ANNUAL REPORT ON PIPELINE SAFETY

CALENDAR YEAR 1994

Prepared By:

U.S. Department of Transportation
Research and Special Programs Administration
Office of Pipeline Safety
Washington, DC 20590

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BACKGROUND

Section 60124 of Title 49 of the United States Code, requires the Department of Transportation to report on its pipeline safety program. This report provides an overview of pipeline safety program activities during Calendar Year (CY) 1994.

The Department's pipeline mission is to protect the people and the environment of the United States through a comprehensive, risk-based pipeline safety program. The Department develops, issues, and enforces minimum pipeline safety regulations. The code in 49 U.S.C.§ 60101 et seq. (the Pipeline Safety Law) provides for Federal safety regulation of pipeline facilities used in the transportation of natural gas and provides for safety regulation of pipeline facilities used in the transportation of hazardous liquids. The Pipeline Safety Law provides a framework for promoting pipeline safety through exclusive Federal authority for regulation of interstate pipeline facilities, and Federal delegation to the states of all or part of the regulatory responsibility for intrastate pipeline facilities.

The Department provides grant funding to support states in conducting intrastate gas and hazardous liquid pipeline safety programs; ensures operator compliance through a risk-based pipeline inspection plan and use of enforcement actions as a deterrent against violators; collects, compiles, and analyzes pipeline safety and operating data; and, through the Transportation Safety Institute (TSI), conducts training for government and industry personnel in application of pipeline safety regulations. The Department also undertakes research with emphasis on solid analytical methodologies and state-of-the-art technology to provide the foundation necessary for planning, evaluating, and implementing the pipeline safety program.

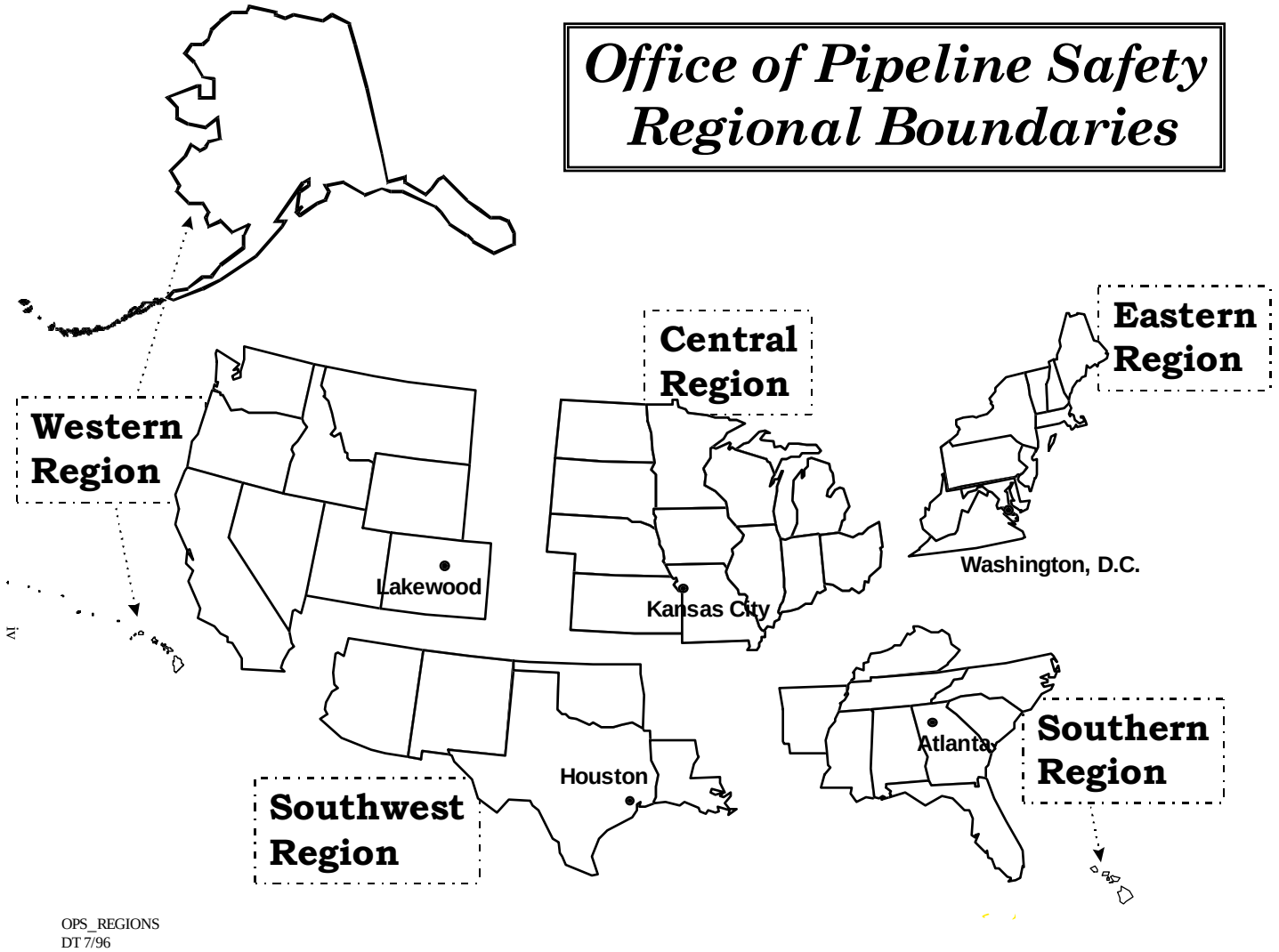
The Department's regulatory authority covers approximately 1.7 million miles of natural gas pipelines managed by almost 900 transmission and gathering operators, over 1,400 distribution operators, 106 liquefied natural gas (LNG) operators, about 52,000 master meter operators, and over 165,000 miles of hazardous liquid pipelines managed by more than 200 operators, as well as 2,200 miles of carbon dioxide pipelines.

Section 60301 of Title 49 of the United States Code authorizes the Secretary of Transportation to assess and collect annual fees from the pipeline industry to fund the cost of the Department's pipeline safety program.

Title IV of the Oil Pollution Act of 1990 (OPA 90), Pub. L. 101-380, 104 Stat. 484, requires national planning and response system for oil spills. The OPS is responsible for implementing OPA 90 requirements as they apply to onshore oil pipelines that could reasonably be expected to cause significant and substantial harm to the environment by discharging oil into or on the navigable waters of the United States and adjoining shorelines.

The Department's pipeline safety mandate is administered, under delegation from the Secretary, by the Research and Special Programs Administration (RSPA) through the Office of Pipeline Safety (OPS). The functions of the Department's Agency Authorized Officer (AAO) for the Alaska Natural Gas Transportation System project are also assigned to OPS. Under the organizational structure established by Executive Order 12142 ("The Alaska Natural Gas Transportation System"), the AAO represents the Department within the Office of the Federal Inspector, and is responsible for monitoring and expediting all project-related activities that fall within the purview of the Department.

At the end of 1994, OPS had approximately 75 employees. About half of these employees work at Headquarters in Washington, D.C., and the other half are located in five Regional Offices across the country (Eastern Region--Washington, D.C.; Southern Region--Atlanta, GA; Central Region--Kansas City, MO; Southwest Region--Houston, TX; Western Region--Lakewood, CO) and at RSPA's training facility, TSI in Oklahoma City, OK (see regional boundary map below).



PROGRAM HIGHLIGHTS AND DIRECTION

In 1994, a Work Redesign effort for OPS was completed. In addition, OPS continued working on the many aspects of the Environmental Action Plan. OPS also focused on implementing risk management methodology into its regulatory and compliance program.

Work Redesign. The OPS Work Redesign effort to restructure and establish new work procedures and tasks was completed in 1994. Early efforts focused on ways to improve work processes to increase productivity and employee satisfaction. The successful decentralization of OPS placed additional responsibility with the Regions. Areas of increased Regional responsibilities that were introduced last year that have been improved, include accident investigations, safety inspections, processing of enforcement cases, interregional inspections, and improved office procedures. Similarly, OPS Headquarters, in Washington, D.C., placed additional responsibility on employees by having less supervision of those employees.

The successful introduction of Lotus Notes in 1992 continues to improve efficient and productive work in OPS. The interactive features of Lotus Notes have proven to be a boon to the review and approval of documents. The OPS Local Area Network electronically tying the geographically dispersed Regions, State Agencies and Headquarters has led to a closer, more productive, and integrated Federal/state pipeline safety program. This has provided OPS the capability of sharing and reviewing documents by all in the organization. Computer upgrades were provided to many Federal employees and many inspectors were provided laptop computers to facilitate recording of inspection activities while in the field.

OPS' increased coordination with other Federal agencies, states, and the pipeline industry in programmatic initiatives have led to exemplary partnerships. Such agencies as the U.S. Coast Guard, Minerals Management Service of the Department of the Interior, Federal Energy Regulatory Commission, National Oceanic and Atmospheric Administration, and Environmental Protection Administration joined RSPA in discussions regarding the Risk-based Prioritization process. The National Association of Pipeline Safety Representatives (NAPSR) was instrumental in helping RSPA develop the Risk-based Prioritization process and in discussions regarding many legislative initiatives.

Risk Management. To provide a basis for allocating government resources to areas that have the greatest potential to improve pipeline safety, OPS completed the initial evaluation of pipeline issues using a risk-based prioritization process. OPS solicited input to the risk-based prioritization process in the Federal Register. OPS obtained input from pipeline operators, the public, and other government and state agencies in developing the risk-based prioritization process. The process was improved by incorporating information and recommendations obtained from all sources, with the new prioritization process to be used yearly or biennially to evaluate pipeline issues and possible solutions.

OPS placed a major emphasis into incorporating risk management into the OPS program. The Risk Assessment Quality Team (RAQT) was formed as a cooperative venture of OPS and the American Petroleum Institute's General Committee on Pipelines (API) to explore the applicability and potential benefits of formalized risk management programs within the liquid pipeline industry. OPS and API considered this an opportunity to maximize the effectiveness of individual efforts

that had been initiated in the areas of risk assessment and risk management and to align the goals and principles guiding the development of risk management programs within OPS and industry. OPS plans to further incorporate risk management concepts in other programmatic initiatives in the future.

Environmental Action Plan. OPS accelerated the implementation of an Environmental Action Plan that included the prioritization of mandated regulatory requirements in the Pipeline Safety Law, such as: (1) hydrostatic testing of hazardous liquid pipelines that have not been previously tested; (2) requiring periodic inspection of pipelines in environmentally sensitive and high-density population areas using instrumented internal inspection devices; (3) not excepting a hazardous liquid pipeline from regulation solely because it operates at low internal stress; and (4) requiring liquid operators to have a damage prevention program. Another feature of the Environmental Action Plan was to analyze various Geographic Information System (GIS) mapping alternatives and determine a strategy for creating reasonably accurate maps for pipelines. In addition, state pipeline and compliance programs were redirected to include: (1) increased state grants and state participation in the program; (2) focused inspections of hazardous liquid pipelines and pipeline construction; and (3) increased Federal and state inspector training. In addition, OPS completed selection and assignment of a state liaison person to each of the Regions. The state liaison person will be responsible for assisting states and to evaluate the adequacy of each state program.

Hazardous Liquid Pipelines. In light of the environmental provisions and required legislation targeting hazardous liquid pipelines in the Pipeline Safety Law, inspections of hazardous liquid pipelines were increased in 1994. As part of the Environmental Action Plan, OPS continued to develop regulations and studies for hazardous liquid pipelines as required by the Pipeline Safety Law.

Natural Gas Pipelines. OPS continued to develop regulations for natural gas pipelines as required by the Pipeline Safety Law. Some of the most significant legislative mandates include: prescribing circumstances for the installation of excess flow valves in service lines; advising customers of the proper maintenance of these excess flow valves; surveying customers regarding their views on who should maintain excess flow valves; and surveying distribution operators to determine the extent to which they have plans for the safe management and replacement of cast iron pipelines. Data was obtained for most of these legislative requirements during 1994.

Spill Response Planning. In 1994, RSPA conducted preliminary reviews of 1,200 response plans and targeted in-depth reviews of those response plans which posed a significant and substantial threat to the environment. During the year, RSPA also participated in the development of the Preparedness for Response Exercise Program, which is a multi-agency oil spill exercise program developed with other Federal agencies and the oil industry.

REGULATORY ACTIVITIES

OPS develops regulations to assure safety in design, construction, testing, and the operation and maintenance of pipeline facilities and in the siting, construction, and the operation and maintenance of Liquid Natural Gas (LNG) facilities. Regulations are also issued to administer the pipeline safety program and delineate requirements for onshore response plans. These regulations are published in Title 49 of the Code of Federal Regulations (CFR): Part 190, Enforcement Procedures; Part 191, Natural Gas Reporting Requirements; Part 192, Natural Gas Pipelines; Part 193, Liquefied Natural Gas Facilities; Part 194, Response Plans for Onshore Oil Pipelines; Part 195, Hazardous Liquids Pipelines; Part 198, State Grants; and Part 199, Drug and Alcohol Testing.

To provide expert input during development of pipeline safety regulations, the Pipeline Safety Law established two pipeline safety advisory committees, the Technical Pipeline Safety Standards Committee and the Technical Hazardous Liquid Pipeline Safety Standards Committee. The Committees review proposed regulations for technical feasibility, reasonableness, and practicability. The Committees also provide advice to the Department on pipeline safety and environmental issues. Each Committee is comprised of 15 members: six from the public, five from government, and four from the pipeline industry. Committee member are widely respected pipeline safety or technical experts. Committee members as of December 31, 1994, are listed in Table 1.

Advanced Notice of Proposed Rulemaking (ANPRM): In order to obtain information to study the need for potential future regulations, RSPA issued the following ANPRM:

Emergency Flow Restricting Devices (EFRDs)/ Leak Detection Systems. [Docket PS-133, Notice 1; 59 FR 2802; January 19, 1994.] This advance notice solicited public input for a survey on EFRD issues. The Pipeline Safety Law mandated that the Department issue regulations prescribing the circumstances under which operators must used EFRDs and other equipment used to detect and locate pipeline ruptures on hazardous liquid pipelines. The regulations are to be issued following a survey and assessment of the effectiveness of such equipment.

Proposed Rulemaking. In its continuing effort to improve and update existing regulation, RSPA issued the following Notices of Proposed Rulemaking (NPRM's) in 1994:

Customer-Owned Service Lines. [Docket PS-135, Notice 1; 58 FR 5168; February 3, 1994.] This proposed rulemaking is to require operators of gas distribution pipelines, who do not maintain customer-owned service lines, to advise their customers of the proper maintenance of these gas lines, and to inform their customers of the potential hazard of not properly maintaining these gas lines. This proposed rulemaking, in response to a statutory mandate, is intended to ensure that homeowners and other owners of customer-owned services are made aware of requirements for maintenance of those lines; the resources known to the operator that could properly aid the customer in doing such maintenance; any information that the operator has concerning the operation and maintenance of its service lines that could aid customer; and the potential hazards of not maintaining customer-owned service lines.

Customer-Owned Service Lines. [Docket PS-135, Notice 2; 59 FR 13300; March 21, 1994.] This supplemental notice relates to the above NPRM published on February 3, 1994. This supplemental notice clarifies that the proposed notification requirements apply to operators of gas transmission systems who do not maintain customer-owned service lines. The proposed notification requirements will also apply to above ground customer-owned service lines.

Qualification of Pipeline Personnel [Docket PS-94, Notice 2; 59 FR 39506; August 3, 1994.] This notice proposes qualification standards for personnel who perform, or directly supervise those persons performing regulated operation, maintenance, and emergency-response functions. This action would amend current standards for training personnel performing operating or maintenance activities on hazardous liquid and carbon dioxide pipelines, and extend those standards to personnel performing similar functions on gas pipelines. The notice was made to ensure that pipeline personnel have the knowledge and skills to competently perform their regulated functions.

Passage of Instrumented Internal Inspection Devices. [Docket PS-126; Notice 2; 59 FR 4989; September 30, 1994.] This notice was a Response to Petitions for Reconsideration of the April 12, 1994, final rule. The rule requires new and replacement pipeline facilities to be constructed to accommodate inspection by instrumented internal inspection devices commonly know as "smart pigs." In response to the two petitions received, this notice proposed to modify the rule with respect to replacements in gas transmission lines located in less populated areas; and replacements in gas transmission lines located offshore.

Final Rules: RSPA issued the following regulations in 1994:

Operation and Maintenance Procedures for Pipelines. [Docket PS-113; Amendment 192-71; 59 FR 6579; February 11, 1994.] This final rule established procedures to be followed in the operation and maintenance (O&M) of gas pipeline facilities. This action amended current standards by requiring regulated gas pipeline operators to include detailed procedures regarding normal and abnormal operation, maintenance, and emergency-response activities in the O&M manual. Operators are also required to review and update the manual each calendar year. Finally, this rule required regulated gas and hazardous liquid pipeline operators to prepare and follow procedures to safeguard personnel from the hazards associated with the unsafe accumulation of vapor or gas in excavated trenches.

Alcohol Misuse Prevention Program [Docket PS-128; Amendment 199-9; 59 FR 7426; February 15, 1994.] This final rule set forth regulation requiring operator of gas, hazardous liquid and carbon dioxide pipelines, and liquefied natural gas facilities subject to the pipeline safety regulations to implement alcohol misuse prevention program to employees who perform safety-sensitive functions. This rule requires testing under the following conditions: post-accident, reasonable suspicion, return-to-duty, and follow-up testing. This rule requires operators to remove employees who engage in prohibited alcohol conduct from safety-sensitive functions, and not permit them to return to their safety sensitive functions. Operators must provide covered employees with written materials that specifically identify the employees covered by the rule, explain the requirements of the rule, and establish the consequences of engaging in prohibited conduct. Operators must maintain records concerning their programs and report data regarding employee alcohol misuse to RSPA annually.

Passage of Instrumented Internal Inspection Devices. [Docket PS-126; Amendments 190-5, 192-72, 193-9, 195-50; 59 FR 17275; April 12, 1994.] This final rule amends the gas, hazardous liquid and carbon dioxide pipeline safety regulation to require that certain new and replacement pipelines be designed and constructed to accommodate the passage of instrumented internal inspection devices commonly called "smart pigs". This action was taken in response to the requirements of the Pipeline Safety Law. The intended effect of these regulations is to improve the safety of gas, hazardous liquid, and carbon dioxide pipelines by permitting their inspection by "smart pigs" which the latest technology for detecting and recording abnormalities in pipe walls.

Pressure Testing Older Hazardous Liquid and Carbon Dioxide Pipelines. [Docket PS-121; Amendment 195-51; 59 FR 29379; June 7, 1994.] This final rule states that operators may not transport a hazardous liquid in a steel interstate pipeline constructed before January 8, 1971, a steel interstate offshore gathering line constructed before August 1, 1977, or a steel intrastate pipeline constructed before October 21, 1985, unless the pipeline has been pressure tested hydrostatically according to current standards or operates at 80 percent or less of a qualified prior test or operating pressure. In addition, this rule created a comparable requirement for carbon dioxide pipelines constructed before July 12, 1991, with the exception of production field distribution lines in rural areas. The purpose of this final rule was to ensure that the affected pipelines have an adequate safety margin between their maximum operating pressure and test pressure. This safety margin is essential to prevention of particular kinds of pipeline accidents.

Regulatory Review: Hazardous Liquid and Carbon Dioxide Pipeline Safety Standards. [Docket PS-127; Amendment 195-52; 59 FR 33388; June 28, 1994.] This final rule amended miscellaneous hazardous liquid and carbon dioxide pipeline safety standards to provide clarity, eliminate unnecessary or overly burdensome requirements, and foster economic growth. The changes resulted from a regulatory review that RSPA carried out in response to the President's directive of January 28, 1992, on reducing the burden of government regulation. These changes reduce costs in the liquid pipeline industry without compromising safety.

Transportation of Hazardous Liquids at 20 Percent or Less of Specified Minimum Yield Strength. [Docket PS-117; Amendment 195-53; 59 FR 35465; July 12, 1994.] RSPA's hazardous liquid pipeline safety regulations do not apply to steel pipelines that operate at 20 percent or less of the specified minimum yield strength. This final rule extended the regulation to three groups of these pipelines: pipelines that transport highly volatile liquids, pipelines or pipeline segments in populated areas, and pipelines or pipeline segments in navigable waterways. The Pipeline Safety Law provides that DOT may not exclude hazardous liquid pipelines from regulation based solely on operation at low internal stress.

Pressure Testing Older Hazardous Liquid and Carbon Dioxide Pipelines. [Docket PS-121; Amendment 195-51A; 59 FR 41259; August 11, 1994.] RSPA published a final rule requiring the hydrostatic pressure testing of certain older hazardous liquid and carbon dioxide pipelines that were never pressure tested to current standards. The final rule also disallowed the use of petroleum as a pressure test medium. Because the prohibition on petroleum as a test medium was not specifically proposed, RSPA indicated it would withdraw that prohibition if it received comments that the prohibition was not in the public interest. RSPA received comments objecting to the prohibition and is therefore withdrawing the prohibition and allowing the use of petroleum as a test medium under specified conditions.

Random Drug Testing Program. [Docket 48498; 59 FR 62218; December 2, 1994.] In response to public comments, petitions submitted by industry, and on their own initiative, the operating administrations of the Department have revised their random drug testing rules. As revised, the rules provide that the Operating Administration (OA) may lower the minimum random drug testing rate to 25 percent if the industry-wide (e.g., aviation, rail) positive random testing rate is less than 1.0 percent for 2 calendar years while testing at 50 percent. The random testing rate will return to 50 percent if the industry wide random positive rates exceeds more than 1.0 percent for 2 calendar years.

For each transportation industry, the positive random testing rate will be calculated from data submitted to the OAs and announced yearly by the respective Administrator or the Commandant of the Coast Guard. Based on this revision, the random drug testing rate for the railroad and aviation industries is reduced by the Federal Railroad Administration and Federal Aviation Administration Administrators.

Alcohol Misuse Prevention Program. [Docket 49384; 59 FR 62234; Part 199; December 2, 1994.] On February 15, 1994, the Department published final alcohol testing rules, including a requirement that evidential breath testing devices be used to conduct alcohol testing. The Department also published a notice of proposed rulemaking seeking comment on whether blood testing should be used in very limited circumstances (i.e., for reasonable suspicion and post-accident tests, where evidential breath testing was not available). After reviewing the comments, the Department decided not to authorize blood testing as proposed. The Department's operating administration are amending their alcohol testing rules to require employers to submit to the Department, reports of reasonable suspicion and post-accident tests that could not be conducted because breath testing was unavailable.

Waiver Under the Act. In circumstances where absolute compliance with a pipeline safety regulation would not be appropriate and where sufficient alternative safeguards to the public safety are implemented, RSPA, at its discretion, may grant an operator's petition for a waiver from the regulations applicable to interstate pipeline transportation. There were no grants of waivers to interstate pipeline companies in 1994.

State Waivers: A state agency certified under the Pipeline Safety Law may waive compliance with a safety regulation applicable to intrastate pipeline transportation, if, after receiving notice, RSPA concurs in the action. RSPA approved the following petition for state waivers in 1994:

January 27, 1994: RSPA approved a waiver granted by the Virginia State Corporation Commission to Virginia Natural Gas Company from compliance with 49 CFR Part 193 for mobile Liquid Natural Gas (LNG) facilities. RSPA believed that the use of mobile LNG facilities under the alternate safety requirements would not be a danger to public safety.

April 20, 1994: RSPA approved a waiver granted by the Minnesota Office of Pipeline Safety to Minnegasco from compliance with 49 CFR Part 193 for mobile LNG facilities. RSPA believed that the use of mobile LNG facilities under the alternate safety requirements would not be a danger to public safety.

September 27, 1994: RSPA approved a waiver granted by The Massachusetts Department of Public Utilities to Bay State Gas Company, The Berkshire Gas Company, Blackstone Gas Company, Boston Gas Company, Colonial Gas Company, Commonwealth Gas Company, Essex County Gas Company, Fall River Gas Company, Fitchburg Gas & Electric Light Company, City of Holyoke Gas & Electric Department, Middleborough Gas and Electric Department, North Attleboro Gas Company, Wakefield Municipal Light Department, Westfield Gas and

Electric Light Department from compliance with 49 CFR Part 193 for mobile LNG facilities. RSPA believed that the use of mobile LNG facilities under the alternate safety requirements would not be a danger to public safety.

October 19, 1994: RSPA approved a waiver granted by the Michigan Public Service Commission to Consumers Power Company from compliance with 49 CFR Part 193 for mobile LNG facilities. RSPA believed that the use of mobile LNG facilities under the alternate safety requirements would not be a danger to public safety.

November 15, 1994: RSPA approved a waiver granted by Commonwealth of Pennsylvania Public Utility Commission to T.W. Phillips Gas and Oil Company from compliance with 49 CFR Part 193 for mobile LNG facilities. RSPA believed that the use of mobile LNG facilities under the alternate safety requirements would not be a danger to public safety.

Advisory Bulletins: RSPA uses Advisory Bulletins to inform affected pipeline operator and all Federal and state pipeline safety personnel of matters that have the potential of becoming safety and/or environmental risks. During 1994, RSPA issued the following bulletins:

January 18, 1994: ADB-94-01 informed owners and operators of natural and other gas pipeline facilities and hazardous liquids pipeline facilities concerning requirements to submit supplement to gas pipeline incidents and hazardous liquid pipeline accident reports as required by regulations, clarifies what should be included in estimated property damage, and cancels a previous interpretation regarding costs to be included in estimated property damage totals.

January 18, 1994: ADB-94-02 advised owners and operators of gas distribution facilities regarding the valve location and spacing requirement in § 192.181(a). It also informed of the availability of the Guide for Gas Transmission and Distribution Piping System prepared by the Gas Piping Technology Committee for help in establishing location for emergency valves.

March 1, 1994: ADB-94-03 informed pipeline operators and state pipeline safety program managers of pipelines that may be in a common right-of-way, in a parallel right-of-way, or cross the railroad right-of-way. This was done to ensure that railroad companies actively coordinate their emergency response activities with pipeline operators and state pipeline safety program managers, and also that they are to be involved in the development of plans for emergency response.

May 10, 1994: ADB-94-04 advised offshore pipeline facility operators and offshore producers of a National Transportation Safety Board recommendation to coordinate emergency planning and coordination between themselves and offshore producers.

Table 1

Membership Roster: Technical Pipeline Safety Standards Committee

Membership: (G) = Government; (I) = Industry; (P) = Public
(NOTE: As of 12/31/94, there were four vacancies)

Samuel Davis, Jr. (I)
General Manager
City of Tallahassee
2602 Jackson Bluff Road
Tallahassee, FL 32304

Kathleen Fournier (P)
Executive Director
MISS DIG Utility Communication System
1030 Featherstone Road
Pontiac, MI 48342-1830

John E. Gawronski (G)
Chief, Gas and Petroleum Safety
New York State Department of Public Service
Three Empire State Plaza
Albany, NY 12223

William R. Harper (I)
Consultant
4334 Wood Trace
Owensboro, KY 42303

Ted L. Jones (I)
Manager, Operations Control
Williams Natural Gas Company
P.O. Box 3288 Mail Drop 720B
Tulsa, OK 74101-3288

Mirna Urquidi-Macdonald (P)
Associate Professor of Engineering Science and Mechanics
The Pennsylvania State University
225A Hammond Building
University Park, PA 16802

David N. McMillan (G)
Chief, Division of Gas
New Jersey Board of Public Utilities
Two Gateway Center
Newark, NJ 07102

Richard J. Morgan (I)
Assistant Vice President
Steam Operations
Consolidated Edison Company of New York, Inc.
708 First Avenue, 8th Floor
New York, NY 10017

Jack M. Webb (P)
Attorney at Law
2028 Buffalo Terrace
Houston, TX 77109

Barbara Willis (P)
Logistic Coordinator
Institutional Products Division
Colgate-Palmolive Company
Rt. 1, Box 198 A
Fouke, AR 71837

Chris M. Zerby (G)
Environmental Engineer
Office of Pipeline Regulation
Federal Energy Regulatory Commission
825 North Capitol Street, NE., Room 7312-K
Washington, DC 20426

Membership Roster: Technical Hazardous Liquid Pipeline Safety Standards Committee

Membership: (G) = Government; (I) = Industry; (P) = Public
(NOTE: As of 12/31/94, there were two vacancies)

John M. Abboud (I)
Senior Vice President, Operations and Engineering
Santa Fe Pacific Pipelines, Inc.
888 S. Figueroa Street
Los Angeles, CA 90017

Michael R. Gonzalez (P)
Assistant Director
Planning and Program Development
Southwest Research Institute
6220 Culebra Road
San Antonio, TX 78228-0510

Cody L. Graves (G)
Vice Chairman
Oklahoma Corporation Commission
2101 North Lincoln Boulevard
Oklahoma City, OK 73105

Kerrie Howell (P)
Vice President, Civil and Corrosion Engineering
V&A Consulting Engineers
Suite 975, 1999 Harrison Street
Oakland, CA 94612

Chester Morris, Jr. (I)
Joint Ventures Manager
Mobil Pipe Line Company
2101 Elm Street
Dallas, TX 75270

Lisa M. Parker (P)
President
Parker Horn Company
P.O. Box 4433
Soldotna, AK 99669

Milton D. Randall (P)
Consulting Welding Engineer
12727 Campsite Trail
Cypress, TX 77429

Gary D. Robinson (P)
Vice President, Energy Development
Ecology and Environment, Inc.
368 Pleasantview Drive
Lancaster, NY 14086

Susan A. Robinson (I)
Manager, Health, Environment and Loss Protection
Chevron Pipe Line Company
Bishop Ranch No. 8
4000 Executive Parkway
San Ramon, CA 94583-0959

Table 1 (continued)

Membership Roster: Technical Hazardous Liquid Pipeline Safety Standards Committee, continued
Membership: (G) = Government; (I) = Industry; (P) = Public
(NOTE: As of 12/31/94, there were two vacancies)

Elaine I. Savage (P)
Consultant
Teltech
17 Agawam Road
Sharon, MA 02067

Eric P. Serna (G)
Chairman
New Mexico State Corporation Commission
P.O. Drawer 1269
Santa Fe, NM 87504-1269

Gary A. Smith (G)
Chief, Safety
Arizona Corporation Commission
1200 West Washington Street
Phoenix, AZ 85007

Jean Snider (G)
Interagency Liaison
Hazardous Materials Response and Assessment
National Oceanic and Atmospheric Admin.
c/o U.S. Coast Guard (G-MEP)
2100 2nd Street, S.W.
Washington, DC 20593

FEDERAL/STATE PARTNERSHIP

The Federal/state partnership is the cornerstone for assuring uniform implementation of the pipeline safety program nationwide. While the Federal Government is primarily responsible for developing, issuing, and enforcing minimum pipeline safety standards, Congress intended for states to take full and active safety jurisdiction over all intrastate pipelines. States clearly are at the front lines in delivering the pipeline safety program, being closer to the pipeline operators and the consumers of pipeline products than the Federal Government. Alone, neither the Federal Government nor the states can assure the proper level of pipeline safety in the country today. Together, Federal and state resources can be leveraged to deliver a cost-effective program that has one of the best safety records in transportation.

Natural Gas Pipeline Safety Program. The Pipeline Safety Law provides for a state agency to assume all aspects of the pipeline safety program for intrastate facilities under its jurisdiction if the state agency certifies annually that it complies with certain provisions. A state agency must adopt and enforce Federal safety standards established under the Pipeline Safety Law. The state must inspect pipeline operations on a periodic basis to ensure compliance with the regulations. The state must also have authority to require pipeline operators to maintain records, make reports, and file plans for inspection and maintenance. Additionally, the state must have injunctive and monetary sanctions substantially the same as provided under the Pipeline Safety Law.

The Pipeline Safety Law also permits a state agency that does not qualify for certification to undertake certain safety activities under an agreement with the Department, principally conducting periodic inspection of pipeline operators. The state must also establish procedures for approval of operator plans for inspection and maintenance and must maintain records and reports to assure pipeline operator compliance with Federal safety standards. In the event of a probable violation of the standards, the state must notify the Department, which initiates any enforcement action. If a state agency does not submit a certification or seek an agreement, all intrastate facilities within the state, and any category of intrastate facility not covered by a state certification or agreement, remain under the Department's safety jurisdiction.

The Department may also allow a state to act as its agent and inspect interstate pipelines traversing the state. To qualify as an agent, a state must demonstrate it is satisfactorily performing all responsibilities assigned under its certification for oversight of intrastate pipelines.

Beginning January 1, 1995, the Department will require existing agents to have safety jurisdiction over all intrastate pipelines to remain interstate agents. As an agent, a state must notify the Department of any probable violation discovered. However, the Department retains responsibility for taking appropriate enforcement action.

Table 2

1994 Natural Gas Pipeline Safety Grant Allocation

State	$ Allocation	State	$ Allocation
Alabama	218,232	Nevada	93,461
Arizona	223,331	New Hampshire	52,025
Arkansas	165,357	New Jersey	212,210
California	253,653	New Mexico	144,175
Colorado	144,534	New York	303,896
Connecticut	119,682	North Carolina	161,605
Delaware	15,860	North Dakota	32,880
District of Columbia	42,931	Ohio	221,298
Florida	44,385	Oklahoma	160,153
Georgia	200,214	Oregon	115,344
Illinois	193,733	Pennsylvania	189,631
Indiana	145,582	Puerto Rico	13,038
Iowa	123,524	Rhode Island	58,469
Kansas	220,786	South Carolina	84,917
Kentucky	179,510	South Dakota	32,813
Louisiana	212,773	Tennessee	201,456
Maryland	118,841	Texas	273,723
Massachusetts	204,742	Utah	99,776
Michigan	207,877	Vermont	47,627
Minnesota	239,326	Virginia	141,079
Mississippi	106,587	Washington	99,302
Missouri	197,323	West Virginia	184,044
Montana	29,130	Wisconsin	94,655
Nebraska	63,396	Wyoming	97,802

Subtotal	$6,786,688
State Travel Expenses	67,500
Total	$6,854,188

Table 3

States Participating in the Federal/State Cooperative Gas and Hazardous Liquid Pipeline Safety Program in 1994

NATURAL GAS PROGRAM

STATE AGENCIES UNDER 5(a) CERTIFICATION (48)

Alabama	Indiana	Montana	Pennsylvania
Arizona	Iowa	Nebraska	Puerto Rico
Arkansas	Kansas	Nevada	Rhode Island
California	Kentucky	New Hampshire	South Carolina
Colorado	Louisiana	New Jersey	Tennessee
Connecticut	Maine	New Mexico	Texas
District of Columbia	Maryland	New York	Utah
Florida (Public Service Commission)	Massachusetts	North Carolina	Vermont
Florida (State Treasurer - LP Gas Division)	Michigan	North Dakota	Virginia
Georgia	Minnesota	Ohio	Washington
Hawaii	Mississippi	Oklahoma	West Virginia
Illinois	Missouri	Oregon	Wisconsin
			Wyoming

STATE AGENCIES UNDER 5(b) AGREEMENT (3)

Delaware	Kentucky (Municipals)	Wyoming (Intrastate Transmission Lines)

STATE AGENCIES ACTING AS INTERSTATE AGENTS (11)

Arizona	Michigan	Ohio	West Virginia
Connecticut	Minnesota	Rhode Island	Iowa
Nevada	Utah		

HAZARDOUS LIQUID PROGRAM

STATE AGENCIES UNDER 205(a) CERTIFICATION (9)

Alabama	Louisiana	Oklahoma
Arizona	Minnesota	Texas
California (Fire Marshal)	New York	West Virginia

STATE AGENCY UNDER 205(b) AGREEMENT (2)

Mississippi	New Mexico

STATE AGENCIES ACTING AS INTERSTATE AGENTS (3)

Arizona	California (Fire Marshal)	Minnesota

Table 4

1994 Hazardous Liquid Pipeline Safety Grant Allocation

State	$ Allocation	State	$ Allocation
Alabama	20,391	New Mexico	14,450
Arizona	38,859	New York	27,061
California (FM)	203,164	Oklahoma	71,163
Louisiana	120,745	Texas	126,114
Minnesota	99,002	West Virginia	29,798
Mississippi	3,330		

Subtotal	$754,077
State Travel Expenses	7,500
Total	$761,577

Each state agency participating in the pipeline safety program is eligible for grant funding of up to 50 percent of personnel, equipment, and activity costs associated with carrying out its program (see Table 2 on page 13). The amount of funding available in any given year depends upon the congressional appropriations process. Since 1981, appropriations have not been adequate to cover state requests for grant funds, and the Department developed a formula to allocate available funds to support state programs. Performance factors used for allocating funds in 1994 included: amount of state request; extent of state jurisdiction over intrastate operators; number and qualification of inspectors; number of inspection person-days; and existence of an underground utility damage prevention law.

In 1994, Congress appropriated $7,615,765 for pipeline safety grant funding. The Department allocated a total of $6,854,188 to state agencies participating in the gas program (90 percent of the appropriation was assigned to natural gas pipeline activities and 10 percent to hazardous liquid pipeline activities) (see Table 2 on page 13). Funding in 1994 covered an average of 34 percent of overall state requests for grant funds to defray gas program costs.

States have overwhelmingly supported the concept of common stewardship in gas pipeline safety. In 1994, 48 state agencies, including the District of Columbia, and Puerto Rico, held certifications, and 3 state agencies operated all or parts of their gas safety programs under agreements (see Table 3 on page 14). Additionally, 11 state agencies acted as agents on behalf of the Department for inspecting interstate gas pipelines. Three states did not participate in the program: Alaska, Idaho and South Dakota.

Hazardous Liquid Pipeline Safety Program. The Pipeline Safety Law provides for state participation in regulating the safety of pipelines transporting hazardous liquids under a certification or an agreement. At present, fewer states participate in the hazardous liquid program than in the gas program, reflecting the fact that the number of miles of liquid lines is significantly lower than the number of miles of gas lines.

Table 5

1994 State Natural Gas Pipeline Safety Personnel

State	Supervisory		Technical		Clerical	
	Number	Person Yrs.	Number	Person Yrs.	Number	Person Yrs.
AL PSC	1	0.97	6	5.64	1	0.98
AR PSC	1	0.58	5	4.16	1	0.50
AZ CC	3	0.99	12	8.57	1	1.00
CA PUC	6	2.84	14	6.89	3	1.90
CO PUC	1	0.50	3	3.00	2	0.80
CT DPUC	2	0.45	3	2.75	1	0.20
DC PSC	1	0.02	2	1.02	1	0.10
DE PSC	1	0.10	2	0.76	1	0.05
FL PSC	1	0.50	6	4.28	1	0.50
FL LPG	3	0.18	4	1.05	3	0.45
GA PSC	2	1.33	5	5.00	1	8.00
IA DC	1	0.16	5	2.25	0	0.00
IL CC	2	1.02	7	6.12	1	1.00
IN PSC	1	1.00	4	3.08	0	0.00
KS CC	1	0.50	9	8.33	1	1.00
KY PSC	2	1.75	4	3.06	1	0.75
LA DNR	3	1.58	13	8.82	3	1.25
MA DPU	1	1.00	5	5.00	2	2.00
MD PSC	2	0.37	4	2.76	1	0.60
MI PSC	2	1.13	3	2.66	1	0.72
MN OPS	5	1.62	8	4.23	2	1.60
MO PSC	2	1.12	7	7.00	1	0.52
MS PSC	1	0.99	3	2.98	1	0.99
MT PSC	1	0.05	2	0.12	1	1.10
NC UC	1	1.00	3	3.00	1	1.00
ND PSC	1	0.10	2	0.34	1	0.01
NE SFM	1	1.00	2	2.00	1	0.50
NH PUC	1	0.56	2	0.31	1	1.00
NJ BRC	4	1.14	5	3.38	1	1.07
NM SCC	1	1.30	3	3.00	1	1.00
NV PSC	1	0.06	3	1.81	2	0.35
NY PSC	10	6.91	27	18.05	5	4.50
OH PUC	3	1.30	8	7.92	3	1.00
OK CC	1	0.64	8	3.13	1	0.80
OR PUC	1	0.35	2	1.26	1	0.40
PA PUC	1	0.25	6	5.25	1	1.00

Table 5 (continued)

State	Supervisory		Technical		Clerical	
	Number	Person Yrs.	Number	Person Yrs.	Number	Person Yrs.
PR PSC	1	0.25	1	0.25	0	0.00
RI DPU	1	0.16	2	0.78	1	0.05
SC PSC	2	0.40	3	2.64	1	0.80
SDPUC	1	0.00	2	0.54	4	0.05
TN PSC	1	0.81	5	4.01	1	1.00
TX RC	10	3.26	28	16.81	13	11.05
UT DC	1	0.41	2	2.00	1	0.60
VA SCC	1	0.31	4	2.98	3	0.15
VT DPS	1	0.04	1	0.64	0	0.00
WA UTC	2	0.09	3	1.89	1	0.30
WI PSC	3	0.28	4	2.28	3	0.13
WV PSC	2	0.29	6	4.37	1	0.80
WY PSC	1	0.07	3	1.03	0	0.00
Total	99	41.73	271	189.20	79	53.57

1994 State Hazardous Liquid Pipeline Safety Personnel

State	Supervisory		Technical		Clerical	
	Number	Person Yrs.	Number	Person Yrs.	Number	Person Yrs.
AL PSC	1	0.02	6	0.12	1	0.02
AZ CC	1	0.01	5	0.21	0	0.00
CA SFM	1	1.00	5	5.00	4	3.00
LA DNR	2	0.20	2	1.71	2	0.90
MN OPS	3	0.34	4	0.48	2	0.40
MS PSC	1	0.10	1	0.1	1	0.10
NM SCC	0	0.00	0	0	0	0.00
NY PSC	9	0.05	10	0.06	4	0.10
OK CC	1	0.04	6	1.62	1	0.20
TX RC	10	0.10	28	0.57	13	1.95
WV PSC	2	0.01	2	0.04	1	0.20
TOTAL	31	1.87	69	9.91	29	6.87

In 1994, a total of 11 state agencies participated in the hazardous liquid program -- 9 state agencies held certifications and two states operated under an agreement. Furthermore, three of these states also acted as agents on behalf of the Department for inspecting interstate hazardous liquid lines (see Table 3 on page 14). In 1994, the Department allocated a total of $761,577 to state agencies participating in the liquid program, covering an average of 29 percent of state costs (see Table 4 on page 15).

State Pipeline Safety Personnel. One of the major state uses of Federal grant funds is for defraying personnel costs. As of December 31, 1994, the states reported a nationwide complement of 271 safety inspectors (working 189 person years) in the gas program and 69 inspectors (working 10 person years) in the liquid program (see Table 5 on pages 16-17). About twenty percent of the state gas inspectors have engineering degrees from accredited engineering schools or are registered professional engineers, and

have a minimum of three years experience as state or Federal pipeline inspecting gas or liquid operators for compliance with state and Federal pipeline safety regulations. In addition, they have completed all the applicable TSI training (or received an exemption) (see Table 6 on pages 19-20).

Improving State Program Performance. The Department is committed to moving toward full 50 percent funding of eligible state program costs on a phased basis, tied to improved state performance. Initially, in distributing funds, the Department placed emphasis on assisting states to establish their pipeline safety programs. The Department has shifted attention to assisting states to enhance program performance. A state's performance would be based on the results of RSPA's annual field evaluation (assessing operating practices; quality of state inspections, investigations, and enforcement actions; and adequacy of record keeping) and selected information provided in the state's annual certification/agreement (e.g., extent of safety jurisdiction, inspector qualifications, number of inspection person-days, adoption of applicable regulations).

Two critical performance factors are: (1) state assumption of safety jurisdiction over **all** intrastate pipelines, and (2) adoption of minimum one-call notification system requirements. Some state agencies continue to have difficulty in obtaining the necessary legislative authority to comply with these requirements. In several instances, RSPA staff has met with key state officials to increase awareness of the pipeline safety program and encourage state assumption of additional jurisdiction and/or adoption of one-call requirements.

As a result of increasing emphasis, a number of states have taken steps to expand their jurisdiction over intrastate pipelines, including municipal, master meter, and LPG systems. By the end of 1994, states reported they had jurisdiction over a total of 10,750 gas pipeline operators with 13,314 pipeline inspection units and 318 hazardous liquid pipeline operators with 488 pipeline inspection units (see Table 7 on pages 21-22).

A number of states strengthened their damage prevention programs during 1994 to comply with minimum Federal requirements for one-call notification systems. Outside force damage is the leading cause of pipeline safety accidents--accounting for 56 percent of gas distribution, 29 percent of gas transmission and gathering, and 24 percent of hazardous liquid incidents reported to RSPA in 1994. One-call systems serve as critical switching centers for excavators to notify pipeline and other underground facility operators of their intent to use equipment for digging, tunneling, demolition, or similar work. Congress explicitly prescribed the minimum requirements for establishing and operating one-call notification systems in the Pipeline Safety Law, including:

- complete coverage of areas in states having pipeline facilities;
- compliance with operating requirements (system management, record keeping, etc.);
- excavator notification to one-call system of intent to dig;
- intrastate pipeline operator participation in one-call system;
- pipeline operator response to notices of intended excavation activity (e.g., marking location of pipeline);
- notification of excavators and public availability and use of one-call system; and
- authority to enforce sanctions for violation of one-call requirements.

Table 6

1994 Natural Gas State Inspector Qualifications

STATE	CAT I	CAT II	CAT III	CAT IV	CAT V	TOTAL
AL PSC	0	6	0	0	0	6
AR PSC	1	3	1	0	0	5
AZ CC	0	11	0	0	1	12
CA PUC	11	0	3	0	0	14
CO PUC	2	0	1	0	0	3
CT DPUC	1	0	2	0	0	3
DC PSC	0	1	1	0	0	2
DE PSC	1	0	1	0	0	2
FL PSC	0	5	1	0	0	6
FL LPG	0	4	0	0	0	4
GA PSC	0	4	0	1	0	5
IA DC	2	2	1	0	0	5
IL CC	0	6	1	0	0	7
IN PSC	0	3	1	0	0	4
KS CC	2	6	1	0	0	9
KY PSC	0	4	0	0	0	4
LA DNR	0	13	0	0	0	13
MA DPU	2	3	0	0	0	5
MD PSC	0	2	2	0	0	4
MI PSC	2	0	1	0	0	3
MN OPS	4	4	0	0	0	8
MO PSC	3	4	0	0	0	7
MS PSC	0	1	1	1	0	3
MT PSC	1	1	0	0	0	2
NC UC	0	1	0	1	1	3
ND PSC	0	1	1	0	0	2
NE SFM	0	1	1	0	0	2
NH PUC	1	0	1	0	0	2
NJ BRC	4	0	1	0	0	5
NM SCC	2	1	0	0	0	3
NV PSC	2	0	1	0	0	3
NY PSC	1	13	11	1	1	27
OH PUC	1	5	2	0	0	8
OK CC	0	6	1	0	1	8
OR PUC	0	1	1	0	0	2
PA PUC	3	2	1	0	0	6
PR PSC	0	1	0	0	0	1
RI PUC	0	0	0	2	0	2

Table 6 (continued)

STATE	CAT I	CAT II	CAT III	CAT IV	CAT V	TOTAL
SC PSC	0	3	0	0	0	3
SD PUC	0	2	0	0	0	2
TN PSC	4	1	0	0	0	5
TX RC	8	11	2	7	0	28
UT DBR	0	1	1	0	0	2
VA SCC	2	1	1	0	0	4
VT DPS	0	1	0	0	0	1
WA UTC	0	3	0	0	0	3
WI PSC	2	0	2	0	0	4
WV PSC	0	5	0	1	0	6
WY PSC	1	2	0	0	0	3
Total	63	145	45	14	4	271

1994 Hazardous Liquid State Inspector Qualifications

STATE	CAT I	CAT II	CAT III	CAT IV	CAT V	TOTAL
AL PSC	0	6	0	0	0	6
AZ CC	0	5	0	0	0	5
CA SFM	2	1	1	1	0	5
LA DNR	0	2	0	0	0	2
MN OPS	2	2	0	0	0	4
MS PSC	0	0	1	0	0	1
NM SCC	0	0	0	0	0	0
NY PSC	1	6	2	0	1	10
OK CC	0	4	1	0	1	6
TX RC	8	11	2	7	0	28
WV PSC	0	2	0	0	0	2
TOTAL	13	39	7	8	2	69

CATEGORY:

I Have engineering degrees from accredited engineering schools or are registered professional engineers, and have a minimum of 3 years experience with gas or liquid pipelines or the enforcement of pipeline safety regulations at state or Federal level. In addition, have completed all applicable training at TSI or received an exemption.

II Have engineering degrees from accredited engineering schools, are registered professional engineers, or have a minimum of 5 years experience as state or Federal pipeline inspectors monitoring gas or liquid operators for compliance with state and Federal pipeline safety regulations. Have completed all applicable TSI training, or have 10 years experience and have completed half the applicable training.

III Have college degrees or minimum of 5 years' experience in gas or liquid pipelines.

IV Have less than 5 years' experience as state pipeline inspectors.

V Have less than 1 year experience as state pipeline inspector.

Table 7

1994 State Agency Inspection Activity - Natural Gas

STATE	OPER-ATOR (S)	OPERATORS INSPECTED	INSPECTION UNITS	INSPECTION UNITS INSPECTED	INSPEC-TORS	PERSON YEARS	INSPECTIONS MADE PER-SON DAYS	PROBABLE VIOLATIONS	COMPLIANCE ACTIONS TAKEN	INCIDENTS LISTED ON CERT/AGR.
AL PSC	234	234	309	309	6	5.64	1,122.5	173	95	3
AR PSC	502	96	664	160	5	4.16	489.0	294	92	0
AZ CC	1,256	834	1,280	858	12	8.57	1,648.5	2,890	55	0
CA PUC	2,861	571	2,999	681	14	6.89	1,115.0	2,144	515	13
CO PUC	114	100	171	147	3	3.00	353.5	130	32	5
CT DPUC	9	9	31	31	3	2.75	260.0	136	19	2
DC PSC	1	1	5	5	2	1.02	175.0	4	4	8
DE PSC	11	11	15	15	2	0.76	96.0	0	0	
FL PSC	62	61	80	77	6	4.28	678.0	85	34	4
FL LPG	80	79	329	326	4	1.05	449.0	388	45	0
GA PSC	217	181	263	219	5	5.00	775.0	124	38	3
IA DC	65	39	111	54	5	2.25	480.0	462	54	6
IL CC	120	111	186	159	7	6.12	528.0	13	28	10
IN PSC	103	103	207	183	4	3.08	496.0	28	28	2
KS CC	183	180	227	213	9	8.33	980.1	235	78	0
KY PSC	220	91	262	104	4	3.06	384.0	139	40	2
LA DNR	370	310	455	379	13	8.82	978.0	298	86	4
MA DPU	15	15	43	36	5	5.00	670.0	42	4	5
MD PSC	96	81	109	94	4	2.76	284.0	242	66	12
MI PSC	40	404	104	104	3	2.66	259.0	51	0	3
MN OPS	45	45	71	61	8	4.23	561.0	425	46	4
MO PSC	64	56	103	92	7	7.00	574.0	326	95	4
MS PSC	157	120	201	181	3	2.98	403.0	135	12	1
MT PSC	70	69	82	76	2	0.12	56.0	38	12	0
NC UC	46	46	86	87	3	3.00	386.3	98	44	0
ND PSC	22	22	28	28	2	0.34	85.0	8	4	1
NE SFM	27	7	47	18	2	2.00	176.0	45	9	1
NH PUC	8	7	14	10	2	0.31	62.0	14	2	0
NJ BRC	67	24	91	44	5	3.38	454.0	21	22	9
NM SCC	270	153	342	203	3	3.00	194.0	145	82	0
NV PSC	45	33	55	42	3	1.81	189.0	147	37	1
NY PSC	86	35	160	100	27	18.05	4,519.0	1,335	16	3
OH PUC	278	38	408	94	8	7.92	1,016.0	120	37	6
OK CC	156	80	225	96	8	3.13	406.0	637	90	3
OR PUC	14	11	20	13	2	1.26	138.0	60	17	0
PA PUC	36	36	130	130	6	5.25	720.0	593	74	12
PR PSC	1	1	2	2	1	0.25	43.0	2	0	0

Table 7 (continued)

STATE	OPER-ATOR (S)	OPERATORS INSPECTED	INSPECTION UNITS	INSPECTION UNITS INSPECTED	INSPEC-TORS	PERSON YEARS	INSPECTIONS MADE PER-SON DAYS	PROBABLE VIOLATIONS	COMPLIANCE ACTIONS TAKEN	INCIDENTS LISTED ON CERT/AGR.
RI PUC	14	12	16	12	2	0.78	219	11	7	1
SC PSC	31	31	43	43	3	2.64	421	75	59	1
SD	23	0	0	0	2	0.54	0	0	0	0
TN PSC	190	190	210	210	5	4.01	423	262	83	1
TX RC	1,582	722	1,997	981	28	16.81	2269	3,502	702	60
UT DBR	623	111	661	126	2	2.00	243	289	0	1
VA SCC	9	9	31	31	4	2.98	327	12	6	3
VT DPS	40	27	40	18	1	0.64	99	17	7	0
WA	26	25	44	33	3	1.89	220	361	0	0
WI PSC	13	13	63	33	4	2.28	148	82	13	0
WV PSC	204	32	230	56	6	4.37	497	7	0	5
WY PSC	44	37	64	34	3	1.03	123	42	42	0
Total	10,750	5,503	13,314	7,008	271	189.20	27191.96	16,687	2,831	199

1994 State Agency Inspection Activities - Hazardous Liquid

STATE	OPER-ATOR (S)	OPERATORS INSPECTED	INSPECTION UNITS	INSPECTION UNITS INSPECTED	INSPEC-TORS	PERSON YEARS	INSPECTIONS MADE PER-SON DAYS	PROBABLE VIOLATIONS	COMPLIANCE ACTIONS TAKEN	INCIDENTS LISTED ON CERT/AGR.
AL PSC	3	3	3	3	6	0.12	19	4	2	0
AZ CC	6	6	7	7	5	0.21	87	0	0	0
CA SFM	79	76	104	71	5	5.00	486	43	19	14
LA DNR	31	31	42	41	2	1.71	173	105	17	0
MN OPS	8	8	18	12	4	0.48	112	1	1	7
MS PSC	2	2	2	2	1	0.10	9	2	0	0
NM SCC	1	0	1	0	0	0	0	0	0	0
NY PSC	11	9	11	9	10	0.06	122	0	0	0
OK CC	13	11	51	19	6	1.62	194	119	17	3
TX RC	163	96	248	143	28	0.57	467.2	357	84	6
WV PSC	1	1	1	1	2	0.04	22	0	0	0
TOTAL	318	243	488	308	69	9.91	1,691	631	140	30

Some of these inspectors also inspect gas pipeline operators and are also counted in the complement of 271 gas inspectors.

NARUC/NAPSR. The Department coordinates closely with the National Association of Regulatory Utility Commissioners (NARUC) and the National Association of Pipeline Safety Representatives (NAPSR). These two organizations, representing state interests in pipeline safety matters, hold meetings during the year and adopt resolutions to surface pipeline safety concerns of national significance.

NARUC is an organization of governmental agencies engaged in the regulation of utilities spanning the areas of communication, electricity, energy, gas and oil, and motor carriers. The objective of NARUC is to serve the consumer interest by seeking to improve the quality and effectiveness of public regulation in America. NARUC, through its Staff Subcommittee on Pipeline Safety under the Committee on Gas, provides RSPA

a two-way communication channel with state public utility commissioners (or their equivalents) and state pipeline safety program managers.

NAPSR is an organization of state gas pipeline safety program managers, inspectors, and technical personnel who support and work to enhance pipeline safety. Each year, NAPSR holds national and regional meetings to promote information exchange and innovative approaches for implementing the pipeline safety program. During 1994, NAPSR submitted two resolutions: (1) recognizing the California State Fire Marshal representative for his contribution to the program; and (2) that environmental program concerns not be pursued at the expense of the human safety concerns of the pipeline safety program.

COMPLIANCE

Achieving operator compliance with the pipeline safety regulations is important in preventing accidents. Accordingly, RSPA has increased emphasis on those components of the overall pipeline safety programs which contribute significantly to compliance, including operator inspections, compliance actions, state oversight, and accident investigations. The five pipeline safety Regional Offices constitute the backbone of RSPA's compliance efforts. OPS continued decentralization, allowing RSPA, through its Regional Offices, to be more responsive to operational problems. This has led to improved regional/operator relations, more efficient utilization of resources, and ready availability of expertise to address unique state/regional safety and environmental concerns.

Risk-Based Pipeline Inspection Plan. The most fundamental way to assure compliance is through periodic inspection of pipeline operations. RSPA regional staff inspect interstate gas and hazardous liquid pipeline systems, as well as the intrastate facilities under direct Federal jurisdiction, such as certain municipal and master meter gas systems that are not regulated by a state agency, or intrastate gas and liquid facilities in states where a state agency is not participating in the program.

RSPA continued to use its risk-based pipeline inspection plan for scheduling unit inspections prioritized by risk. In determining the priority of inspections, RSPA considers existing safety problems; population density; known environmental sensitivity of unit areas; results of past inspections; analysis of safety-related condition reports filed by operator; length of time since last inspection; and Pipeline Inspection Priority Program (PIPP) rankings.

PIPP rankings are based upon operator-supplied information such as proportion of pipeline without corrosion protection, leak repair history, and pipeline material (cast iron pipe and poly vinyl chloride (PVC) and acrylonitrile-butadiene-styrene (ABS) plastic pipe present greater risk). PIPP rankings also reflect RSPA inspection results and enforcement actions.

The risk-based inspection plan enables Regional Offices to allocate their limited inspection resources based on risk. The inspection plan also has built-in flexibility which allows RSPA to devote more time to such critical activities as new construction follow-up, drug testing inspections, and additional accident investigations.

Inspection Activity. In 1994, RSPA's regional staff expended a total of 822 person-days inspecting 267 natural gas and 189 hazardous liquid inspection units. The state agencies expended 28,883 person-days inspecting 7,008 natural gas and 308 hazardous liquid inspection units (see Table 8 on page 25).

Compliance Actions. RSPA has a variety of compliance actions available to address a probable violation of the pipeline safety regulations. These actions, depending on the circumstances, range from issuing a warning letter to issuing a hazardous facility order requiring immediate suspension of operations or restricted use of a facility.

In 1994, RSPA opened 210 compliance actions against gas and hazardous liquid pipeline operators found to be in violation of the pipeline safety regulations. In addition, RSPA collected penalties totalling $600,450 (see Table 8 on page 25). The state agencies initiated 2,831 natural gas and 140 hazardous liquid compliance actions.

Accident Investigations and State Oversight. RSPA staff investigate selected pipeline accidents to determine if the regulations have been violated and whether revisions or additions to the regulations are needed. In addition to inspecting interstate pipeline operators, RSPA regional staff also oversee the intrastate natural gas and hazardous liquid pipeline safety programs of state agencies participating in the Federal/state program, as well as the programs of those state agencies acting as agents for RSPA to inspect interstate operators.

Table 8

1994 Inspection and Compliance Profile

Inspection Profile		
Program	# Inspection Units Inspected	Person Days Spent on Inspections
OPS Hazardous Liquid	189	337
OPS Natural Gas	267	485
State Hazardous Liquid	308	1,691
State Natural Gas	7,008	27,192

Compliance Actions Taken				
Program	Compliance Action Initiated	Hazardous Facility Orders Issued	Penalties Collected	
			No.	Amount
OPS Hazardous Liquid/Natural Gas	210	9	45	$600,540
State Hazardous Liquid	140	N/A	- -	N/A
State Natural Gas	2,831	N/A	- -	N/A

ACCIDENTS AND INVESTIGATIONS

The requirements and criteria for reporting gas pipeline incidents are contained in 49 CFR Part 191. Subpart B of Part 195 includes regulations for reporting hazardous liquid pipeline accidents. These regulations define damage thresholds, exclusions, and reporting requirements. RSPA maintains data reported by pipeline operators on incidents and accidents in the Integrated Pipeline Information System (IPIS). IPIS is the primary tool for storing, retrieving, and analyzing pipeline safety data. IPIS provides operational and statistical information necessary to perform failure and cost-benefit analyses, as well as various other studies supporting rulemaking, enforcement, and research.

Natural Gas Pipeline Incident Data. Criteria for the submission of written incident reports by natural gas distribution, transmission, and gathering operators requires reports on all incidents, involving a release of gas and either: (1) a death or personal injury

Table 9

1994 Natural Gas Transmission and Gathering Pipeline Incidents Reported by Cause

Cause	Incidents	Property Damage	Fatalities	Injuries
Construction/Material Defect	9	$342,647	0	2
Damage by Outside Forces	23	$32,127,680	0	16
External Corrosion	13	$2,028,835	0	1
Internal Corrosion	20	$2,632,812	0	0
Other	15	$8,038,319	0	0
Total	80	$45,170,293	0	19

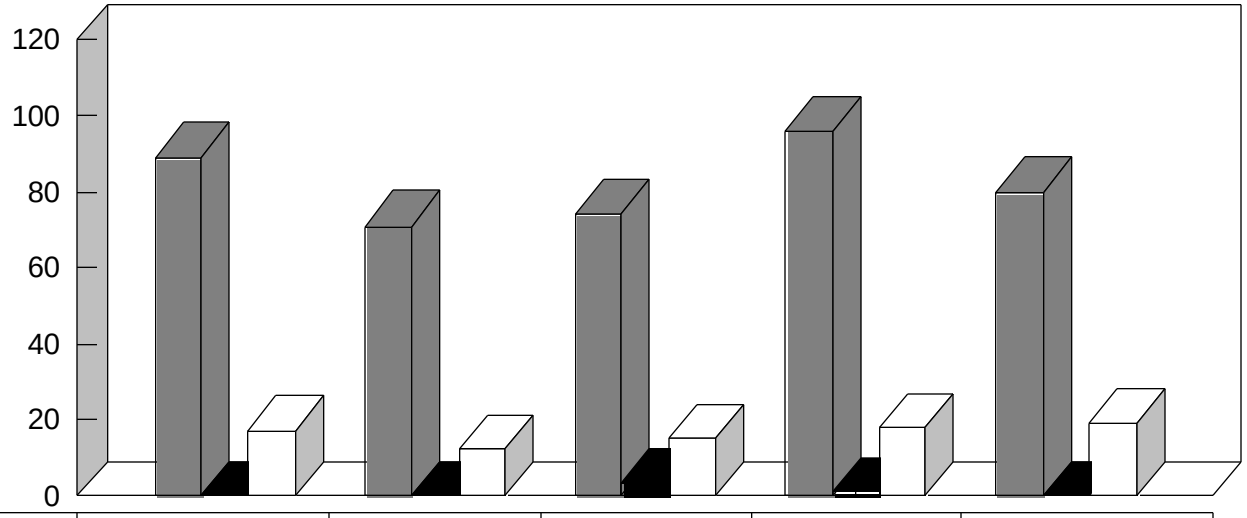
Table 10

1994 Natural Gas Distribution Pipeline Incidents Reported by Cause

Cause	Incidents	Property Damage	Fatalities	Injuries
Accidently Caused by Operator	10	$130,000	0	7
Construction/Material Defect	13	$139,000	0	10
Damage by Outside Forces	79	$10,931,166	11	57
External Corrosion	5	$3,300,000	0	2
Internal Corrosion	0	$0	0	0
Other	34	$38,760,000	10	15
Total	141	$53,260,166	21	91

Table 11

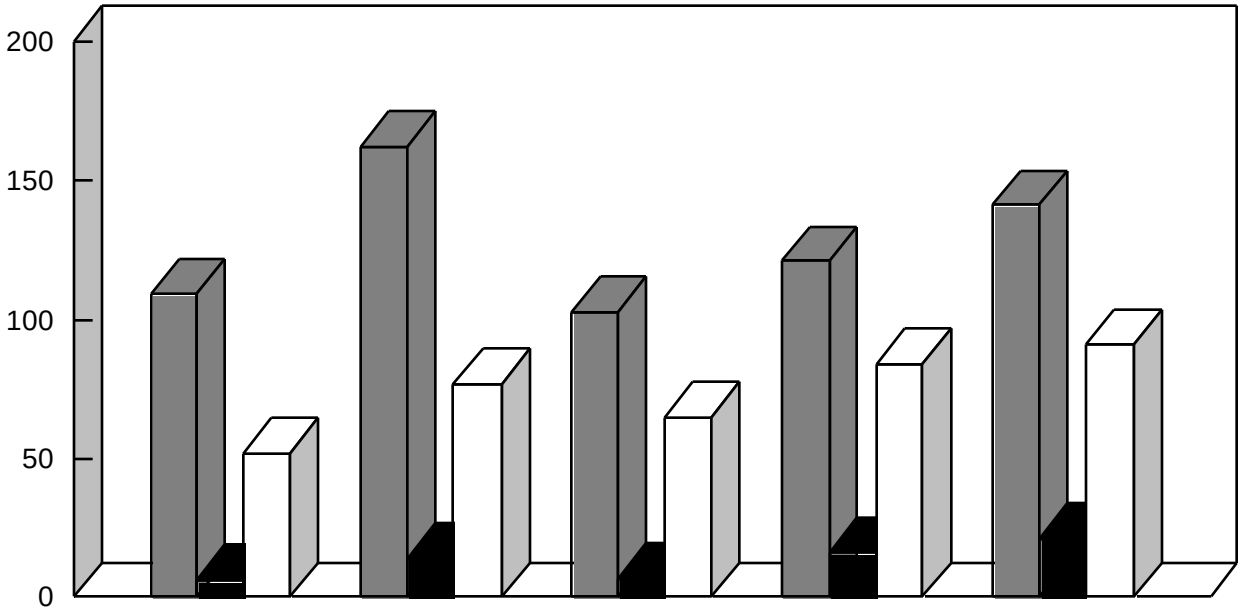
Summary of Natural Gas Transmission & Gathering Pipeline Failures, Fatalities, and Injuries (1990-1994)



Year	1990	1991	1992	1993	1994
Failures	89	71	74	96	80
Fatalities	0	0	3	1	0
Injuries	17	12	15	18	19

Table 12

Summary of Natural Gas Distribution Pipeline Failures, Fatalities, and Injuries (1990-1994)



Year	1990	1991	1992	1993	1994
Failures	109	162	103	121	141
Fatalities	6	14	7	16	21
Injuries	52	77	65	84	91

necessitating in-patient hospitalization, or (2) estimated property damage of $50,000 or more. Reports are not required for master meter systems or LNG facilities.

During 1994, natural gas transmission and gathering pipeline operators reported 80 incidents, involving no fatalities, 19 injuries, and $45,170,293 of property damage. Natural gas distribution pipeline operators reported 141 incidents, resulting in 21 fatalities, 91 injuries, and $53,260,166 of property damage. Of the 221 total gas incidents, 102 (46 percent) were attributed to damage by outside forces. This is a decrease from 1993, when 50 percent of all gas incidents were caused by outside force damage (see Tables 9 and 10 on page 26). Total gas incidents that occurred in 1994 reflect the average of the preceding 4 years (221) (see Tables 11 and 12 on page 27).

Hazardous Liquid Pipeline Accident Data. A reportable accident for hazardous liquids is a release of hazardous liquid and either: (1) an explosion or fire not intentionally set by the operator, (2) loss of 50 or more barrels of product, (3) escape to the atmosphere of more than five barrels a day of highly volatile liquid (HVL), (4) death or bodily harm to any person, or (5) estimated property damage exceeding $50,000. During 1994, hazardous liquid pipeline operators reported a total of 244 accidents, resulting in one fatality, 1858 injuries (see Tables 13 and 14 on page 29), $56,453,604 of property damage, and a release of 161,171 barrels of product. Of the 244 hazardous liquid accidents, 57 (23 percent) were attributed to damage by outside forces and 47 (19 percent) were attributed to corrosion (external and internal). Hazardous liquid accidents were somewhat higher in 1994 than the average of the preceding 4 years (244 vs. 210). Injuries registered a significant increase in 1994 over the average of the preceding 4 years (see Table 15 on page 30).

Table 13
1994 Hazardous Liquid Pipeline Accidents Reported by Cause

Cause	Accidents	Barrels Lost	Property Damage	Fatalities	Injuries
Equipment Malfunction	22	8,285	$1,159,517	0	1
External Corrosion	38	12,579	$1,833,043	0	0
Failed Pipe	11	6,744	$2,154,000	0	0
Failed Weld	21	11,804	$4,320,680	0	0
Incorrect Operation	8	2,300	$15,600	0	0
Internal Corrosion	10	1,074	$282,000	0	0
Other	77	28,896	$11,095,251	1	4
Outside Force Damage *	57	89,489	$35,593,513	0	2
Total	244	161,171	$56,453,604	1	7

* In addition, there were 1851 people injured from mostly minor burns and vapor inhalation from the failure and ignition of seven hazardous liquid pipelines during floods in mid-October in the San Jacinto River near Houston, Texas.

Table 14
1994 Summary of Liquid Pipeline Accidents Reported by Commodity

Commodity	# Incidents	% of Total	Barrels Lost	Property Damage	% of Total	Fatalities	Injuries
Anhydrous Ammonia	13	5.33	155	$54,117	0.1	0	0
Carbon Dioxide	3	1.23	6	$51,696	0.09	0	0
Condensate	4	1.64	4,220	$305,000	0.54	0	1
Crude Oil	93	38.11	43,090	$24,745,488	43.83	0	2
Diesel Fuel *	13	5.33	17,029	$3,088,025	5.47	0	0
Fuel Oil	13	5.33	2,844	$1,591,610	2.82	0	0
Gasoline *	39	15.98	39,832	$14,812,374	26.24	0	1
Jet Fuel	3	1.23	727	$55,000	0.1	0	0
Kerosene	4	1.64	4,979	$56,500	0.1	0	0
L.P.G.	17	6.97	18,950	$2,865,036	5.08	1	1
Natural Gas Liquid	14	5.74	19,767	$1,185,075	2.1	0	0
Oil and Gasoline	8	3.28	3,835	$383,070	0.68	0	0
Turbine Fuel	2	0.82	900	$32,000	0.06	0	0
Various Petrol Prod	4	1.64	302	$2,074,593	3.67	0	0
Not Given	14	5.74	4,535	$5,154,020	9.13	0	2
Total	244	100.00	161,171	$56,453,604	100.00	1	7

* In addition, there were 1851 people injured from mostly minor burns and vapor inhalation from the failure and ignition of seven hazardous liquid pipelines during floods in mid-October in the San Jacinto River near Houston, Texas.

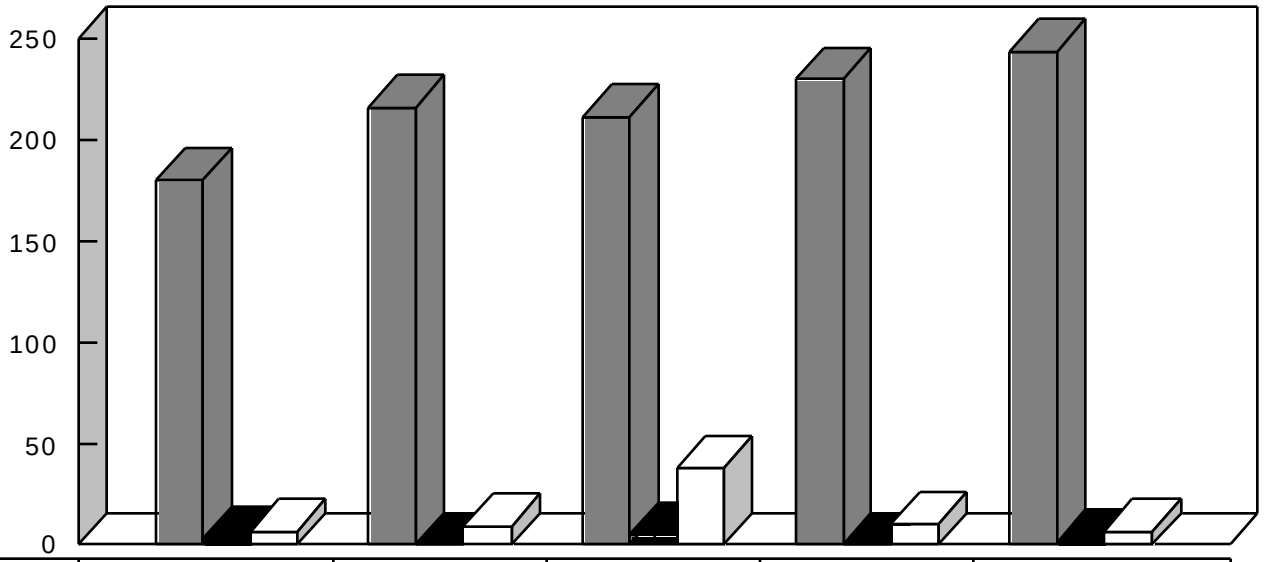
As table 13 on page 29 illustrates, there were 1,853 injuries from outside force damage in 1994. This was as a result of eight pipeline ruptures during floods in the San Jacinto River in Texas where more than 35,000 barrels of petroleum and petroleum products were released into the river. Ignition of the released products resulted in 1,851 injuries from burns (mostly minor) and inhalation. Crude oil, the commodity spilled most often, accounted for 38 percent of all reported hazardous liquid accidents but caused 44 percent of all property damage associated with those accidents (see Table 14 on page 29).

Economic Impact of Accidents. RSPA converts accident data to a common denominator for purposes of preparing cost-benefit justifications in rulemakings and for assessing risk. The economic impact of injuries, fatalities, and barrels of product spilled is calculated using a dollar equivalent--$450,000 is used for each injury, $2,500,000 for each fatality, and $25 for each barrel of product spilled. These dollar equivalents for injuries and fatalities are based on a Department analysis of economic studies of the "willingness-to-pay" concept. Property damage is shown at the dollar level reported by the pipeline operator. Based on these dollar equivalents, the 221 natural gas and 244 hazardous liquid pipeline accidents reported to RSPA in 1994 accounted for a combined economic impact of over $266 million in injuries, fatalities, product spilled, and property damage (see Table 16 on page 31).

Accidents of Interest. Of the pipeline accidents for which written reports were submitted to the Department in 1994, some are of particular interest given environmental implications, extent of property damage, or cause of accident.

On March 23, 1994, a 36-inch natural gas pipeline failed in Edison, New Jersey. Cause of failure was mechanical damage causing a crack in a gouge to the exterior of the pipe, which over time grew to a critical size. The fire destroyed eight apartment buildings and an asphalt plant. Over 1,500 apartment residents were evacuated, most of which required relocation, and an estimated $25 million of property

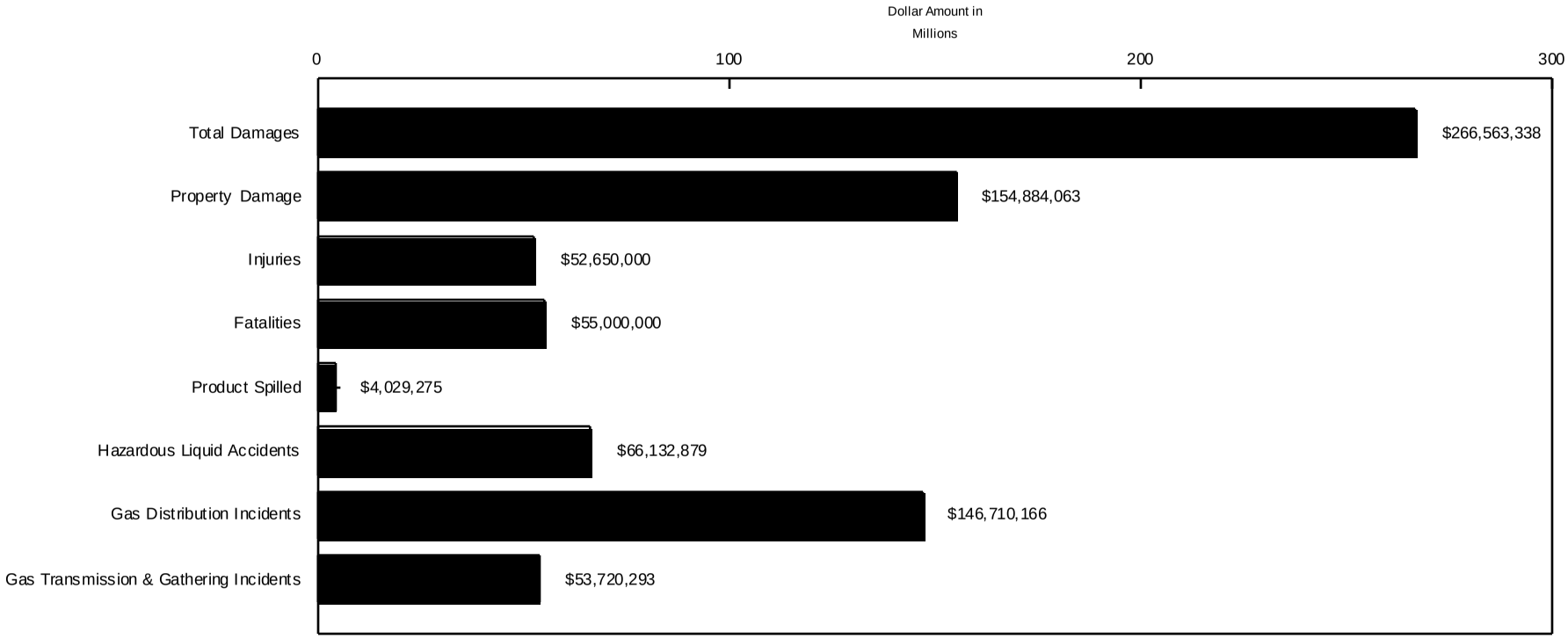
Table 15
Summary of Hazardous Liquid Pipeline Failures, Fatalities, and Injuries (1990-1994)



Year	1990	1991	1992	1993	1994
Failures	180	216	212	230	244
Fatalities	3	0	5	0	1
Injuries	7	9	38	10	7

Table 16

1994 Economic Impact of Pipeline Accidents *



*Conversion factor for calculating Economic Impact: $450,000 per injury; $2,500,000 per death; $25 per barrel of product spilled (hazardous liquid only).

damage resulted from the ignition of the high pressure natural gas escaping from the pipeline. Contributing to the severity of the accident was the failure to promptly stop the flow of gas to the rupture.

On June 9, 1994, one person was killed and 80 persons injured when a 2-inch natural gas distribution pipeline failed and ignited in Allentown, Pennsylvania. The incident occurred when a 2-inch service line pulled out of a mechanical coupling next to the wall of an eight story retirement home. Property damage was reported to be over $5 million. Post accident inspection revealed that pipe had evidence of recent damage by mechanical equipment.

In mid-October 1994, seven hazardous liquid and one natural gas pipelines ruptured in the San Jacinto River near Houston, Texas due to flooding. In addition, several other pipelines were exposed due to the flooding but did not fail. More than 35,000 barrels of petroleum and petroleum products were released into the river, with the majority of the liquid spill coming from a 36-inch fuel oil and 42-inch gasoline pipeline. Ignition of the released products resulted in 1,851 people receiving mostly minor burns and vapor inhalation injuries. Spill response costs exceeded $7 million, and estimated property damage losses were about $16 million.

On October 17, 1994, a natural gas explosion occurred in a tavern in Waterloo, Iowa. Six people were killed and two injured as a result of the explosion. Investigation revealed that natural gas migrated from a leak in a service line to an adjacent building. A crack was discovered in the ½-inch plastic polyethylene pipe at the end of the metal insert stiffener in the compression fitting on the tapping tee joining the line to the main.

NTSB Safety Recommendations. NTSB did not make any recommendations in 1994.

TRANS-ALASKA PIPELINE SYSTEM

The Alyeska Pipeline Service Company operates the Trans-Alaska Pipeline System (TAPS) which has seen declining flow rate recently, but historically has transported about 25 percent of the nation's domestically produced crude oil since 1977. The pipeline is routed from the North Slope production fields to the all weather port of Valdez, Alaska where the crude oil is loaded on ships and transported to the refineries in the Continental U.S.. The TAPS pipeline is 48-inches in diameter and 800 miles long, divided approximately equally between above ground and below ground sections interspersed throughout the 800 miles.

The Joint Pipeline Office (JPO), formed in 1990 and including the Department of Interior's Bureau of Land Management, the State of Alaska and the Office of Pipeline Safety, continue to have primary responsibility for TAPS oversight. Initially the JPO concentrated on the corrosion problems first encountered in 1988 by running an instrumented internal inspection device, which resulted in the 8.5 mile pipe replacement in the Atigun Pass Floodplain. The Working group formed to address the external corrosion problems, with OPS in the lead role, are developing additional protection and monitoring alternatives for these structures.

The Department of Interior independent audit of TAPS which determined some additional concerns regarding integrity and reliability has produced a final report. The JPO has been tasked to monitor the resolution of issues identified in the report and has developed a tracking methodology. An OPS inspector has been assigned to this task.

Alyeska continued to develop organization modifications to improve overall performance. The OPS had two full time inspectors for most of the year, but dropped to one full time inspector by the end of the year. The OPS is considering assigning two full time inspectors permanently.

RESEARCH AND TECHNICAL ACTIVITIES

The Department's pipeline safety research and technical activities provide support for development, modification, interpretation, and enforcement of the pipeline safety regulations. The following research was conducted in 1994:

Improving the Safety of Marine Pipelines:
As a result of a vessel striking a natural gas liquids pipeline in shallow water in the Gulf of Mexico in 1987, two crewmen were killed. In 1989, a similar accident where a vessel struck a natural gas pipeline in shallow waters in the Gulf Of Mexico resulted in the death of 14 crew members. RSPA, along with the Mineral Management Service of the Department of the Interior, requested that the Marine Board of the National Research Council conduct an interdisciplinary review and assessment of the many issues - technical, regulatory, and jurisdictional - that affect the safety of marine pipelines in U.S. offshore waters, including state waters.

The study "Improving the Safety of Marine Pipelines" was concluded in late 1994. The study made several recommendations to improve the safety of offshore pipelines including: clarifying the jurisdictional division between RSPA and MMS; developing a common safety database; and determining that safety regulations be based on sound risk and cost-benefit analyses.

Study of Supervisory Control & Data Acquisition (SCADA) Methods: The Pipeline Safety Law requires the Department to survey and assess the effectiveness of emergency flow restricting devices (including remotely controlled valve and check valves) and other procedures, systems, and equipment used to detect and locate pipeline ruptures and minimize product releases from pipeline facilities. This study, being conducted by the Volpe National Transportation Systems Center, will investigate and analyze the various computer-based SCADA pipeline leak detection systems. It will determine if any of them, or simplified versions, are suitable for general application in the gas and hazardous liquid pipeline industry. The study will also pinpoint areas where further research is needed to minimize leak detection time.

National Pipeline Mapping System: A joint government/industry pipeline mapping team was formed to determine how OPS can best obtain a reasonably accurate depiction of the pipelines and LNG facilities operating in the U.S. The team's mission is to analyze various mapping alternatives and determine a cost effective strategy for creating a reasonable and accurate depiction of the location of natural gas transmission and major hazardous liquid pipelines and LNG facilities in the U.S. A report will be issued at the completion of this study.

Assess the Need for an Improved Inspection Program for Master Meter Systems: Congress has focused attention on the inspection of gas pipeline systems for which states have not assumed jurisdiction, including master meter systems. Master meter systems are located at many public housing complexes and trailer parks. The concern about the safety of these systems is that most of them are operated by people who are not well qualified to operate the pipeline systems, and only have a vague understanding of the Federal gas pipeline safety standards. This study is assessing the need for an improved inspection program for master meter systems. Data was gathered from a survey of state regulatory commissions that have regulatory authority over master meter systems.

Cast Iron Study: The purpose of this study is to determine the extent to which operators of cast iron pipelines have adopted a plan for the safe management and replacement of cast iron and the elements of that plan including anticipated rate of replacement and the progress that has been made. Data was gathered from a survey of the state regulatory commissions that have authority over intrastate pipeline operators having cast iron pipelines. This study is required by the Pipeline Safety Law.

Safety Review and Survey of Customer-Owned Service Lines: The purpose of this study is to review and measure the effectiveness of state and Federal rules, policies, and procedures with respect to the safety of customer-owned natural gas service lines. This review includes an evaluation of maintenance of customer-owned service lines raises safety concerns and the potential need for statutory or regulatory action. This study will consider: (1) state and local laws; (2) laws concerning property rights; (3) the views of state and local regulatory authorities; (4) available accident information; (5) recommendations by NTSB; (6) costs; (7) civil liability implications of distribution operators taking responsibilities for customer-owned service lines; and (8) whether safety information required by the Federal government sufficiently addresses risks and concerns involving customer-owned service lines. Data was gathered from a survey of the state regulatory commissions that have regulatory authority over distribution pipeline operators. This study is required by the Pipeline Safety Law.

TRAINING INFORMATION AND DISSEMINATION

The Pipeline Safety Division of TSI is the primary provider of training for OPS. TSI is under the administrative direction of RSPA and receives technical and financial support to conduct the pipeline safety training program from OPS. TSI provides resident training at its facilities in Oklahoma City, Oklahoma, and nonresident training across the country. Both resident and nonresident training are essential to ensure that all personnel involved in pipeline transportation have fundamental knowledge of the set of federal pipeline safety regulations, as well as relevant standard industry practices.

Educating Federal and state government inspectors in regulatory and compliance requirements and enforcement procedures continues to be the primary focus of TSI's resident training. Courses are generally one week in duration and are conducted in a conventional classroom and hands-on laboratory setting with an average of 22 students to a class. TSI training of state inspectors is an integral part of the Federal/State Partnership. In 1994, 550 people attended 26 pipeline safety classes offered by TSI (see Table 17 on page 37).

Course offerings are continually being revised to keep current with regulatory changes, and to meet the needs of the pipeline industry. Since TSI reinstated industry training, requests for classes have continued to increase. Four classes were conducted in Regulation Compliance Requirements for Gas Pipeline Operators and Safety Evaluation of Pipeline Corrosion Control Systems Fundamentals. In 1994, TSI initiated and offered two classes in General Pipeline Safety Awareness to both government and industry participants. This training addressed Occupational Safety and Health Administration (OSHA) and hazardous materials regulations, and pipeline safety fire fighting techniques.

TSI also conducts pipeline safety seminars across the country at sites selected by state agencies. Seminars have proven to be advantageous to states since small operators, as well as large operators, can have more employees attend seminars held in nearby local areas. This results in cost savings and less worker time lost. Seminars, consisting primarily of one to three day sessions, are attended by an average of 114 participants, usually pipeline operator personnel. TSI has developed seminars to meet specific state requests. During 1994, TSI offered a total of 33 seminars which attracted 3,751 attendees from 23 states (see Table 17 on page 37).

TSI tailors seminars to meet area needs. Several seminars have become annual events due to unique safety issues: Alabama has cast iron and small operator concerns; Kansas has concerns about construction and maintenance practices (customer-owned service lines, plastic pipe shortcomings, etc.); and the New England area has concerns with aging of gas systems, along with cast iron concerns. TSI, with guidance from OPS, is looking at several other areas for annual seminars to keep operators abreast of pipeline safety changes and concerns.

The hazardous liquid program expanded in 1994 to include hands-on, hydraulic testing demonstration equipment in the classroom. Six hazardous liquid courses and seminars were conducted in 1994.

Table 17

1994 Pipeline Safety Training Conducted by TSI

Course	# Classes	# State & Other Students	# Federal Students	Total Students
Safety Evaluation of Gas Pipeline Systems	2	41	6	47
Safety Evaluation of Pipeline Corrosion Control Systems I	2	37	1	38
Safety Evaluation of Pipeline Corrosion Control Systems II	2	41	3	44
Liquefied Natural Gas Safety Technology & Inspection	1	18	2	20
Joining of Pipeline Materials	2	43	0	43
Gas Pressure Regulations & Overpressure Protection	2	30	0	30
Pipeline Failure Investigation Techniques	2	32	2	34
Pipeline Safety Regulation Application & Compliance Procedures	2	34	7	41
Safety Evaluation of Hazardous Liquid Pipeline Systems	3	39	20	59
Regulation Compliance Requirements for Gas Pipeline Operators (Ind.)	4	117	0	117
Safety Evaluation of Pipeline Corrosion Control Systems (Industry)	2	38	0	38
General Pipeline Safety Awareness	2	31	8	39

State Seminars

State	Seminars	Students
Alabama	2	354
Arkansas	1	54
California	2	209
Colorado	1	95
Florida	1	139
Georgia	1	198
Hawaii	1	37
Illinois	1	186
Kansas	1	339
Louisiana	1	149
Maine	1	129
Michigan	1	153
Minnesota	2	246
Missouri	1	197
Montana	1	46
New Jersey	1	24
New York	2	175
North Carolina	2	132
North Dakota	1	37
Oklahoma	3	424
Oregon	1	60
Utah	2	154
Wyoming	3	214

Summary:				
	Number of Classes	26	Class Students	550
	Number of Seminars	33	Seminar Students	3,751
			Total Trained	4,301

The division continued with an initiative to determine alternative approaches to classroom training, (e.g., an interactive video on the use of a combustible gas indicator in responding to leak and odor complaints, and computer-based training in the fundamentals of corrosion). This initiative will apply a multi-media concept through a networking computer system for artificial intelligence training.

Information dissemination is another integral part of the Department's pipeline safety program. TSI provides a manual for government pipeline safety inspectors, including current pipeline safety regulations. Inspectors receive the manual, referred to as the SMART Pipeline Inspection Guide (PIG), at the time they attend the first TSI pipeline safety class or fill out an application. The manual is updated periodically and each recipient is required to file addenda to the manual with confirmation from TSI. This effort ensures that each pipeline safety inspector has current regulations for conducting inspections.

To promote compliance with the pipeline safety regulations, the Department also sponsors a number of information dissemination activities designed to familiarize industry personnel, particularly operators of small gas systems, with the requirements of the regulations. TSI distributed over 7,200 of the Department's Small Operators' Manuals, regulation manuals and diskettes, antidrug-related material, and videos on developing emergency plans in response to requests from states, operators, and other training participants.

DRUG/ALCOHOL TESTING, INSPECTION, AND ENFORCEMENT

On November 21, 1988, RSPA issued a final rule establishing 49 CFR Part 199 entitled Control of Drug Use in Natural Gas, Liquefied Natural Gas, and Hazardous Liquid Pipeline Operations, which set forth regulations to require operators of pipeline facilities, other than master meter systems, used for the transportation natural gas or hazardous liquids and operators of LNG facilities to have an antidrug program for employees who perform specific functions covered by the pipeline safety regulations.

Pipeline operators with more than 50 employees subject to drug testing under Part 199 had to comply with the requirements by April 20, 1990. Operators with 50 or fewer employees subject to drug testing under Part 199 had to comply with the requirements by August 21, 1990.

A total of 49 state agencies in partnership with RPSA inspect for compliance of Parts 199 and 40. Part 40 sets forth Departmental procedures for workplace drug-testing programs in all modes of transportation.

By the end of 1994, RSPA had participated in numerous drug audits and had provided technical assistance to approximately 5 states. This effort was designed to provide in-depth, hands-on training to assist Federal and state inspectors in conducting comprehensive audits of operator antidrug programs. This effort also provided valuable assistance and guidance to numerous operators to ensure they were in compliance with the regulations. This effort was extended beyond the initial scope of inspectors and operators to assist the hundreds of contractors who must comply with RSPA's drug testing regulations.

During 1994, RSPA continued to strive toward ensuring operator compliance, by initiating 42 enforcement actions against pipeline operators for deficiencies in their testing programs. The primary enforcement actions take were compliance orders and notices of amendment. RSPA continued to provide technical publications and guidance to Federal/state inspectors, operators, and contractors. RSPA also revised the question and answer segment guidance package, to include discussion of complex issues surrounding antidrug plan formats and the monitoring of contractor compliance. Numerous opinion letters were issued to clarify technical issues. The model anti-drug plan and the revised inspection format were distributed.

This was the first year that RSPA required the submission of the Management Information System (MIS) Data Collection forms for drug testing of pipeline personnel. From the data provided, RSPA determined that the positive random drug testing rate for the pipeline industry for the period of January 1, through December 31, 1994, was 0.8 percent. Once RSPA has received two consecutive years of drug testing data, RSPA will be able to determine if the random testing rate can be lowered or if it will remain at 50 percent.

On February 15, 1994, RSPA issued a final rule (59 FR 7426) establishing Subpart B of Part 199 entitled Alcohol Misuse Prevention Program, which set forth regulations requiring those pipeline operators that are subject to maintain and follow a drug testing program to also implement a alcohol testing program.

Operators with 51 or more covered employees must implement their programs by January 1, 1995. Operators with 50 or fewer covered employees must implement their programs by January 1, 1996.

Those state agencies that inspect for compliance of the drug testing regulations, must also inspect for compliance with the alcohol testing regulations.

The alcohol testing regulations require a limited testing program for covered employees. RSPA only requires post-accident, reasonable suspicion, return-to-duty and follow-up testing. RSPA does not require pre-employment or random alcohol testing.

THE OIL POLLUTION ACT OF 1990

In response to several catastrophic oil spills which damaged the marine environment of the United States, Congress passed OPA 90 to establish a new national planning and response system. In Executive Order 12777, the President delegated the responsibility for implementation of OPA 90 as it applied to vessels and transportation related facilities to the Secretary of Transportation. RSPA issued an interim final rule for response plans for onshore oil pipelines in 1993, which required oil pipeline operators to submit facility response plans for RSPA's review and approval.

In 1994, RSPA developed the plan review criteria and procedures it used to assess the adequacy of pipeline facility response plans. RSPA conducted preliminary reviews of all 1,200 response plans it received, and proceeded to conduct in-depth reviews of response plans that were identified as posing a significant and substantial threat to the environment.

During 1994, RSPA also participated in the development of the Preparedness for Response Exercise Program (PREP). The PREP is a multi-agency oil spill exercise program developed in concert with EPA, Coast Guard, Minerals Management Service, and the oil industry. The PREP was developed to ensure that all four agencies with authorities under OPA 90 would have a coordinated exercise program, rather than having each of the agencies develop a separate exercise program. The PREP was very well received by the industry, and has been cited as an example of how regulatory agencies and industry can cooperate to develop programs that meets the requirements of the OPA statute, while minimizing the burden on industry.