Las Vegas. Thirteen days after being damaged by a train derailment, the line ruptured, spewing 394,800 gallons of gasoline into the air. The fuel exploded in a neighborhood of modest homes. It killed two residents, their bodies burned beyond recognition, and injured 31 others, six seriously. It destroyed 11 homes, damaged four others, and forced 1,000 to evacuate their homes. (See Appendix 6-C)

• The cause of this tragedy was GATX's negligence. After the train accident and cleanup damaged its line, GATX returned to normal operations without adequately inspecting and repairing it. Also, the National Transportation Safety Board (NTSB) reported that faulty check valves failed when the pipe ruptured, releasing more gasoline; the valves had deteriorated and GATX had not inspected them since installing them in 1970. Not only that, GATX dispatchers misinterpreted the warnings when the pipe ruptured, and continued to try to restart the pumps, relenting only when one of them looked out the window and saw smoke billowing from the neighborhood. (See Appendix 6-D)

• The Calnev disaster shows the ineffective regulation of pipelines, even when a state program exists. Both the federal Office of Pipeline Safety (OPS) and California State Fire Marshal failed to require adequate inspection and repairs of the pipeline after the train derailment. They overrode concerns of City of San Bernardino officials and residents. (See Appendix 6-E)

• It also showed that local governments are powerless to require pipeline companies to maintain and operate safely in their jurisdictions, or even to participate in accident investigations and administrative proceedings - even after such a horrendous accident. In Congressional testimony, San Bernardino city attorney James Penman described how the city was powerless to postpone resumed operation of the pipeline after the train derailment. Had regulators and GATX heeded city concerns, they could have prevented the accident.
Instead, they acted as if safety were secondary. Penman stated,

It was obvious to [us] making the efforts to protect our citizens that the sole motivation of the Office of Pipeline Safety... was to get that pipeline moving, get that oil flowing, get the pipeline back into operation as quickly as possible to get that oil flowing...

(See Appendix 6-F)

- Even after the explosion, the city was unable to require GATX to postpone resumed operations or to relocate the pipeline away from residential areas. At GATX's urging, a federal judge overrode the city's attempts and authorized GATX to move its pipeline three feet closer to the destroyed neighborhood. (See Appendix 6-G)

- In response at the same Congressional hearing, GATX Terminals Corp. president Robert Claypoole expressed "deep regret" for the explosion. His defense was that the action GATX took before and after the accidents met all federal and state requirements. (See Appendix 6-H)

- An article in the October 22, 1990, New Yorker detailed the corporate and regulatory neglect that caused the Calnev disaster, as well as the human toll. In the article, then-OPS director George Tenley stated that his duty was to keep pipelines in operation,

  I mean, the pipeline is there to move energy, and a lot of this is based on—they've got to keep that line going, got to meet demand in Las Vegas.

(See Appendix 6-I)

- In following up, the OPS ignored the NTSB findings that GATX was at fault for carelessly inspecting and restarting the pipeline — causing an accident that killed two people and devastated a neighborhood. Instead, it attributed the accident to "third-party damage" and took no enforcement action against GATX.
In its Annual Report on Pipeline Safety, the OPS wrote, “Case Closed by Region.” (See Appendix 6-J)

- GATX Corp. is partly or wholly responsible for cleaning up 11 “Superfund” toxic waste sites around the nation, according to the GATX’s 1995 annual report. It disclosed a reserve of $94 million “to remediate its environmental conditions.” The annual report also stated that “expenditures may be higher than the estimates, forecasts, and assessments of potential environmental costs provided below.” (See Appendix 6-K)

- GATX pipelines spilled 2,044,728 gallons of refined petroleum products in 67 accidents in the years 1968-96, an average of 30,518 gallons per spill, according to reports compiled by the U.S. Office of Pipeline Safety (OPS). The total includes spills by Calnev Pipeline Co., Wyco Pipeline Co., and Central Florida Pipeline Co., all owned and operated by GATX. These data do not include spills and leaks that were not required to be reported because they were under reporting threshold requirements or happened on pipelines exempt from federal regulations. (See Appendix 6-L)

- Operating as the Central Florida Pipeline Company between Tampa and Orlando, GATX accounted for 14 reported spills from 1984 to 1994 on a line only 85 miles long; four were reported to OPS, the rest to the Florida Department of Environmental Protection (DEP) only. Most of those accidents were avoidable. (See Appendix 6-M)

- Analysis of these Florida spills reveals a pattern of, at best, careless management by GATX, belying its frequent claim that the cause of most of its pipeline accidents are unforeseen, unavoidable acts of “outside damage” by third parties. For example:

  - Corrosion and operator error caused most accidents for which a cause was reported.

  - Of the five accidents reported as “outside damage”:

    - One was caused by GATX’s own contractor who struck a valve mistakenly placed on a
pipe (January 30, 1992), suggesting careless supervision by GATX;

- Two were caused by cable and telephone companies sharing the right-of-way (April 10 and 12, 1984), suggesting poor management of crowded rights-of-way and underscoring the greater likelihood of spills when pipelines are co-located with other linear facilities;

- One was caused by a warehouse owner whose building was built dangerously close to the pipeline (September 27, 1991), suggesting lack of protection of right-of-way integrity by GATX; and

- In reporting the remaining accident (March 12, 1993), GATX offered no explanation about the origin of a pinhole leak but stated anyway that it was “damage by others.”

- Three accidents (June, 1984; December 4, 1985; and March 26, 1990) involved GATX’s failure to clean up contamination caused by those spills and required enforcement actions by Florida DEP.

- Contradicting its promises to assume all liability and cleanup costs caused by its pipeline, following its 1985 Lake Alfred spill, GATX tried to divert responsibility for contamination of the shallow aquifer by blaming an adjacent company, delaying final cleanup by years.

- The accident in west Lakeland on April 27, 1992, happened a month after GATX had inspected its corroded pipeline there and found no corrosion.

(See Appendix 6-M & N)
CHAPTER 7

THE COLONIAL PIPELINE RECORD

Statement:

Because Texaco and ARCO are part owners of the Colonial Pipeline Company, its record provides additional insights into their stewardship of the proposed Cross Cascade Pipeline project. Colonial Pipeline is a deeply troubled company, with one of the worst environmental records in the industry. The nation’s largest shipper of refined petroleum products, its massive spills and mismanagement of its aging pipelines in recent years have drawn increasing attention from state and federal agencies. Despite this record, however, Colonial has been richly profitable for the 10 major oil companies which own it.

Items:

- Colonial Pipeline Company is a joint venture of 10 major oil companies (Texaco owns 14.27 percent and ARCO owns 1.58 percent) and began operations in 1963. With trunk lines that extend from Houston to New York harbor, its 5,317 miles of pipelines deliver most of the refined products consumed in the eastern U.S. (See Appendix 7-A)

- Colonial has spilled 8,536,038 gallons of refined petroleum products in 186 spills reported to the Office of Pipeline Safety (OPS) since 1968. The total does not include a million-gallon spill on June 27, 1996, near Greenville, SC. Records are not available for spills reported between then and 1963, when Colonial began operations. Reliable records are not available for spills that were reported to state agencies but not OPS. Anecdotal data suggest that there have been many hundreds of such spills. (See Appendix 7-B)

- In the past five years alone, Colonial has spilled nearly over three million gallons in over 60 accidents reported to OPS. Most of this volume resulted from four huge spills:
• 550,200 gallons of fuel oil near Greenville, SC, on December 19, 1991;

• 408,000 gallons of diesel fuel near Reston, VA, on March 28, 1993;

• 1.2 million gallons of gasoline and diesel fuel near Houston, TX, on October 20, 1994; and

• 1 million gallons of diesel fuel near Greenville, SC, on June 27, 1996.

See Appendix 7-C)

• While Colonial executives routinely blame third-party damage and hold themselves blameless, their reports to OPS and other sources show that the great majority were caused by improper construction, unsafe operating practices, failure to detect and repair flaws, inadequate shutoff valves, failure to detect leaks immediately, and other mismanagement.

• Alarmed by huge spills in 1991 and 1993, the National Transportation Safety Board (NTSB) launched a special investigation and found that Colonial’s record for 1992-94 was higher per pipeline mile and volume released than the median and average record of the nation’s 14 largest pipeline companies. (See Appendix 7-D)

• Following the June spill in Greenville, the OPS on July 31, 1996, issued a “hazardous facility order” that declared its entire trunk line from Pasadena, TX, to Linden, NJ, “hazardous to life and property.” It directs Colonial to inspect and replace pipe that has been flawed since it was installed in 1963. (See Appendix 7-E)

• Colonial has a record of multiple accidents at virtually the same location. The June 27, 1996, spill near Greenville, SC, was the fourth there since 1979. Colonial has polluted the Rapahannock River in 1980 and 1989, fouling the water supply of Fredericksburg, VA, both times. (Note that the spill effects lasted for years, and the City of Fredericksburg is still seeking replacement of cracked pipe by Colonial.) (See Appendix 7-F)
• Colonial often fails to detect leaks in a timely way or clean up adequately afterwards. Leaks in 1991, 1993, and 1996 described here are but a few example of these recurring failures. (See Appendix 7-G)

• Despite this alarming record, Colonial has been hugely profitable in recent years, according to its U.S. Corporation Income Tax Returns for 1989-93. These show that Colonial had net income after taxes totaling $791,668,487 in those five years on total sales of $2,640,216,509 – a return on sales of 30 percent. (See Appendix 7-H)

• The early history of Colonial includes the criminal conviction in federal court in 1969 of its president, a vice president, and the company for bribery of Woodbridge Township officials to gain approval for building an oil storage tank complex. (See Appendix 7-I)
CHAPTER 8

CAUSES OF PIPELINE ACCIDENTS

Statement:

The pipeline industry claims that third-party damage is the leading cause of accidents, implying that operators have no control over such accidents and that the fault lies elsewhere. However, accident data show that third-party damage causes fewer than 20 to 25 percent of all petroleum pipeline accidents, that companies could prevent many of these, and that the vast majority are caused by corrosion, improper operation, and other factors within their control.

Items:

- Pipeline companies routinely exaggerate the role of outside force, or third-party damage. They routinely blame someone else, preferring instead to promote new laws and public relations campaigns to promote "one-call" systems, an 800-telephone number for excavators to call before digging, and thereby avoid damaging a buried line.

- At least three out of four pipeline accidents are caused by the companies themselves and could have been prevented by simple precautions. Data from U.S. Office of Pipeline Safety (OPS) hazardous liquid pipeline accident reports show this clearly:

<table>
<thead>
<tr>
<th>Cause</th>
<th>Accidents 1987-94</th>
<th>Percentage of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Corrosion</td>
<td>86</td>
<td>5.2</td>
</tr>
<tr>
<td>External Corrosion</td>
<td>327</td>
<td>19.7</td>
</tr>
<tr>
<td>Defective Weld</td>
<td>65</td>
<td>3.9</td>
</tr>
<tr>
<td>Incorrect Operation</td>
<td>92</td>
<td>5.5</td>
</tr>
<tr>
<td>Defective Pipe</td>
<td>95</td>
<td>5.7</td>
</tr>
<tr>
<td>Outside Damage</td>
<td>407</td>
<td>24.5</td>
</tr>
<tr>
<td>Equipment Malfunction</td>
<td>88</td>
<td>5.3</td>
</tr>
<tr>
<td>Other</td>
<td>498</td>
<td>30.0</td>
</tr>
<tr>
<td>All Causes</td>
<td>1,658</td>
<td>100.0</td>
</tr>
</tbody>
</table>

(See Appendix 8-A)
A Battelle Memorial Laboratory study showed an even smaller role for outside force damage, although the data were for one year only. Adjusting OPS data by mile-years, Battelle found that outside damage accounted for only 18 percent of the accidents per mile-year, while operational error accounted for nearly half. The 1992 data show:

**CAUSES OF PIPELINE ACCIDENTS, ADJUSTED**

<table>
<thead>
<tr>
<th>Cause</th>
<th>Accidents</th>
<th>1,000 mi-yr</th>
<th>Percnt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material</td>
<td>36</td>
<td>0.212</td>
<td>16.1</td>
</tr>
<tr>
<td>Construction Defects</td>
<td>101</td>
<td>0.596</td>
<td>45.3</td>
</tr>
<tr>
<td>Operational Error</td>
<td>45</td>
<td>0.265</td>
<td>20.2</td>
</tr>
<tr>
<td>External and Internal Corrosion</td>
<td>41</td>
<td>0.242</td>
<td>18.4</td>
</tr>
</tbody>
</table>

(See Appendix 8-B)

The Hazardous Liquid Pipeline Risk Assessment report by the California State Fire Marshal surveyed pipelines incidents in that state from 1981 to 1990 and confirmed the relatively secondary role of third-party damage. It found that 58.75 percent were caused by external corrosion, while third-party damage accounted for only 20.42 percent.

**CAUSES OF PIPELINE ACCIDENTS IN CALIFORNIA**

<table>
<thead>
<tr>
<th>Cause</th>
<th>Incidents</th>
<th>1980-89</th>
<th>Accidents per 1,000 mi-yr</th>
<th>Percnt</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Corrosion</td>
<td>302</td>
<td>4.18</td>
<td>58.75</td>
<td></td>
</tr>
<tr>
<td>Internal Corrosion</td>
<td>14</td>
<td>0.19</td>
<td>2.72</td>
<td></td>
</tr>
<tr>
<td>Third-Party Damage</td>
<td>105</td>
<td>1.46</td>
<td>0.42</td>
<td></td>
</tr>
<tr>
<td>Human Operating Error</td>
<td>8</td>
<td>0.11</td>
<td>1.56</td>
<td></td>
</tr>
<tr>
<td>Design Flaw</td>
<td>2</td>
<td>0.03</td>
<td>0.39</td>
<td></td>
</tr>
<tr>
<td>Equipment Malfunction</td>
<td>27</td>
<td>0.37</td>
<td>5.25</td>
<td></td>
</tr>
<tr>
<td>Maintenance</td>
<td>5</td>
<td>0.07</td>
<td>0.97</td>
<td></td>
</tr>
<tr>
<td>Weld Failure</td>
<td>19</td>
<td>0.26</td>
<td>3.70</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>25</td>
<td>0.35</td>
<td>4.86</td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td>7</td>
<td>0.10</td>
<td>1.36</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>514</td>
<td>7.12</td>
<td>100.00</td>
<td></td>
</tr>
</tbody>
</table>

(See Appendix 8-C)
• A 1993 study by EFA Technologies, Inc. studied accidents reported to OPS from 1982 to 1992 and came to similar conclusions. (See Appendix 8-D)

• In 62 percent of the accidents reported due to outside damage, the location of the pipeline had not been marked by the pipeline company, according to a 1996 report by the National Transportation Safety Board (NTSB). Outside damage caused only 28 percent of the accidents reported to OPS from 1986 to 1994, according to the report. The NTSB report, however, sharply criticized OPS data, stating that,

  ... the data on hazardous liquid pipelines, as they are currently collected and reported, are not sufficient for [OPS] to perform an effective accident trend analysis or to properly evaluate operator performance.

  (See Appendix 8-E)

• A 1989 study by the U.S. Department of Energy came to similar results. It found that in the three years 1984-86, outside damage accounted for 29.1 percent of the number of spills and 27.2 percent of the volume spilled. (See Appendix 8-F)

• These five studies suggest that improved maintenance, materials, inspection, operator error reduction, leak detection and prevention, and corrosion control are far more important for reducing pipeline accidents - yet receive little attention from industry or government regulators.

• Reviewers of pipeline accident data should note that "outside damage" is not the same as "third-party damage." Outside damage is simply damage done to the outside of a pipeline; the company's employees or contractors often cause such damage. So too do employees or contractors of other linear facilities (such as railroads or natural gas pipelines) sharing a right-of-way with a petroleum pipeline. The careless backhoe operator or other person unrelated to pipeline or other linear facilities is thus a lesser cause of outside damage, or even third-party damage, than generally acknowledged.
CHAPTER 9

INADEQUATE LEAK PREVENTION

Statement:

The petroleum pipeline industry, including Olympic and its owners, have done a poor job of preventing leaks; witness the huge spills that occur regularly. Leak prevention measures in wide use today provide little protection to the public or environment. There is little economic or regulatory incentive to adopt new, more effective measures. The problem will be even worse as the nation's system of pipelines ages and deteriorates further.

Items:

- Improved leak prevention will be even more important in the future because existing pipelines are aging and deteriorating. U.S. Secretary of Transportation Federico Pena cited industry challenges in 1994, including, "The vast bulk of the pipeline system, for example, was constructed decades ago. Large segments of it are aging." (See Appendix 9-A)

- The National Research Council voiced a similar concern that much of the nation's 20,000-mile offshore pipeline system "has remained in use beyond its originally intended use," in a 1994 report, Improving the Safety of Marine Pipelines. It stated,

  About one-fourth of the pipeline mileage in the federal waters of the outer continental shelf is more than 20 years old, and the average age is rising steadily . . . Pipelines in state waters are even older, with some dating from the early 1950s, when offshore pipeline construction began.

  (See Appendix 9-B)

- However, leak prevention measures in wide use are ineffective, and there are no federal requirements to improve them. Because of federal preemption, oil
pipelines in Florida would be subject only to lax federal standards. For example:

- There is no federal regulation that requires replacement of old pipe. Pipe here could remain in place 100 years or more, if companies chose. In fact, the regulations allow companies to build low-pressure lines with dented, cracked, rusted, used pipe if they want to. The rolled and electric resistance welded (ERW) steel pipe commonly used can rupture along its lengthwise seam, under certain conditions. Other problems that have plagued the pipeline industry include "railroad fatigue," tiny cracks caused by improper stacking of the pipes on rail cars for transporting during construction of a pipeline. (See Appendix 9-C)

- Increased pipe thickness can reduce the chances that outside damage, corrosion, or other causes will result in a rupture or leak. However, OPS pipeline regulations permit the thinnest pipe wall thickness of any major national piping codes. In fact, federal standards require thicker steel pipe for high-pressure water pipelines (0.485 inches) than for high-pressure petroleum pipelines (0.337 inches). (See Appendix 9-D)

- Protective pipe coatings are commonly used to protect bare steel from outside corrosion. Federal regulations require coatings on new lines but do not specify what types. Protective coatings are mostly asphalt or coal tar, applied at the mill or during construction of the line. However, even when coatings are applied, incorrect application, inferior coating materials, or damage during pipeline construction or by third parties can create defects and defeat their effectiveness. (See Appendix 9-E)

- Because improper construction of pipelines can create long-undetected defects, scrupulously-observed construction methods and close supervision are vital. Pipeline companies typically hire independent contractors for every phase of construction. Proper welding of pipe lengths together is crucial, because welds
can be particularly vulnerable to corrosion or failure. However, federal regulations require X-ray test of only one out of every 10 welds during construction. Afterward, these defects can be impossible to detect until the fuel they dribble reaches the groundwater or surface. (See Appendix 9-F)

- **Proper laying** is also crucial, with the pipe resting on soft earth or other padding and covered by similar material. A pipe resting on large rocks or other sharp objects can become dented and scraped as the pipe vibrates during normal operations, and such faulty construction is not uncommon. Following the massive rupture in 1993 of Colonial Pipeline’s line (built in 1980) near Reston, VA, investigators found the pipe resting on large, sharp rocks. Colonial chief executive Donald Brinkley told a Congressional hearing two months later that "obviously when you have 5,390 miles of pipe, you are going to occasionally find it sitting on a rock." Because of understaffing, the OPS does not have field inspectors present during all phases of construction of new pipelines. (See Appendix 9-G)

- **Shutoff valves** are important to isolate portions of pipe that have ruptured or that need routine maintenance, and are especially important for limiting the size of spills and thus reducing the threat to public safety and the environment. However, federal regulations require only minimal use of such valves, and the vast majority of valves used by the pipeline industry are manual, providing limited help in a major accident. A study for the U.S. Department of Energy in 1989 reported that only 12.4 percent of all main-line block valves in interstate pipelines were remote-controlled. There is no federal regulation that will require more than minimal valves, manual or otherwise, on the proposed Cross Cascade pipeline. (See Appendix 9-H)

- Federal regulations require **cathodic protection** on all interstate and new intrastate pipelines. This involves various means to send electric currents through the steel pipes to counter external corrosion caused by stray leakage of
currents from adjacent pipes, metal structures, or electrical installations. According to Battelle Memorial Laboratory, "corrosion still occurs on some [cathodically protected] lines." The 1993 California State Fire Marshal study found that lines with cathodic protection systems still had over four corrosion-caused leaks each year per thousand miles of pipeline. (See Appendix 9-I)

- There are no federal regulations on the routing of pipelines to minimize the exposure of environmentally-sensitive and intensively-developed residential and commercial areas. There are no requirements to minimize co-locating petroleum pipelines in corridors with natural gas, railroad lines, highways, water and sewer lines, fiber-optic cable, power lines, or other linear facilities, all of which increase the likelihood of third-party damage. (See Appendix 9-J)

- There are no federal, state or local regulations to prevent the encroachment by development on or near the proposed pipeline route, despite the industry's complaint that such encroachment is the major cause of accidents. This is despite recommendations by the National Transportation Safety Board in 1986, the National Research Council in 1988, and U.S. Secretary of Transportation Federico Pena's observation in 1994 that

  Continued suburban and exurban development is encroaching on it as once-rural areas give way to tract housing and shopping malls.

(See Appendix 9-A)
CHAPTER 10

INADEQUATE LEAK DETECTION

Statement:

Federal regulations leave leak detection standards to the discretion of pipeline companies. There are no federal requirements for "smart pigs," computerized line monitors, hydrostatic testing, or other such measures. The only explicit requirement is for visual surveillance of rights-of-way. Even the so-called state-of-the-art measures are severely limited and miss leaks that can create serious pollution. Because of federal preemption, state and local agencies will have no ability to require Olympic Pipeline Company to use any leak detection measures not required by federal regulations.

Items:

• Because of understaffing, U.S. Office of Pipeline Safety (OPS) field inspectors do not physically inspect pipelines after they begin operations and rarely when they are under construction. Neither does OPS investigate nine out of 10 reported accidents. Because Washington has no petroleum pipeline regulatory program, no state or local agency has the legal authority to perform such inspections. (See Chapters 12 & 13)

• The only explicit federal requirement for regular inspection and leak detection is that companies visually inspect surface conditions on or near pipeline rights-of-way at least 26 times per year. That method presumes that someone flying overhead in an airplane every two weeks will see brown vegetation and stop a leak from damaging our environment - unless the vegetation is brown or covered by snow from cold weather, or severe weather limits flights and visibility, or the leak had been going for two weeks or more. This method accounts for virtually none of the leaks reported to OPS. A 1989 U.S. Department of Energy study stated, "This method is often not sensitive to small leaks, and the response time is limited by the inspection frequency." (See Appendix 10-A)
- Slow, steady leaks create special problems because they are so difficult to detect and locate, and can cause severe soil and groundwater contamination if they persist for long periods. As a Williams Pipeline Company executive told the 1995 API Annual Pipeline Conference,

  Locating a "seeper" [a very slow leak] in a 30 mile test section has to be one of the pipeliner’s greatest challenges. We have located "seepers" with a pressure drop at less than 1 psig in 15 minutes in a 30 mile test section. The only problem is it usually takes five to seven days to locate a leak of this magnitude in a test section this long.

  (See Appendix 10-B)

- The U.S. Department of Energy study in 1989 made the important observation that

  . . . little information is available on the extent of pipeline leaks of environmental concern, as opposed to those largely of concern because of safety.

- This underscores the fact that the OPS program and its standards address safety only – preventing deaths, injuries and property damage – not preventing environmental damage. It was true in 1989 and still is in 1996.

- The same study reviewed the effectiveness of the eight major techniques for leak detection and came to a similar conclusion in 1989, noting, "It is reasonable to expect that small leaks occur but that not all leaks could be detected using current approaches."

  (See Appendix 10-C)

- We can expect numerous leaks and spills of varying sizes from the proposed Cross Cascade Pipeline project, challenging any leak detection system. This expectation is based on several findings:
• The record of leaks and spills of the existing Olympic Pipeline. We note that the proposed route is through far more rugged and remote terrain and therefore presents far more complicated problems of leak prevention and detection and spill cleanup. (See Appendix 3-C)

• The 1993 study by EFA Technologies concluded that a typical pipeline 250 miles in length would have the following probabilities of at least one federally reportable accident (2,100 gallons or more) occurring:
  • After one year, 19.90 percent
  • After five years, 67.02 percent
  • After 10 years, 89.12 percent
  • After 15 years, 96.41 percent
  • After 20 years, 98.82 percent

• The 1993 study by the California State Fire Marshal, Hazardous Liquid Pipeline Risk Assessment, found that pipelines up to 15 inches in diameter have two to three times the rate of leaks of larger pipelines 16 inches and greater in diameter, and that accidents on pipelines 11 to 15 inches in diameter generally cause greater property damage than ones on either smaller or larger diameter pipelines.

(See Appendix 10-D)

• Olympic's computerized line monitors, called a Supervisory Control and Data Acquisition (SCADA) system, monitor the flow rate, volume and pressure of fuel, adjusting for such myriad factors as temperatures, pipe diameter, fluid viscosity, line hydraulics and other factors that affect measurements. Sudden changes and some gradual changes can signal pipeline controllers of a problem. Unfortunately, such systems cannot detect small leaks, generally those that lose less than one percent of volume, according to several studies, including:

  • A 1993 study by the API, "Pipeline Variable Uncertainties And Their Effects on Leak Detectability."
• In fact, the study by pipeline regulators in California found that, while lines with SCADA systems had about 40 percent fewer spills, they also had larger spills and do not "reduce leak incident rates."

• A 1995 study for OPS by the Volpe National Transportation Systems Center reported widespread concerns in the industry about SCADA false alarms, poor input information, uneven flow conditions, and program bugs and other startup complications.

• The same study noted that small leaks are "below the limits" of SCADA systems in current use and stated, "These small leaks can stay small and go unnoticed for weeks."

• Given the Cross Cascades's projected average daily throughput of over 2.5 million gallons per day, a gradual leak of 25,000 gallons or more per day could go undetected by this method.

(See Appendix 10-E)

• Olympic's use of smart pigs, instrumented internal inspection devices, will have limited usefulness, according to several recent studies:

  • The General Accounting Office polled 15 pipeline companies in a study released in 1993 and found a consensus that pigs could not detect metal loss in welds, cracks that run the length of pipes, seam failure, or the condition of external coatings.

  • The Battelle Memorial Laboratory noted similar limitations, in a paper submitted to the 1994 National Pipeline Summit.

  • A Conoco, Inc., executive stated at the same National Pipeline Safety Summit that a smart pig "will not detect failures in the weld seam nor in the girth weld, and it will reflect a pop can or welding rod end buried near the pipe just as if it were a defect in the pipe wall."
• In a paper at the 1995 API Annual Pipeline Conference, Keith Grimes of BG Inspection Services Inc., stated that

  ... cracks have proven to be the most difficult type of defect to detect, and there is currently no commercially available in line inspection system with proven crack detection capability.

• Even so, there is no Federal requirement for using smart pigs, although some companies use them voluntarily, albeit sparingly because of purported costs of $1,000 to $4,000 per mile of pipeline inspected. (See Appendix 10-F)

• Hydrostatic testing is more useful, but rarely used on a regular basis because of cost. The API stated in 1987 that the average cost for hydrostatic testing was $5,300 per mile and that “the expected net effect of mandated hydrostatic testing would be virtually no increase in overall safety.” Federal regulations require hydrostatic testing of new pipelines when built only, and testing only once of pipelines built before 1985. There is no requirement for regular testing after the initial test, even though the NTSB has advocated such a requirement since 1978. (See Appendix 10-G)

• Much more important than the methods commonly used by pipelines are those not being used, even though they could significantly decrease leaks and spills. Direct leak detection systems using hyrdocarbon sensing cables have been used successfully in numerous locations by Chevron, GATX, and airport authorities in Denver, Japan, and South Korea. Regular hydrostatic pressure tests can spot small defects that smart pigs and SCADA tests miss. Foot or ground vehicle patrols can be much more effective than the most commonly used method, aircraft patrols. More automatic and remote-controlled shutoff valves, improved smart pigs, field recoating of pipes, double-wall pipes, and new land-use regulations can all help reduce spills and damage. (See Appendix 10-H for examples of proposed safety improvements)
• One innovative leak detection system developed by Esso Canada uses an odourant called "Tekscent" for hydrostatic pressure tests of problem pipe with otherwise undetectable leaks. Then handlers use trained Labrador retrievers to patrol the surface above the tested pipe and sniff for minute traces of the odor that escape from small pipe cracks, some so small that they are invisible to the naked eye. Despite its proven success in Canada, however, the Tekscent system has failed to attract significant interest from U.S. petroleum pipeline companies. (See Appendix 10-I)

• Experts have also noted that experienced pipeline safety managers have been disappointed repeatedly after installing new detection measures on their pipeline systems. Peter Black, in "A Review of Pipeline Leak Detection Technology," in Pipeline Systems (1992), stated,

> The reality of today's industry is that there is a great deal of suspicion of, and lack of faith in, the vendors of integrity monitoring technology in general, and leak detection software and hardware in particular. . . . Installed systems have often been tuned to give the promised sensitivity promised to the customer, at the cost of a false alarm rate that drove operators to disable the system altogether.

(See Appendix 10-J)
CHAPTER 11

THE PIPELINE SAFETY ACT

Statement:

In contrast to its remarkably lax standards and enforcement provisions, the Pipeline Safety Act, Chapter 601, 49 U.S. Code, strictly preempts state and local government regulation of pipelines and severely restricts lawsuits against pipeline companies. It provides little protection to the public. As lax as the Act has been, amendments signed into law on October 12, 1996, will weaken it further.

Items:

- Unlike such environmental legislation as the Oil Pollution Act of 1990 (OPA 90), the Pipeline Safety Act spells out few specific operating or technical standards; the entire act covers only 25 pages in the U.S. Code. There are no requirements for periodic hydrostatic testing, cathodic protection, pipe coatings, leak detection systems, or other specific measures. Instead, it authorizes the U.S. Department of Transportation to establish standards based on relevant data, appropriateness, reasonableness, and their contribution to improved public safety and environmental protection. (See Appendix 11-A)

- The Pipeline Safety Act is the only part of the U.S. Code that spells out a legal authority for a program to prevent pollution from petroleum pipelines. For example, OPA 90 seeks to prevent oils spills by tanker ships and barges, but not petroleum pipelines.

- In contrast with the flexibility it gives federal regulators, the Act rigidly protects the industry from regulation by state and local governments (discussed in Chapter 8) and civil lawsuits by injured parties; it relieves companies from any federal routing or other land-use requirements for new and existing pipelines; it exempts major portions of the nation's petroleum pipeline system;
and it provides only minor civil penalties for violations by pipeline companies.

- The Act provides pipeline companies with a powerful protection from owners of property destroyed by pipeline accidents or state or local governments seeking to correct dangerous conditions. Section 60121(a)(1)(B) states that persons

  "... may not bring the action [for injunctive relief] if the [Office of Pipeline Safety] has commenced and diligently is pursuing an administrative proceeding for the violation."

- The limitation on citizens suits leaves individuals and communities powerless to compel enforcement where pipelines may be operating dangerously. James Pates, city attorney of Fredericksburg, Va., stated at the 1994 National Pipeline Safety Summit:

  "To my knowledge, no citizens suit has ever been successfully brought under current law to enforce either the gas or hazardous liquid safety act. If pipeline operators feared private citizens' suits when they violated the law, OPS would have a far easier time securing voluntary compliance with its regulations."

  (See Appendix 11-B)

- The Act limits the amount of civil penalties federal agencies can levy on pipeline companies, no matter how egregious their actions, ignoring the need for fines as a deterrence. Section 60122.(1) of the Act caps the amount of civil penalties by pipeline companies at no more than $25,000 per violation and $500,000 for each series of related violations.

- Unlike other environmental laws, the Act does not permit accident victims or state or local government officials to participate in OPS proceedings leading up to decisions about penalties, repairs, resumption of operations, or other issues. State and local governments can comment on enforcement settlements between the OPS and pipeline companies, but that is far short of the right to have standing to intervene in enforcement proceedings."
• As a result, pipelines have spilled an average of 11.1 million gallons of crude oil and petroleum products in the U.S. each year since 1970.

• As inadequate as the Pipeline Safety Act is today, it has shined in contrast with the impact of newly-enacted amendments. As part of its campaign against environmental protection, the Republican-led 104th Congress enacted industry-drafted amendments and budget cuts. Its "Accountable Pipeline Safety and Partnership Act of 1996" will cripple future efforts to improve pipeline safety. President Clinton signed this into law on October 12, 1996. Its major provisions are:

  • Section 6 requirements for risk assessment and cost-benefit analyses for proposed new regulations will cripple the ability of OPS to improve its already weak regulations. Section 4 requires that benefits of new regulations exceed costs. These were part of the "Contract with America" promise to relax environment protections. Opposition had prevented Congress from attaching such requirements to other environmental laws, but industry prevailed in this case.

  • Section 5 allows companies to ignore current and future pipeline regulations and write their own rules, if they participate in "risk management demonstration programs." There is no requirement that the affected public can participate in the approval of a company's "risk management plan," even in communities exposed to unsafe operations.

  • Section 4 elevates the industry-dominated Technical Hazardous Liquid Safety Standards Committee from an advisory to "peer review" status. This provides unjustified legal weight to industry objections to new regulations, giving industry an advantage over state and local governments, affected communities, and victims of pipeline accidents.

  • Section 4 eliminates the requirement that pipeline company workers be certified as qualified to operate and maintain pipeline
facilities. This will allow poorly-trained company workers and outside contractors to perform key tasks.

- Section 6 eliminates the requirement that OPS conduct inspections every two years of pipeline companies' inspection and maintenance plans. Instead, OPS can decide when, if at all, to conduct such inspections.

- Section 7 severely weakens protection of wetlands and waterways from pipeline spills, by replacing "navigable waterway" with "waters where a substantial likelihood of commercial navigation exists," and by narrowing the definition of environmentally sensitive areas. The previous definition included earthquake and landslide zones, areas of likely groundwater contamination, freshwater lakes, rivers and waterways, and river deltas and other areas subject to erosion. The new definition restricts protections to areas "critical to drinking water" and

(2) locations that are near pipeline rights-of-way that have been identified as critical wetlands, riverine or estuarine systems, national parks, wilderness areas, wildlife preservation areas or refuges, wild and scenic rivers, or critical habitat areas for threatened and endangered species.

These new definitions will severely restrict the development of regulations to protect the environment from pipeline spills; there are no such regulations today.

- Section 4 weakens the requirement that replacement pipelines be altered to allow testing by "smart pigs" only if the pipeline's "basic construction would accommodate" smart pigs. This exempts old, poorly designed pipelines which are most in need of inspection.

- Section 4 adds a requirement that natural gas pipeline companies must submit maps to municipalities that show where their interstate pipelines are located. However, because it
applies only to natural gas pipelines, there remains no such requirement that companies with liquids pipelines provide any maps to state and local governments. (In 1990 the OPS declined to require by rulemaking the submission of such maps to state and local governments, citing industry objections that this would cost too much.)

- Section 4 also requires that OPS study whether or not requiring more remote-controlled shutoff valves (instead of manual valves) is "technically and economically feasible." However, this applies only to interstate natural gas pipelines, not liquids pipelines, and leaves even this determination up to an agency which has repeatedly denied that such a need exists even for natural gas pipelines.

(See Appendix 11-A)

- The Transportation Appropriation bill passed earlier this year further reduces funding for the Office of Pipeline Safety. At its peak of funding, fiscal year 1995, the OPS budget was $37,340,000; for fiscal year 1997 it is $30,988,000, a 17 percent cut from two years earlier. (See Appendix 11-A)

- Although the "Accountable Pipeline Safety and Partnership Act of 1996" passed the Senate on September 27, 1996 unanimously, there was significant opposition in the House on the next day, led by Rep. Frank Pallone Jr., D-NJ. At the end of spirited debate, the bill passed 276-125 on September 27, with the two-thirds vote it needed to suspend House rules and pass a Senate bill. (See Appendix 11-C)

- The backdoor method of passing this bill (it was in the closing days of the 104th Congress) and its obvious weakening of protections from pipeline spills spurred widespread calls for President Clinton to veto it. The New York Times called it "a dangerous bill . . . tailored to industry wishes that weakens current rules." The chief executives of eight national environmental organizations wrote to President Clinton that it makes the pipeline
CHAPTER 12

FEDERAL PREEMPTION

Statement:

The Olympic Pipeline Company is an interstate petroleum pipeline company. This is important because the Pipeline Safety Act prohibits state and local governments from imposing safety standards on interstate pipelines which are more stringent than federal standards. The Act permits states to impose more stringent standards on intrastate pipelines, if a state has obtained federal certification for its enforcement program. The State of Washington recently received certification for regulating intrastate pipelines, but has not yet established such a program. However, the Cross Cascade Pipeline would be part of Olympic’s interstate system and not subject to Washington regulations. As a result, no state or local agency in Washington will be able to protect the public or environment from unsafe operation of the proposed project, once it is built.

Items:

- The Act created a regulatory monopoly for a single federal agency, the Office of Pipeline Safety (OPS), prohibiting stricter regulation of interstate petroleum pipelines by state and local governments, as well as other federal agencies. States can regulate the routing and other land-use policies related to pipelines only. (See Chapter 14)

- The Washington Utilities and Transportation Commission (WUTC) in 1996 received certification from the OPS to establish a regulatory program for intrastate pipelines. However, as the WUTC noted, “OPS will retain responsibility for interstate pipelines as authorized by the Federal Pipeline Safety Laws [sic], 49 U.S.C. Section 60101 et seq. .” (See Appendix 12-A)

- However, even though the proposed Cross Cascade Pipeline route would be entirely within Washington, it is part of the Olympic Pipeline’s interstate system between Washington and Oregon, and therefore will be regulated as an interstate pipeline and,
federal injunction following its pipeline disaster in San Bernardino, CA, in 1989. (See Appendix 6-F)

- A federal court ruling in 1987 upheld preemption in Williams Pipeline Line Co. v. City of Mounds View, Minnesota. After a spill and fire killed two persons there in 1986, the city had tried to stop Williams from resuming operations, fearing another accident. The ruling barred the city from seeking replacement or relocation of the pipeline as well as postponement of renewed operations. In fact, the court ruled,

   Pipeline operator showed irreparable harm if it were not permitted to renew operations pursuant to Office of Pipeline Safety approval following rupture of line in view of possibilities of serious short-term fuel supply problems resulting in higher prices and necessitating more dangerous means of transporting petroleum products, such as trucking.

   (See Appendix 12-D)

- A federal court in California issued a temporary restraining order against the City of San Bernardino in 1989, barring the city from preventing resumption of GATX’s Calnev pipeline operations two weeks after its explosion killed two people, injured 31, and destroyed and damaged numerous homes. The city was seeking to require extra cover over the GATX pipeline, repair of a crucial shutoff valve, and its relocation away from homes. (See Appendix 12-E)

- A federal District Court of Appeals decided in 1993, in Kinley Corporation v. Iowa Utilities Board, that states could not impose environmental protection standards on interstate pipelines, even though the Act specifically preempts safety standards only. The court declared that the Pipeline Safety Act constituted an implied preemption, as well as a "conflict preemption" when complying with state law makes it impossible to comply with federal laws. (See Appendix 12-F)

- The City of Fredericksburg, VA, has struggled since 1989 to protect its water supply from unsafe operations by Colonial Pipeline, whose accidents in
CHAPTER 13

FEDERAL PIPELINE SAFETY REGULATIONS

Statement:

The only agency at any level of government with authority to regulate the proposed Cross Cascade Pipeline – the Office of Pipeline Safety (OPS) – is a failure. Federal petroleum pipeline regulations specify few technical or operating standards for pipeline companies to follow. Because of understaffing and lax management, OPS investigates few pipeline accidents and takes enforcement actions only rarely. It has allowed pipelines to become far more serious polluters than other means of transporting fuel. Moreover, its recent decisions to proceed with a risk management program would give pipeline companies even greater freedom from regulation, rivaling efforts in Congress to gut the Pipeline Safety Act.

Items:

- "Transportation of Hazardous Liquids by Pipeline," Code of Federal Regulations, covers only 30 pages. It does not require any periodic inspection of pipelines by hydrostatic testing, smart pigs, or any other means, except for visual surveillance of the right-of-way surface. It does not specify automatic or remote-controlled shutoff valves, double-wall pipe or other secondary containment, line volume and pressure monitors, or other advanced measures, or require replacement of old pipe. Its pipe standards allow petroleum to go through pipe thinner than those required for carrying water. It exempts from all regulation about one-third of the nation's petroleum pipelines, chiefly low-pressure and gathering lines. It requires reports of pipeline accidents only if they exceed 2,100 gallons, or cause injuries or fatalities or more than $50,000 in property damage. (See Appendix 13-A)

- Chronic understaffing prevents OPS from implementing even those lax regulations, and noncompliance is widespread. The OPS has a staff of only 105 to regulate 1.7 million miles of natural gas and liquids pipelines nationwide. The OPS staff is able
were 2,864 reported pipeline accidents which spilled 144,148,616 gallons of crude oil and petroleum products, yet the OPS collected only $734,150 in civil penalties. That amounts to penalties paid of barely half a cent per gallon spilled - surely one of the great regulatory bargains of our time. (See Appendix 13-E)

- The NTSB has long criticized the lax regulatory attitude of the OPS and outlined these criticisms in a report, Pipeline Special Report: Evaluation of Accident Data and Federal Oversight of Petroleum Product Pipelines, adopted by the board on January 23, 1996. It stated,

  Although RSPA [OPS] has taken regulatory action and undertaken other initiatives to minimize excavation damage, RSPA has failed to take effective and timely action to address corrosion control, inspection and testing of pipelines, and methods to limit the release of product from failed pipelines.

And,

  RSPA’s failure to fully implement the Safety Board’s original 1978 safety recommendations to evaluate and analyze its accident data reporting needs has hampered RSPA’s oversight of pipeline safety.

(See Appendix 13-F)

- After an accident happens to the Olympic pipeline, no state or local agency or even the victims can take part in OPS investigations or enforcement actions. Under federal pipeline regulations, OPS negotiates directly and secretly with the pipeline company, excluding all other affected parties. This secrecy allows companies to demand fewer corrective actions - they can threaten to contest such provisions - and the OPS can capitulate without fear of the public noticing. The OPS claims this right under a Freedom of Information Act exemption that allows (but does not require) agencies to withhold information that could interfere with enforcement proceedings. "These are decisions that have to be made outside of a political arena," OPS head George Tenley said in 1993. (See Appendix 13-G)
• The Clean Water Act in 1970 required that the U.S. Department of Transportation (DOT) establish programs to prevent water pollution in transportation activities, including pipelines. However, DOT never established such a program. The Pipeline Safety Act dealt only with public safety, not environmental protection. The OPS routinely rejected environmental protection regulations proposed by the NTSB and others; its wholesale rejection of proposed regulations in 1990 are a prime example. As a result, there was no federal program to protect the environment from pollution by oil pipelines, as the General Accounting Office (GAO) found in a 1991 report to Congress. There is still no such program. (See Appendix 13-H)

• A 1989 U.S. Department of Energy study, Unregulated Potential Sources of Groundwater Contamination Involving the Transport and Storage of Liquid Fuels: Technical and Policy Issues, noted that no federal regulations protect groundwater from pollution from pipelines:

Although some underground storage of liquid fuels is now subject to federal regulations intended to protect human health and the environment, no federal regulations are aimed at protecting groundwater from liquid fuels stored in aboveground tanks, transported in pipelines, or stored in all underground tanks. [emphasis ours]

(See Appendix 13-I)

• A 1990 notice by the OPS, “Disposition of Safety Proposals,” in the Federal Register underscored two long-standing failures: OPS disregard for environmental protection standards and its unseemly regard for saving the industry money at the expense of the public interest. Reviewing 18 safety proposals, the OPS adopted only two, rejected such proposals as:

• Providing more information on pipelines to local governments along routes, because of
"high cost of preparing and delivering the material";

- Requiring the use of hydrostatic tests and "smart pigs" every two or three years, because "integrity testing of all pipelines at arbitrary, fixed intervals is not justified";

- Requiring specific leak detection measures and great use of shutoff valves, because "pipeline-simulation technology for more rapid leak detection and shutdown is not sufficiently developed for general use";

- Requiring pipeline companies to provide all landowners within a half-mile of a pipeline with written information about its location, bowing to industry comments that

  ... direct notices would create undue alarm, that landowners are not necessary the persons at risk, and that the costs would be extremely high with little expected benefit.

(See Appendix 13-J)

- Congress responded to the 1991 GAO report by amending the Pipeline Safety Act in 1992 by specifically requiring OPS to regulate pipelines for environmental protection, as well as safety. After four years, however, the OPS had adopted no new final rules to implement a pipeline environmental protection program. In fact, OPS rulemaking since 1992 has taken several steps backward. For example, in 1994, it exempted the reporting of many pipeline accidents that pollute the environment, and it continued the exemption from all regulation of most low-pressure and gathering lines, a minor threat to public safety but a major source of pollution. (See Appendix 13-K)

- We cannot expect new regulations, given Congressional actions being taken by the Republican majorities in the Senate and House. Amendments to the Pipeline Safety Act pending (and likely to pass) in 1996 would require unwieldy risk-assessment and cost-benefit requirements that create insurmountable red tape for regulatory agencies, foreclosing the
possibility of environmental protection or other improved standards in the foreseeable future. (See Appendix 11-C)

- Not to be outdone, the OPS began a deregulation effort of its own in 1995 that rivals the Congressional effort to dismantle the regulation of petroleum pipelines. The OPS held a series of "public" meeting in 1995 to which only pipeline executives were invited. As the Oil & Gas Journal reported on one meeting, "U.S. pipelines are eager to help Washington find ways to improve safety and environmental rules by streamlining the regulatory process." (See Appendix 13-L)

- This follows an effort begun by OPS in 1993 to adopt "risk-based regulations" to allocate its scarce regulatory resources. Unfortunately, the emphasis is on eliminating pipeline regulations, giving pipeline companies even more deregulation than they have enjoyed for years already. Moreover, OPS and other pipeline data are so unreliable and misleading that they ignore the vast majority of petroleum problems, a problem OPS acknowledged in 1990:

  At present OPS does not have available a data base from which to determine whether pipe of a particular characteristic or manufacturing process has failed more often than any other pipe, and which operators have particular types of pipe.

- Despite the lack of data to determine actual risks and their factors, development of the OPS risk management program is being accelerated by OPS, state regulators, and industry executives - without the participation of environmental organizations, accident victims, or others who might represent the public interest. The "Joint Government/Industry Risk Assessment Quality Team" issued its final report in 1995, without outside participation. More recently, OPS has held "Risk Management and the Pipeline Industry" conferences to develop an OPS program, also without outside participation. As part of its April 14-15, 1996 conference, industry and regulators staged a play, "Risky Bidness in Texas: A Risk Management Drama," with much good cheer and jolly good fun shared among them! (See Appendix 13-L)
• Informed critics have rightly noted that the industry has great flexibility and few regulations already, and that the true purpose of the risk management effort is to weaken regulations further. For example:

  • The Legal Environmental Assistance Foundation noted,

    Using risk assessment and cost benefit analysis 20 years ago, government would not have banned lead in gasoline, banned DDT, or even required automobiles to have seat belts.

  • Charles Batten, the NTSB’s senior pipeline expert, observed that OPS and RSPA managers have “learned to use the right words,” but,

    While all of these activities are productive for moving RSPA toward the world of risk management, they are not a substitute for knowledge, understanding, and practical experience.

  • Don Stursma, pipeline regulator for the Iowa Department of Commerce, in 1995 called the push by industry “ill-advised assaults on that floor [of pipeline safety regulations] in the guise of risk management.” He further noted that downsizing that has eliminated many senior pipeline company safety professionals has weakened the industry’s commitment to safety:

    . . . much knowledge and experience has been lost. Industry today seems increasingly dominated by accountants, lawyers, and MBAs with no technical, safety, or operations background. . . . Morale is bad out there. . . . [We] do not want to see the pipeline industry become like the railroad industry a few years back; squeezed for profits while its infrastructure deteriorated.

    (See Appendix 13-M)

• The OPS has become the promoter and protector of the oil pipeline industry, instead of its regulator. In
public statements it continues to promote pipelines as the safest, most environmentally compatible method of transporting petroleum, without having done the most basic research about the record of spills and leaks. And, as we have recently learned about the Federal Aviation Administration after the Valujet air tragedy, the public is at risk when a safety agency becomes a champion of the industry it is supposed to regulate.

- As the OPS states in the attached correspondence, the OPS has never studied the relative environmental hazards involved in the different modes of transporting petroleum. In fact, in 1992, the OPS asked that the Florida Energy Pipeline Association retract its false claim that the U.S. Department of Transportation (DOT) stated pipelines are the most "environmentally compatible" way to transport oil. As then-DOT official Travis Dungan stated,

  To my knowledge, no one from RSPA has ever made a claim that pipelines offer the most environmentally compatible method for transportation of petroleum.

Also in 1992, then-OPS director George Tenley Jr., stated about claims of relative environmental performance,

  With respect to the assertions in the article, we cannot at this time categorically confirm or deny them. Since the statistics are not from DOT data bases, we would have to undertake a significant amount of validation, analysis, and interpretation to arrive at any responsible conclusions.

(See Appendix 13-N)
CHAPTER 14

PIPELINE LAND-USE ISSUES

Statement:

Olympic’s EFSEC application for the proposed Cross Cascade Pipeline project documents that the proposed pipeline and related facilities do not comply with the local zoning codes or comprehensive plans of any of the local governments affected, a fact that the State of Washington should weigh carefully. Furthermore, there is no federal requirement that a state or local government approve the routing plans for a petroleum pipeline, if it is inconsistent with land-use laws. In fact, governments in other states have denied pipeline companies such rezoning. Also, local governments should consider recommended land-use regulations to enhance public safety, when considering a proposed petroleum pipeline.

Items:

- The proposed route is inconsistent with the zoning and comprehensive plans of the six counties and two municipalities it would traverse. These local land-use rules were written to protect the environment and quality of life of the people of Washington. (See Appendix 14-A)

- The Cross Cascade Pipeline project and Olympic’s existing pipeline are hazardous materials facilities; that is why federal law refers to them as “hazardous liquids pipelines.” Therefore, state and local governments have a special obligation to exercise their land-use authority. In fact, they should exercise the same level of care in considering a pipeline as they would a hazardous waste landfill. Pipelines have the same potential for leaks and environmental damage.

- Olympic is disregarding pipeline safety considerations by co-locating 96 miles its proposed route with other linear facilities. While it is ostensibly desirable to leave 96 miles of right-of-way relatively undisturbed, and it is an attractive land-use concept, the reality is that co-location
greatly increases the danger of outside damage to pipelines. Power line repair crews, telephone cable excavators, railroad maintenance crews, and others sharing a right-of-way are frequent causes of damage and spills. (See Brinkley remarks on page 12 of Appendix 14-F)

- In promoting its project, Olympic has deliberately concealed another land-use issue: measures that state and local governments should adopt to prevent encroachment and damage of pipelines. In its 1988 study, Pipelines and Public Safety, the National Research Council (NRC) proposed that state and local governments adopt land-use regulations that prevent encroachment by residential, commercial, and other development, and building codes that can reduce the potential for third-party damage that contribute to pipelines accidents. The amendments pending in 1996 the Pipeline Safety Act, in fact, direct the Office of Pipeline Safety to disseminate and encourage adoption of the NRC recommendations. (See Appendix 14-B)

- State and local government actions are necessary because the federal Pipeline Safety Regulations offer no such protection. The only regulation which mentions siting considerations applies only to new pipelines and states, in its entirety:

196.208 Pipeline location.

(a) Pipeline right-of-way must be selected to avoid, as far as practicable, areas containing private dwellings, industrial buildings, and places of public assembly.

(b) No pipeline may be located within 50 feet of any private dwelling, or any industrial building or place of public assembly in which persons work, congregate, or assemble, unless it is provided with at least 12 inches of cover in addition to that prescribed in 195.248.

(See Appendix 14-C)

- In the wake of the fatal natural gas pipeline explosion in 1994 in its township, Edison, NJ, enacted a setback ordinance that forbids the
construction of buildings "or land disturbance" within 75 feet of a natural gas or petroleum pipeline and the construction of buildings or structures containing corrosive, toxic, or combustible materials within 125 feet. (See Appendix 14-D)

• Fairfax County, VA, adopted similar land-use measures in 1995, following a 408,000 gallon fuel oil spill there by Colonial Pipeline in 1993. (See Appendix 14-E)

• Pipeline industry executives often complain, when convenient for their immediate purposes, about the lack of local government controls on development near rights-of-way. For example, in Congressional testimony in 1993, Colonial Pipeline president Donald Brinkley complained that local governments failed to prevent encroachment and construction activity that cause third-party damage to pipelines. He suggested numerous building-code and zoning changes. (See Appendix 14-F)

• During county deliberations on a proposed Colonial Pipeline project in north Florida, a local citizens’ group, the Friends of Lloyd, proposed such measures in a draft ordinance in 1993. The Jefferson County Commission took no action, but the draft proposal outlines the most useful elements of a local ordinance to protect pipelines from third-party damage. (See Appendix 14-G)