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Annual Report on Pipeline Safety

Materials Transportation Bureau

Calendar Year 1982

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ANNUAL REPORT ON PIPELINE SAFETY

PIPELINE SAFETY ACT
(Public Law 96-129)

Title I NATURAL GAS PIPELINE SAFETY ACT
Title II HAZARDOUS LIQUID PIPELINE SAFETY ACT

Calendar Year 1982

TABLE OF CONTENTS

	<u>Page</u>
Preface	i
Pipeline Safety Regulations	1
Federal/State Cooperative Program	6
Enforcement Activity	10
Pipeline Failures and Investigations	19
Pipeline Safety Research and Development	29
Training and Safety Information	30
Alaska Natural Gas Transportation System	32
Outstanding Problems	34
Appendix A - Amendments to 49 CFR Parts 191, 192, 193, and 195 issued in 1982	A-1
Appendix B - Natural Gas Pipeline Safety Enforcement Actions in 1982	B-1
Appendix C - Liquid Pipeline Safety Enforcement Actions in 1982	C-1

PREFACE

This report on the administration of the Department of Transportation's (DOT) Pipeline Safety Program is prepared as prescribed by Sections 16 of the Natural Gas Pipeline Safety Act of 1968 and 213 of the Pipeline Safety Act of 1979, PL 96-129. The Pipeline Safety Act of 1979, besides amending the Natural Gas Pipeline Safety Act of 1968, Title I, included a Title II which created the Hazardous Liquid Pipeline Safety Act of 1979. This report therefore describes the Department's activities during calendar year 1982 to promote and influence the safe transportation of both natural gas and hazardous liquids through the Nation's network of pipelines.

Natural Gas Pipeline Safety

The Natural Gas Pipeline Safety Act (NGPSA) of 1968, as amended (49 USC 1671 *et seq.*), provides for Federal safety regulations of those facilities used in the transportation by pipeline of natural and other gases in, or affecting, interstate or foreign commerce. It created exclusive federal authority over interstate gas pipeline systems, and granted the Department overall responsibility for regulation of intrastate gas systems, with provisions allowing for state assumption of regulatory jurisdiction over intrastate systems. DOT's responsibility for safety regulation of natural gas pipelines involves more than 2,300 operators of a gas pipeline network of more than 1.5 million miles. This total includes almost 37,000 miles of gathering lines, 307,000 miles of transmission lines, 812,000 miles of distribution mains, and 406,000 miles of service lines. DOT is also responsible for regulating approximately 81,000 master meter operators.

As an incentive for states to assume regulatory jurisdiction over intrastate pipeline systems, the NGPSA authorized establishment of a grant-in-aid program that allows states to apply to the Department for up to 50 percent of their cost to operate a gas pipeline safety program. Under a system of "Certifications" or "Agreements" states elect to either adopt and enforce the Federal Regulations, or undertake on behalf of the Department, certain operator surveillance activities, referring probable violations to the Department for federal enforcement action. The success of this federal/state partnership, measured in terms of the total resources devoted to pipeline safety clearly demonstrates the cost benefit advantages of subsidizing the development of state regulatory and inspection expertise. Furthermore, state adoption and enforcement of the federal pipeline safety regulations, influenced by the financial incentives provided by the grant program, is another step toward the Department's ultimate goal of a uniform national set of safety standards.

Liquid Pipeline Safety

The Hazardous Liquid Pipeline Safety Act (HLPSA) of 1979 (49 USC 2001, et seq., Title II of PL 96-129; 93 Stat. 1003) granted the Department substantial new regulatory and enforcement authority over interstate and intrastate transportation of hazardous liquids by pipeline and pipeline facilities, which mirrors that granted by the NGPSA. Specific provisions allow for establishment of minimum pipeline safety standards governing the transportation of hazardous liquids by pipeline; a federal/state partnership in regulating intrastate hazardous liquid pipelines with federal financial assistance to state agencies participating in the program; and establishment of enforcement remedies for violations of the Federal standards.

Since enactment of this legislation, the Department has exercised its authority to regulate the interstate movement of hazardous liquids but reserved for future rulemaking its application to intrastate operators. Based upon experience with the natural gas pipeline program, the Department delayed implementation of the intrastate program to allow states time to adopt authorizing statutes to qualify them for certification to carry out the requirements of Section 205 of the HLPSA. Section 205 invites states, under a system of "Certifications" similar to that in effect for natural gas pipelines, to assume enforcement of the Federal safety standards as they apply to intrastate pipeline facilities. With most interested states having acquired enabling legislation, the Department plans to implement this cooperative program in the near future.

Departmental Responsibilities

The Department's pipeline safety program is administered by the Materials Transportation Bureau (MTB) of the Research and Special Programs Administration (RSPA). Pipeline safety functions assigned to MTB include developing, issuing, and enforcing regulations for the safe transportation of natural gas, liquefied natural gas, and hazardous liquids by pipeline. MTB's regulatory programs are designed to assure safety in the design, construction, testing, operation, and maintenance of these pipeline facilities, and in the siting of new liquefied natural gas facilities. In support of these regulatory responsibilities, MTB manages federal grants to aid states in conducting intrastate gas pipeline safety programs; monitors performance of those state agencies participating in the program; collects, compiles, and analyzes pipeline safety and operating data; and conducts training programs for government and industry personnel in the application of the pipeline safety regulations.

MTB also conducts a pipeline safety technology program with primary emphasis on applied research. This program delivers solid analytical methodologies and state-of-the-art technology that support regulatory

decision making, ensure the integrity of inspection and enforcement activities, and provide the technical and analytical foundation necessary for planning, evaluation and implementation of the natural gas and hazardous liquid safety program.

Also assigned to MTB is the function of the Department's Agency Authorized Officer (AAO) for the Alaska Natural Gas Transportation System project. Under the organizational structure established by Executive Order 12142, the AAO represents the Department within the Office of the Federal Inspector, and is responsible for monitoring and expediting all the project related activities that fall within the purview of the Department.

PIPELINE SAFETY REGULATIONS

Natural Gas

The Federal safety regulations applicable to interstate and intrastate transportation of natural and other gas by pipeline are published in 49 CFR Parts 191, 192 and 193. To ensure the continued appropriateness and relevance of these regulations and to avoid imposition of an unnecessary regulatory burden on the industry, the Materials Transportation Bureau conducts an ongoing program of regulatory review designed to identify and revise or revoke those regulations that no longer accomplish the intended purpose or that are unnecessary for safety. Four of the ten changes to the existing regulations issued by MTB in 1982, fall within this category and are enumerated below:

- o Amendment No. 192-39, Metal Alloy Fittings in Plastic Pipelines-removed the requirement that a means be provided for identifying the location of each metal alloy fitting that is installed without coating and cathodic protection in plastic pipelines. The identification requirement was found to be unnecessary for safety; and furthermore, it hindered the use of corrosion resistant metal alloy fittings for mechanically joining plastic pipe and its components.
- o Amendment Nos. 192-43, Inspection and Test Intervals-re-stated the time intervals for the performance of periodic inspections and tests in terms of minimum calendar year requirements instead of fixed recurring time intervals. The new requirement allows operators more flexibility in the scheduling of required monitoring activities to compensate for unexpected workload conflicts. With minor modifications these amendments extend the possible intervals for periodic actions without reducing the number of such inspections, tests, or other safety activities.
- o Amendment No. 192-41, Incorporation by Reference-updated the 1978 specification for thermoplastic gas pressure pipe to include the 1981 edition of the American Society for Testing and Materials (ASTM) specifications, which reflect the latest developments in materials and plastic pipe technology. It is in the best interest of operators and the public to allow the use of this latest technology.
- o An Advance Notice of Proposed Rulemaking (ANPRM)-Placing Longitudinal Weld Seams in Upper Half of Pipe sought to explore the need for regulations requiring the placement

of longitudinal weld seams in the upper half of newly constructed pipelines as an accident prevention measure, was withdrawn in the absence of any evidence that location of the weld seam is a contributing factor to corrosion caused failures.

One rulemaking action of particular importance was the issuance of a regulation that would become effective on April 1, 1983, requiring operators of natural gas pipeline facilities to establish or participate in damage prevention programs to reduce the risk of excavation damage to buried pipelines in populated areas. In 1982, 61% of all pipeline accidents were attributable to excavation (see figure 1). Outside force damage as this category of incident is called, remains the primary cause of pipeline accidents and this new regulation is seen as the catalyst that could bring about a reversal in the frequency of such incidents. Modeled after successful "one call" systems, the regulation describes the criteria that these programs must meet to be in compliance with the requirements. These include: public notification of the existence of the program, the capability to receive calls concerning pending excavation and the availability of information concerning location and identification of buried pipelines.

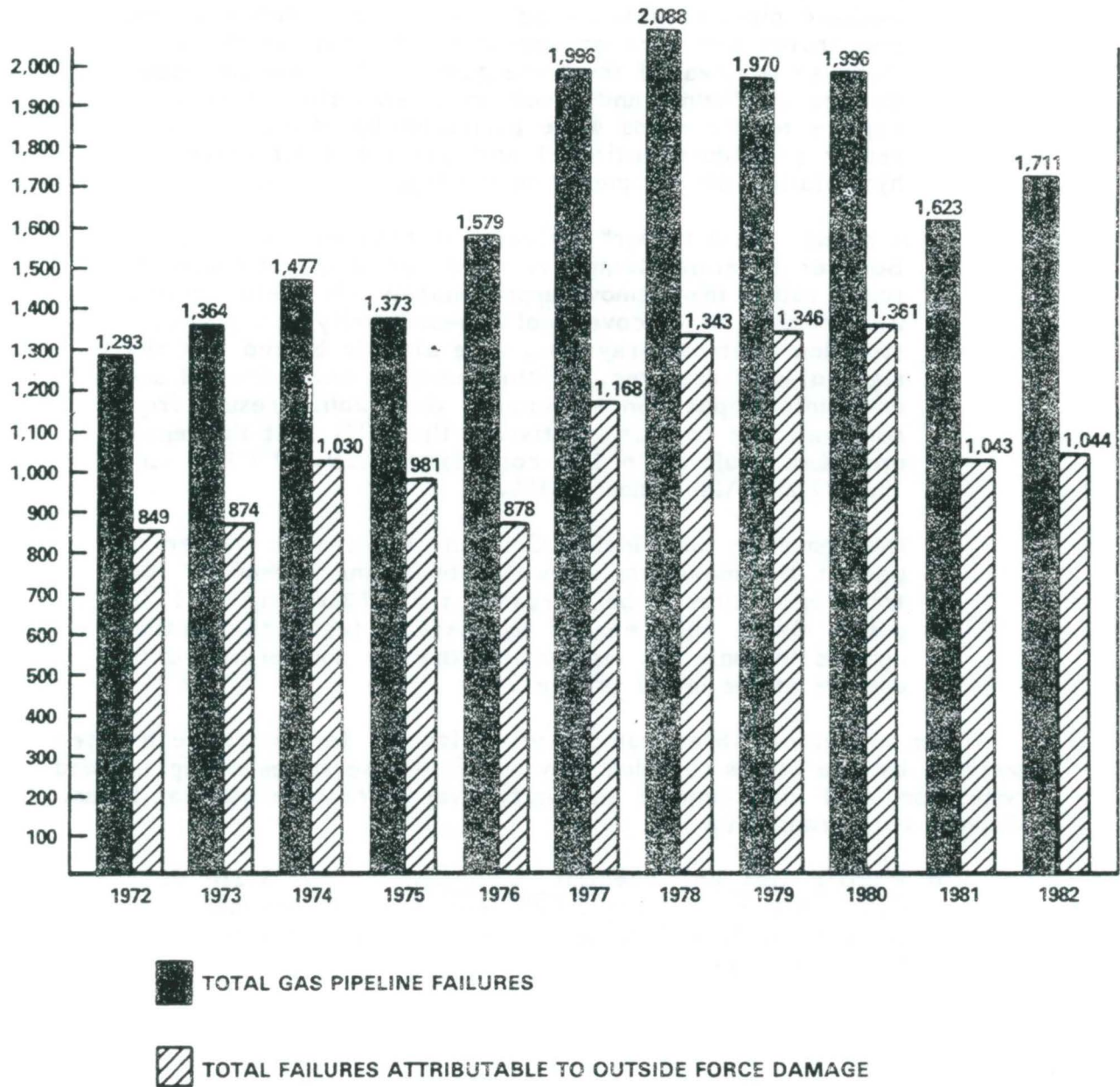
Hazardous Liquids

Federal safety standards governing hazardous liquid pipelines are contained in 49 CFR Part 195. Four amendments to the regulations and two Notices of Proposed Rulemaking were issued in 1982. A brief summary of the more significant of these regulatory actions follows:

- o Amendment 195-24, Inspection and Test Intervals- restates the time intervals for the performance of periodic inspections and tests applicable to hazardous liquid pipeline operators and allows operators more flexibility in scheduling mandated tests and inspections.
- o Amendment 195-25, Weld Filler Metal- deleted the requirement of Section 195.220 that weld filler metal be as strong as the strongest piece of metal being welded, on the basis that the requirement was ambiguous and redundant.
- o A Notice of Proposed Rulemaking- PS-72 proposed to delete the requirement to retain radiographic film for three years after a pipeline is placed in service and to map the location of the radiographed welds. The requirement was found to have minimal safety value but imposed a substantial financial burden on operators.

FIGURE 1

***GAS PIPELINE FAILURES CAUSED BY
OUTSIDE FORCE DAMAGE 1972-1982***



All amendments issued in 1982 can be found in their entirety in Appendix A.

Waivers Granted Under the Act

Three pipeline companies petitioned MTB for waivers from compliance with certain specific requirements of the pipeline regulations.

- o The Transcontinental Gas Pipeline Corporation (TRANSCO) received a waiver from the requirement that a weld in an onshore pipeline with a crack in excess of 2 inches or that penetrates the root or second bead must be removed. Because removal of the three girth welds in question would damage the fittings and result in interruption of service, repairs to the welds were permitted based upon the weld repair procedures utilized and the non-destructive and hydrostatic tests completed on the repaired welds.
- o A similar "weld repair" waiver was granted the Northern Border Pipeline Company. The company petitioned to repair rather than remove approximately 570 welds which, at the time of discovery of non-conformity in a post-construction audit of X-ray film, were already buried and the right-of-way restored. Citing adverse environmental and economic impact on consumers that would result from removal, the company satisfied the MTB that the repair procedure would be in full compliance with 49 CFR Part 192.225 and API Standard 1104.
- o The Tennessee Gas Pipeline Company received a waiver to permit the maximum allowable operating pressure of two transmission lines to be increased from 1088 psig to 1170 psig. Based upon earlier hydrostatic tests, this action uprated the only two segments of the line not permitted to operate at the higher pressure.

An additional three companies petitioned for and were granted waivers by the states in which they operate--those states having assumed regulatory and enforcement authority over intrastate gas facilities. Waivers were granted to:

- o Pacific Gas and Electric Company by the State of California, permitting 3,028 feet of 8 inch gas main in the City of Antioch to be uprated using a test pressure factor of 1.486.

- o Peoples Natural Gas Company by the States of Kansas and Colorado, authorizing the use of plastic pipe material designated as PE 3408 and manufactured in accordance with the 1981 edition of the American Society for Testing and Materials (ASTM) criteria.
- o Arkansas Louisiana Gas Company by the State of Arkansas, permitting the company to conduct leakage surveys on distribution lines in business districts at intervals not exceeding 15 months.

Technical Pipeline Safety Standards Committees

As required by the Natural Gas Pipeline Safety Act of 1968, and the Hazardous Liquid Pipeline Safety Act of 1979, all proposed amendments to the pipeline safety standards issued in 1982 were reviewed by the Technical Pipeline Safety Standards Committee and the Technical Hazardous Liquid Pipeline Safety Standards Committee. These Committees function as advisory bodies to the Materials Transportation Bureau with responsibility for evaluating proposed pipeline safety standards and reporting on their technical feasibility, reasonableness, and practicability. Each Committee is comprised of 15 members including two state commissioners, four representatives from the pipeline industry, and six representatives from the general public. All are appointed for three year terms. Qualifications for membership include experience or training in the regulation of pipeline transportation or training in related fields of engineering.

Natural Gas Regulatory projects reviewed and discussed at the Technical Pipeline Safety Standards Committee annual meeting in November 1982 included:

- Repair and removal of weld defects;
- Line marking at navigable waterways;
- Monitoring external corrosion control;
- Performance standards for steel pipe;
- Requirements for reporting gas incidents.

The Technical Hazardous Liquid Pipeline Safety Standards Committee met once in 1982 to consider regulatory proposals pertaining to:

- o Line marking at navigable waterways;
- o Temperature limits on cold expanded steel pipe;
- o Qualification of metallic components;
- o Repair and removal of weld defects;
- o Isolated corrosion pitting;
- o Records for hydrostatic testing, operation, and maintenance;
- o Nondestructive testing of girth welds.

FEDERAL/STATE COOPERATIVE PROGRAM

Natural Gas Grant-In-Aid Program

With the exception of Alaska and South Dakota, all states, along with the District of Columbia and Puerto Rico, participated in the federal/state cooperative gas pipeline safety program in 1982. Under this program authorized by the Natural Gas Pipeline Safety Act (NGPSA), states agree to assume total or partial regulatory and enforcement authority over gas pipeline operations within their borders. These responsibilities are carried-out by designated agencies within each state operating under either of two authorities: 5(a) certifications or 5(b) agreements.

State agencies certified under section 5(a) of the NGPSA assume regulatory and enforcement authority over intrastate gas facilities. To qualify, a state agency must, among other things, have adopted the Federal gas pipeline safety standards and must enforce those standards through injunctive and monetary sanctions substantially the same as those authorized by Sections 11 and 12 of the NGPSA.

State agencies that do not meet the criteria for 5(a) certification may enter into a 5(b) agreement to undertake certain aspects of the gas pipeline safety regulatory program for intrastate facilities on behalf of the Department. Under a section 5(b) agreement, state agencies conduct operator surveillance to ascertain compliance with the Federal regulations. Probable violations are reported to the Department of Transportation for federal enforcement actions.

States may also elect to conduct surveillance of interstate transmission line facilities as Interstate Agents on behalf of the Department. State responsibility in this instance parallels responsibility assumed under section 5(b) agreements, in that detection of probable violations of Federal standards are reported to the Department for federal enforcement action.

The financial incentive offered by the grant program, which provides for federal reimbursement to state agencies of up to 50% of their expenses incurred in discharging these regulatory responsibilities, has served to encourage states' continued involvement in this program. In 1982, 47 state agencies held 5(a) certifications, three operated under 5(b) agreements, and twelve acted as Interstate Agents on behalf of the Department. A total of \$2,405,733 in grant funds was disbursed to the 50 state agencies applying for financial assistance. South Carolina did not participate in the federal grant program. (State certification and fund allocation data are displayed in Tables 1 and 2.) The benefits derived from this cooperative approach to enforcing the provisions of the NGPSA

TABLE 1

STATES PARTICIPATING IN THE FEDERAL/STATE COOPERATIVE
GAS PIPELINE SAFETY PROGRAM IN 1982 UNDER
SECTIONS 5(a) AND 5(b) OF THE
NATURAL GAS PIPELINE SAFETY ACT OF 1968 AS AMENDED

States under 5(a) Certification

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

States under 5(b) Agreements

Delaware	Massachusetts	New Jersey
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States Acting as Interstate Agents

Connecticut	Ohio
Iowa	Rhode Island
Kentucky	Utah
Michigan	Washington
Montana	West Virginia
Nevada	Wyoming

TABLE 2

1982 NATURAL GAS PIPELINE SAFETY GRANT ALLOCATIONS

<u>STATE</u>	<u>ALLOCATION</u>
Alabama	\$ 66,785
Arizona	27,283
Arkansas	49,112
California	80,769
Colorado	47,657
Connecticut	42,000
Delaware	6,638
Florida PSC	58,626
Florida ST	31,226
Georgia	55,201
Hawaii	8,750
Idaho	14,374
Illinois	64,226
Indiana	49,480
Iowa	25,628
Kansas	29,825
Kentucky	68,571
Louisiana	115,763
Maine	10,731
Maryland	33,428
Massachusetts	29,907
Michigan	71,410
Minnesota	22,427
Mississippi	56,523
Missouri	43,093
Montana	13,553
Nebraska	35,651
Nevada	26,702
New Hampshire	21,380
New Jersey	62,143
New Mexico	47,740
New York	169,145
North Carolina	55,507
North Dakota	7,980
Ohio	58,434
Oklahoma	53,370
Oregon	42,495
Pennsylvania	83,040
Rhode Island	49,631
Tennessee	65,520
Texas	164,035
Utah	21,000
Vermont	13,770
Virginia	50,740
Washington	39,926
West Virginia	57,019
Wisconsin	56,496
Wyoming	58,919
District of Columbia	28,000
Puerto Rico	14,104
TOTAL	\$2,405,733

are enormous. A decade of states' participation has proven to be extremely effective in extending the federal regulatory influence in intrastate gas pipeline operations without a comparable increase in federal resources. Frequent communication between the Department and state agencies contributes to a clearer understanding of enforcement issues and problems, thus enabling state programs to be as efficient and effective as possible. Experience has also shown that where an aggressive state compliance and enforcement program is in effect operator efforts at system safety are significantly increased.

Hazardous Liquid Pipeline Safety

The Hazardous Liquid Pipeline Safety Act of 1979 (HLPESA) vests the Secretary of Transportation with authority to regulate both interstate and intrastate pipeline transportation of hazardous liquids. In a Final Rule entitled "Transportation of Liquids by Pipeline", published in the Federal Register 46 FR 38357 July 28, 1981, MTB exercised this authority with respect to interstate hazardous liquid pipelines but reserved for future rulemaking application to intrastate operators.

The HLPESA under Section 205, further provides for states to assume regulatory responsibility for intrastate pipeline facilities under a system of annual certifications similar to that employed under the intrastate natural gas federal/state program. Based upon experience with that program, however, at least two years is required for states to adopt authorizing statutes to qualify them for certification to carry-out their regulatory responsibilities. States with preexisting programs need time to make necessary adjustments, and those which have no program would have time to consider establishing one.

In preparation for states' eventual participation in the safety program under Section 205, MTB is moving forward with proposed rulemaking that would extend applicability of the existing hazardous liquid pipeline safety regulations to include intrastate pipelines.

ENFORCEMENT ACTIVITY

Natural Gas Enforcement Program

While state agencies, under the provisions of the cooperative federal/state gas pipeline safety program, exercise regulatory and enforcement authority over intrastate pipeline activity, MTB retains exclusive regulatory and enforcement authority over interstate pipeline activity. In this way the Federal government, because of its unique position as the single forum accessible to all states, industry and the public, can best promote a single, uniform, nationwide program of pipeline transportation control. MTB's responsibilities also extend to oversight of participating states' intrastate pipeline safety enforcement programs, a function that is carried out through its five regional offices located in Washington, DC; Atlanta, Georgia; Kansas City, Missouri; Houston, Texas; and Burlingame, California. Regional jurisdictional boundaries are identified in the following map. Plans are now underway to relocate the Burlingame, California regional office to Lakewood, Colorado.

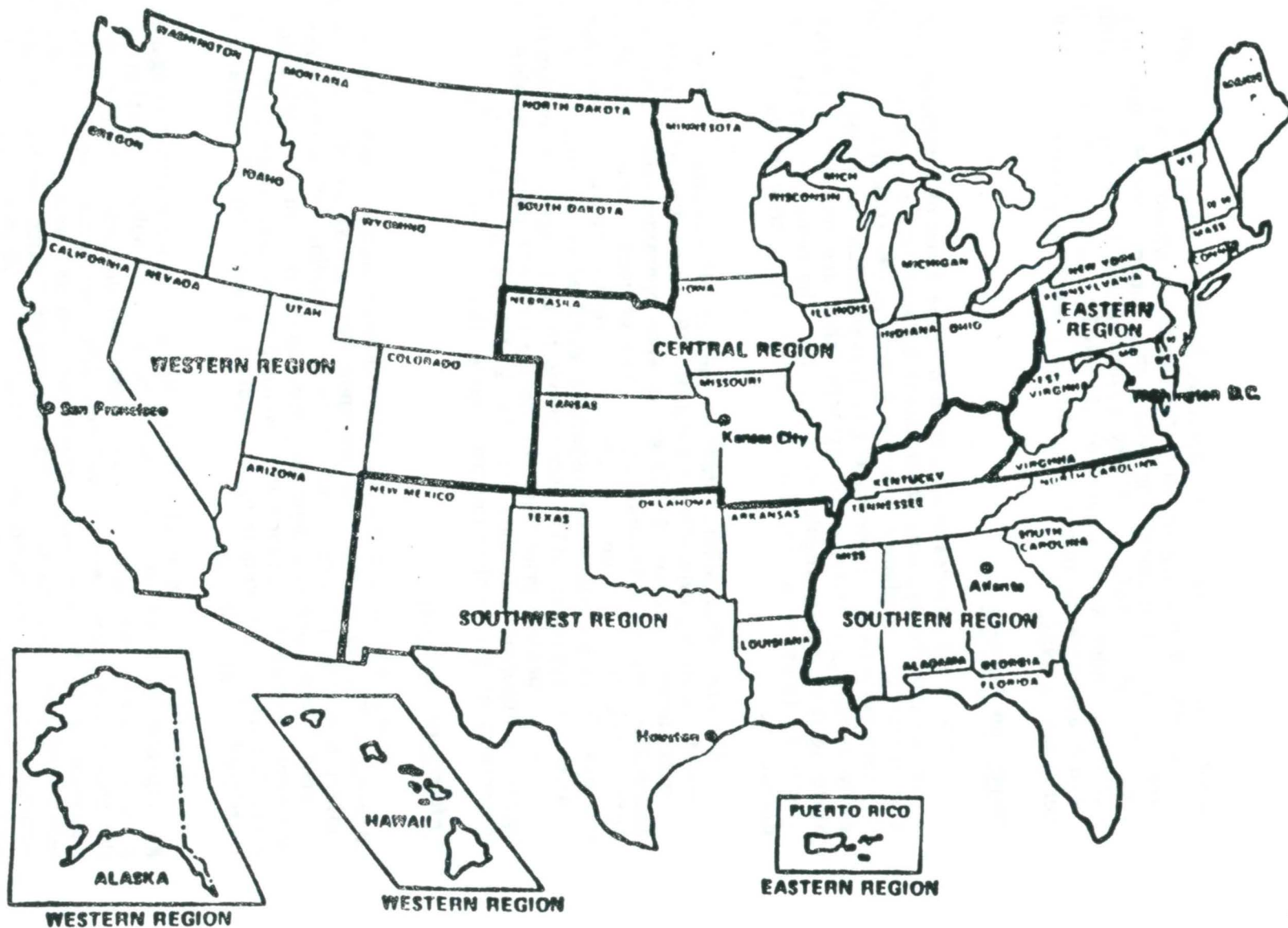
MTB's enforcement program encompasses three principal functions:

- o Oversight of the gas pipeline safety programs of state agencies participating in the federal/state cooperative programs under Section 5 of the NGPSA, and of those agencies acting for MTB with regard to inspection of interstate gas operators, to ensure adequate program performance;
- o Inspection of intrastate gas pipeline systems under direct MTB jurisdiction (such as certain municipal and master meter gas systems that by state law are not subject to regulation by a cooperating state agency) to assure that such systems comply with Federal gas pipeline safety regulations;
- o Inspection of interstate gas transmission facilities to ensure that such facilities comply with the Federal gas pipeline safety regulations;

Oversight of State Programs

Each regional office monitors the gas pipeline safety programs operated by state agencies in its region to ensure that each program is being conducted in consonance with the agency's certification or agreement. The Bureau evaluates the effectiveness and quality of program performance as well as the level of state agency expertise, initiative and drive in operating an aggressive and productive inspection and enforce-

MATERIALS TRANSPORTATION BUREAU REGIONAL BOUNDARIES



ment program. Where appropriate, MTB makes suggestions and recommendations for revising or strengthening the program to bring it back on target--that of maintaining within their jurisdictions the highest possible level of pipeline safety. Forty seven of the forty eight jurisdictions certified under section 5(a) of the NGPSA and the three jurisdictions having agreements under section 5(b) were evaluated by MTB field personnel in 1982.

Inspection Activity

Regional offices also perform inspections of interstate and intrastate gas pipeline systems under direct federal jurisdiction to determine the degree of compliance with the federal safety standards. The majority of these systems are interstate gas transmission facilities and municipally-owned gas distribution systems that are not under a cooperating state agency's safety regulatory authority. The remainder include master meter systems or petroleum gas systems and intrastate gas transmission operations.

During 1982, MTB's staff inspected 136 intrastate systems and 58 interstate systems, expending a total of 319 person-days at this task. With an estimated universe of 450 gas pipeline operators under direct federal jurisdiction and an additional 29,000 master meter operators, MTB has determined that the best strategy for allocating its limited inspection resources is to prioritize the inspection workload by potential risk. This is also the approach MTB recommends to state agencies for determining their own inspection priorities. In the most recent data available, these agencies reported that they expended 21,500 person days performing 4,147 inspections of gas pipeline operators under their direct jurisdiction.

Enforcement Activity

There are a variety of enforcement actions available to the Materials Transportation Bureau upon determination that a probable violation of the provisions of the federal pipeline safety regulations has occurred. These actions, depending upon the gravity of the violation, fall anywhere between issuance of a warning letter and issuance of a hazardous facility order requiring immediate suspension of operations or restricted use of a facility.

During 1982, federal enforcement actions were initiated against 62 gas pipeline operators who were found to be in probable violation of the pipeline safety regulations. Final disposition of these actions resulted in the preliminary assessment of civil penalties amounting to \$16,000, the issuance of 17 formal compliance orders and 38 warning letters, and the referral of three actions to the Department of Justice for further action. Additionally, two operators paid a total of \$3,000 in compromise of civil penalties assessed for violations. Sixty nine cases remained active at the

end of 1982, including two awaiting action by the Department of Justice. A national enforcement profile appears in Table 3. Detailed state statistics appear in Tables 4 through 6.

Hazardous Liquid Enforcement Program

MTB continues to exercise its jurisdiction over interstate hazardous liquid pipeline operators under the authority granted the Department under the terms of the HLPsA. To ensure that the operators comply with the requirements of the hazardous liquid pipeline safety regulations MTB:

- o Inspects and monitors hazardous liquid pipeline facilities and operations.
- o Investigates pipeline failure incidents to determine whether violations of Federal standards occurred or if revisions or additions to the regulations are needed.

Inspection and Enforcement Activities

During the year, MTB inspected 86 interstate hazardous liquid pipeline systems expending 185 person-days. Enforcement actions were initiated against 12 pipeline operators for probable violations of the safety regulations. Four actions involved the preliminary assessment of civil penalties (totalling \$21,000), the issuance of a compliance order, and the initiation of a hazardous facility order. Eight warning letters were sent to operators for probable violations of the regulations that did not warrant the imposition of more stringent enforcement actions. After the operators had been granted an opportunity to respond to the notices of probable violations, two orders specifying corrective actions to be taken were issued, and one operator was assessed a civil penalty of \$1,000, which was subsequently collected. One enforcement case was closed by the withdrawal of the notice of probable violation. Two cases were closed after a review of remedial actions taken by the operators. (See Appendix C.) Eight cases remained active at the end of 1982, two of which awaited completion of action directed under compliance orders.

Table 3

Profile of National Surveillance and Enforcement of
Gas Pipeline Systems 1982

	MTB	State Agencies	Total
Person Days Utilized in Performing Inspections	319	21,500	21,819
Enforcement Actions Initiated	62	2,472	2,534
Penalties Assessed No.	2	6	8
Amt.	\$16,000	298,500	314,500
Penalties Collected No.	2	6	8
Amt.	3,000	239,220	242,200

Detail of State Penalty Data

State	Penalties Assessed		Penalties Collected	
	No	Amt	No	Amt
Arizona	1	250,000	1	210,000
Florida PSC	2	19,000	2	10,000
New Hampshire	2	16,500	2	6,500
Vermont	1	13,000	1	12,720
Total	6	298,500	6	239,220

Table 4

**1982 GRANT-IN-AID ALLOCATIONS
AND
STATE AGENCY INSPECTION DATA**

State	Grant-in-Aid Allocation	No. of Inspectors	No. of Gas Operators Inspected	Inspections made in Person days	Non- Compliance Found	Enforcement Actions Taken
Alabama	66,785	7	194	976	138	81
Arizona	27,283	3	11	185	61	2
Arkansas	49,112	4	192	348	188	3
California	80,769	5	5	220	140	0
Colorado	47,657	2	72	231	51	11
Connecticut	42,000	3	5	55	3	3
Delaware	6,638	2	3	85	1	— 2/
Florida PSC	58,626	5	68	610	154	50
Florida ST	31,226	5	113	314	318	1
Georgia	55,201	4	121	457	177	177
Hawaii	8,750	1	1	173	0	0
Idaho	14,374	1	17	116	22	0
Illinois	64,226	8	138	707	44	44
Indiana	49,480	3	105	251	32	12
Iowa	25,628	4	45	272	87	3
Kansas	29,825	3	109	301	165	0
Kentucky	68,571	5	48	368	242	57
Louisiana	115,763	7	106	1,621	1,777	940
Maine	10,731	1	2	30	0	0
Maryland	33,428	2	12	30	4	0
Massachusetts	29,907	18	14	459	6	— 2/
Michigan	71,410	12	52	370	50	0
Minnesota	22,427	1	18	89	97	14
Mississippi	56,523	4	162	574	584	57
Missouri	43,093	4	22	207	155	155
Montana	13,553	2	15	41	5	0
Nebraska	35,651	10	541	363	38	1
Nevada	26,702	1	5	53	9	0
New Hampshire	21,380	1	7	37	8	2
New Jersey	62,143	4	4	328	1	— 2/
New Mexico	47,740	3	80	92	145	21
New York	169,145	26	32	3,392	4,080	4
North Carolina	55,507	3	30	413	115	31
North Dakota	7,980	2	9	23	32	1
Ohio	58,434	3	44	537	2	0
Oklahoma	53,370	4	94	355	47	0
Oregon	42,495	1	11	64	67	30
Pennsylvania	83,040	3	43	1,010	57	57
Rhode Island	49,631	3	16	326	1	1
South Carolina	— 1/	3	41	454	106	77
Tennessee	65,520	5	191	893	56	0
Texas	164,035	16	915	2,612	2,194	562
Utah	21,000	2	50	217	48	38
Vermont	13,770	1	19	139	18	18
Virginia	50,740	4	14	111	44	10
Washington	39,926	2	26	104	18	0
West Virginia	57,019	5	76	237	26	0
Wisconsin	56,496	4	16	175	470	0
Wyoming	58,919	4	231	251	52	0
Dist. of Columbia	28,000	2	1	56	0	0
Puerto Rico	14,104	5	1	168	0	0
	<u>\$2,405,733</u>	<u>240</u>	<u>4,147</u>	<u>21,500</u>	<u>12,335</u>	<u>2,472</u>

1/ South Carolina did not participate in the federal grant program.

2/ These states operate under 5(b) certifications under which probable violations are reported to DOT for action. Delaware and New Jersey reported one probable violation each for DOT action.

Table 5

STATE JURISDICTION AS OF DECEMBER 31, 1982

+ = has jurisdiction 0 = none in state 0 = does not have jurisdiction s = seeking jurisdiction p = partial jurisdiction

STATE	Gathering Lines in Non-rural areas	Transmission	Privately owned Distribution Public Utilities	Privately owned Facilities not Public Utilities Under State Law	Municipally Owned Distribution Systems	Other Publicly Owned Distribution Systems	Petroleum Gas	Master Meter	Offshore Facilities
Alabama	+	+	+	+	+	0	+	+	0
Arizona	0	+	+	+	+	0	+	0 s	0
Arkansas	+	+	+	+	+	+	+	+	0 0
California	+	+	+	0 s	0 s	0	0 s	0 s	+ 0
Colorado	+	+	+	+	+	+	+	+	0
Connecticut	+ 0	+	+	+	+	+	+	+	+ 0
Delaware	+ 0	+	+	0	0	0	+	+	0 0
Florida PSC	0	+	+	+	+	+	0	+	0 0
Florida ST	0	0	0	0	0	0	+	+	0
Georgia	0	+	+	+	+ p	0	0	+	0
Hawaii	0	+	+	0	0	0	+	0	0
Idaho	0	+	+	0	0	0	+	+	0
Illinois	+	+	+	+	+	+ 0	+	+	+ 0
Indiana	+	+	+	+	+	+	+	+	0
Iowa	0	+	+	+	+	0	+	+	0
Kansas	+	+	+	0	+	0	+	0	0
Kentucky	+	+	+	+	0	+	0	0	0 0
Louisiana	+	+	+	+	p	p	0	0	0
Maine	+	+	+	0	+	+	0 s	0	0
Maryland	0 0	+	+	0	+	+	+	0	0 0
Massachusetts	0	+	+	0	+	0 0	0	0	0
Michigan	+	+	+	+	0 0	0 0	+	+	0 0
Minnesota	+	+	+	+	+	+	+ p	+	0
Mississippi	+	+	+	+	+	+	+	+	+
Missouri	0	+	+	0	+	0	p	0	0
Montana	0 0	+	+	0	+	0 0	0	0	0 0
Nebraska	0	+	+	+	+	0	+	+	+
Nevada	0 0	+	+	+ p	0 0	0	+ p	0	0 0
New Hampshire	0 s	+	+	0 s	0 s	+	+	+	+
New Jersey 5(b)	0 0	+	+	0	0	0 0	+ p	0	0 0
New Mexico	+	+	+	+	+	+	+	+	0
New York	+	+	+	+	+	+	+	0	+
North Carolina	0	+	+	+	+	0	+ p	+	0
North Dakota	+	+	+	+	+	0	+	+	0
Ohio	+	+	+	0	+	0 0	+ p	+	0
Oklahoma	0	+	+	+	+	+	+	0	0
Oregon	+ 0	+	+	+ p	+ 0	+	+	+	+ 0
Pennsylvania	+ p	+ p	+	0	0 s	0	+ p	0	0 0
Rhode Island	+ 0	+	+	+	+ 0	+ 0	+	+	+
South Carolina	0	+	+	+	+	+	0	+	0
Tennessee	+	+	+	+	+	+	+	+	0
Texas	+	+	+	+	+	+	+	+	+
Utah	+	+	+	+	+	+	+	+	0
Vermont	0	+	+	+	0	0	+	0	0
Virginia	0	+	+	0	0	0	+	0	0
Washington	0 0	+	+	+	+ p	0 0	+	+	+ 0
West Virginia	+	+	+	+	+	+	0	+	0
Wisconsin	0 0	+	+	+	+	+	0	0	0 0
Wyoming	+	+	+	+	0	0	+	0	0
Dist. of Columbia	0	+	+	0	0	0	0	0	0
Puerto Rico	0	+	+	0	0	0	+	0	0

Number of
States having
jurisdiction

27

50

60

33

35

23

39

29

11

Table 6

QUALIFICATIONS OF STATE PERSONNEL (TECHNICAL) 1982

STATE	No. Cat. A	No. Cat. B	No. Cat. C	No. Cat. D	No. Cat. E	Total No. Inspectors
Alabama	0	1	4	2	0	7
Arizona	0	1	1	1	0	3
Arkansas	0	0	1	3	0	4
California	5	0	0	0	0	5
Colorado	2	0	0	0	0	2
Connecticut	2	1	0	0	0	3
Delaware	1	1	0	0	0	2
Florida PSC	3	1	1	0	0	5
Florida ST	0	0	5	0	0	5
Georgia	0	1	1	2	0	4
Hawaii	0	0	1	0	0	1
Idaho	0	1	0	0	0	1
Illinois	0	3	3	2	0	8
Indiana	1	0	2	0	0	3
Iowa	0	2	2	0	0	4
Kansas	0	0	2	1	0	3
Kentucky	0	3	2	0	0	5
Louisiana	0	6	1	0	0	7
Maine	0	1	0	0	0	1
Maryland	0	1	0	1	0	2
Massachusetts	2	2	0	6	8	18
Michigan	4	5	2	1	0	12
Minnesota	0	1	0	0	0	1
Mississippi	0	1	2	1	0	4
Missouri	0	2	2	0	0	4
Montana	2	0	0	0	0	2
Nebraska	0	0	1	3	6	10
Nevada	0	1	0	0	0	1
New Hampshire	1	0	0	0	0	1
New Jersey	0	3	0	1	0	4
New Mexico	0	3	0	0	0	3
New York	2	22	1	0	1	26
North Carolina	0	2	1	0	0	3
North Dakota	1	0	1	0	0	2
Ohio	1	1	3	1	0	6
Oklahoma	0	0	2	2	0	4
Oregon	1	0	0	0	0	1
Pennsylvania	2	2	2	0	0	6
Rhode Island	0	0	1	2	0	3
South Carolina	0	1	2	0	0	3
Tennessee	0	5	0	0	0	5
Texas	0	2	3	7	4	16
Utah	0	1	1	0	0	2
Vermont	1	0	0	0	0	1
Virginia	0	4	0	0	0	4
Washington	1	1	0	0	0	2
West Virginia	0	5	0	0	0	5
Wisconsin	0	4	0	0	0	4
Wyoming	4	0	0	0	0	4
Dist. of Columbia	0	2	0	0	0	2
Puerto Rico	0	0	4	0	2	6
TOTAL	36	93	54	36	21	240

STATE INSPECTOR QUALIFICATION CATEGORIES

- A. Has an engineering degree from an accredited engineering school or is a registered professional engineer, with a minimum of three years of experience in gas or liquid transmission and/or distribution pipelines.
- B. Has an engineering degree from an accredited engineering school, or is a registered professional engineer, or has over ten years of gas or liquid transmission and/or distribution experience which demonstrates in-depth knowledge of pipeline engineering technology, particularly as related to pipeline safety.
- C. Has a college degree or over five years of experience as a state pipeline inspector monitoring gas or liquid operators in regard to their compliance with state and Federal pipeline safety regulations.
- D. Has less than five years of experience as a state pipeline inspector monitoring gas or liquid operators in regard to their compliance with state and Federal pipeline safety regulations.
- E. Has less than one year of experience as a state pipeline inspector monitoring gas or liquid operators in regard to their compliance with state and Federal pipeline safety regulations.

NOTE:

The experience listed in categories A and B refers to actual on-the-job experience working for a pipeline company involved with gas or liquid distribution, transmission, or both. Individuals with no actual pipeline experience still qualify for category B as long as they have an engineering degree from an accredited college or university or are registered by the respective state as a registered professional engineer.

PIPELINE FAILURES AND INVESTIGATIONS

Natural Gas Pipelines

The requirements for the reporting of gas pipeline leaks and system failures are contained in Section 191 of Title 49 of the Code of Federal Regulations and describe the criteria for reportability--damage thresholds, exclusions, time requirements, and methods of reporting. In addition to the obvious regulatory implications of this incident reporting requirement the data collected serve yet another purpose. Incorporated into an incident data base, this information becomes part of MTB's comprehensive Hazardous Materials Information System that provides the operational and statistical information necessary to perform accident and cost benefit analyses and various studies that support rulemaking and enforcement programs.

Accident Data

The 1,711 system failures reported in 1982 resulted in 31 fatalities and 266 injuries, an approximate 5% increase compared to 1981 data. Over 51% of the fatalities and 38% of the injuries occurred from the explosions and fires that followed outside force damage to pipeline systems. A ten year summary of pipeline failures and casualties appears in Table 7.

Outside force damage continues to be the primary cause of gas system failures (sixty-one percent of all reported cases in 1982). (See figure 2.) For a number of years the Department has identified excavation damage as a serious pipeline safety problem, but because most damage is the result of activities by persons not subject to the authority of gas pipeline operators or the Department, success in seeking solutions to the problem has been minimal at best. Many utility companies have established a communications system known as a "one-call system" whereby a city, county, or other local jurisdiction or entity establishes one telephone number to be called by all prospective excavators to advise pipeline and utility operators of the time and location of intended excavation. On the basis of accident investigations and studies, the National Transportation Safety Board has identified a direct relationship between these and similar damage prevention programs and low excavation damage rates. Consequently, MTB in 1982 issued a regulation, with an effective date of April 1983, that requires operators of gas pipelines in populated areas to establish or participate in an excavation damage prevention program that meets minimum performance criteria. Through this means, MTB expects to minimize the devastating effects of this stubborn problem. Accident data are displayed by cause in Table 8.

TABLE 7
SUMMARY OF GAS PIPELINE ACCIDENTS AND CASUALTIES REPORTED FROM 1972-1982
AS REQUIRED BY 49 CFR PART 191

Report Year	<u>Distribution</u>			<u>Transmission and Gathering</u>			<u>Total</u>		
	Failures	Fatalities	Injuries	Failures	Fatalities	Injuries	Failures	Fatalities	Injuries
1972	884	28	294	409	6	36	1,293	34	330
1973	893	33	333	471	2	19	1,364	35	352
1974	1,017	20	314	460	4	20	1,477	24	334
1975	979	8	220	394	6	17	1,373	14	237
1976	1,036	53	319	543	10	47	1,579	63	366
1977	1,530	29	420	466	7	30	1,996	36	450
1978	1,555	20	320	533	11	86	2,088	31	406
1979	1,520	33	313	450	12	93	1,970	45	406
1980	1,467	9	269	529	2	41	1,996	11	310
1981	1,128	10	73	495	6	6	1,623	16	79
1982	1,191	20	225	520	11	41	1,711	31	266

FIGURE 2

***GAS PIPELINE
ACCIDENTS BY CAUSE
1982***

TOTAL - 1711

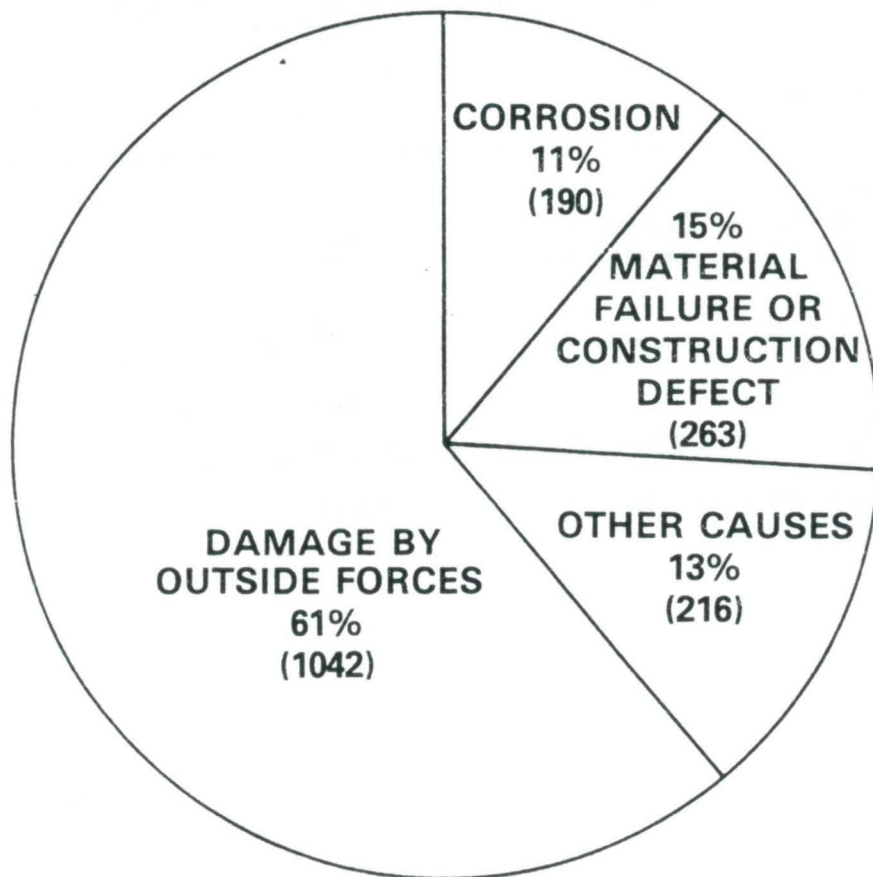


Table 8

**ACCIDENTS AND CASUALTIES REPORTED BY
GAS SYSTEM OPERATORS DURING CY 1982**

Distribution Systems

Cause	No. of Failures	Fatalities	Injuries
Corrosion	100	1	18
Damage by Outside Forces	826	11	88
Construction Defect or Material Failure	89	7	36
Other Causes	176	1	83
TOTAL	1,191	20	225

Transmission and Gathering Systems

Cause	No. of Failures	Fatalities	Injuries
Corrosion	90	1	4
Damage by Outside Forces	216	5	14
Construction Defect or Material Failure	174	5	2
Other Causes	40	0	21
TOTAL	520	11	41
GAS INDUSTRY TOTALS	1,711	31	266

Accident Investigation

Under the provisions of Section 304 of the Independent Safety Board Act of 1974, investigation of pipeline accidents in which there is at least one fatality and/or substantial property damage is primarily the responsibility of the National Transportation Safety Board. State agencies which also investigate accidents under the terms and rights of their legislated authority reported conducting 545 such investigations in 1982. (See Table 9.) Rather than duplicate these efforts MTB plays a supportive role in these investigations, assisting as needed, but focusing on the degree of compliance with the federal safety standards--whether these standards have been violated and if enforcement actions should be initiated.

Three accidents of major significance occurred in 1982--in Centralia, MO; Portales, N.M.; and Hudson, Iowa. A brief description of these events as reported by the National Transportation Safety Board follows:

Centralia, MO

About 10:30 a.m., c.s.t., on January 28, 1982, at Centralia, Missouri, natural gas at 47 psig entered a low pressure distribution system which normally operated at 11 inches water column (0.40 psig) after a backhoe bucket snagged, ruptured, and separated the 3/4-inch-diameter steel pressure regulator control line at the Missouri Power and Light Company's district regulator station No. 1. The backhoe, which was owned and operated by the City of Centralia, was being used to clean a ditch located adjacent to the regulator station. The high pressure gas entering customer piping systems in some cases resulted in high pilot light flames which ignited fires in buildings; while in other cases, the pilot light flames were blown out, allowing gas to escape within the buildings. Of the 67 buildings affected by the overpressure, 12 were destroyed and 32 sustained moderate to heavy damage. At one point, 44 houses and businesses were burning at the same time. Five persons received minor injuries.

The National Transportation Safety Board determined that the probable cause of the accident was the rupture of a pressure regulator control line by a city operated backhoe and the isolation by the gas company of a related relief valve which allowed natural gas at 47 psig to enter the low pressure distribution system, rather than to vent to the atmosphere. Contributing to the accident was the failure of city officials to notify the gas company of its excavation operations and the failure of the gas company to take prompt action to adjust the relief valve and restore it on line.

TABLE 9

GAS PIPELINE ACCIDENTS INVESTIGATED BY STATE AGENCIES 1982

STATE	Total No.	A	B	C	D
		Corrosion	Damage by Outside Forces	Construction Defect or Material Failure	Other
Alabama	1	0	0	1	0
Arizona	121	5	76	9	31
Arkansas	5	1	4	0	0
California	38	2	20	3	13
Colorado	6	1	4	0	1
Connecticut	5	0	0	1	4
Deleware	0	0	0	0	0
Florida PSC	31	3	12	3	13
Florida S. Treas.	1	0	0	0	1
Georgia	0	0	0	0	0
Hawaii	0	0	0	0	0
Idaho	2	0	2	0	0
Illinois	11	1	1	0	9
Indiana	4	0	1	0	3
Iowa	16	1	6	1	8
Kansas	4	1	0	1	2
Kentucky	17	1	3	1	12
Louisiana	6	0	2	0	4
Maine	0	0	0	0	0
Maryland	1	1	0	0	0
Massachusetts	6	1	0	1	4
Michigan	20	1	3	8	8
Minnesota	23	0	13	4	6
Mississippi	1	0	1	0	0
Missouri	10	0	2	1	7
Montana	6	0	2	0	4
Nebraska	6	2	1	3	0
Nevada	4	0	0	0	4
New Hampshire	0	0	0	0	0
New Jersey	4	0	0	0	4
New Mexico	5	0	5	0	0
New York	18	1	9	3	5
North Carolina	3	0	2	0	1
North Dakota	2	0	2	0	0
Ohio	9	3	4	2	0
Oklahoma	1	0	0	0	1
Oregon	0	0	0	0	0
Pennsylvania	25	4	15	6	0
Rhode Island	4	0	0	0	4
South Carolina	1	0	1	0	0
Tennessee	3	0	1	1	1
Texas	75	4	23	29	19
Utah	2	0	2	0	0
Vermont	1	0	0	0	1
Virginia	7	1	0	2	4
Washington	5	0	3	0	2
West Virginia	12	2	4	2	4
Wisconsin	18	0	2	6	10
Wyoming	5	0	2	0	3
Dist. of Col.	0	0	0	0	0
Puerto Rico	0	0	0	0	0
TOTAL	545	36	228	88	193

Portales, N.M.

At 3:20 a.m., m.d.t., on June 28, 1982, a natural gas explosion demolished a house, killed five persons, and critically injured one person at 827 West 18th Street in Portales, New Mexico; the critically injured person died later at a burn treatment center. The gas service line to the house had been damaged 37 days earlier when a contractor's backhoe pulled up the line during conduit excavation work for the local telephone company. At the same time the line was pulled out at the excavation site, the line was pulled out of a compression coupling buried under the street. The pullout at the excavation site was repaired, but the pullout under the street was not repaired until after this accident because the gas company did not detect it when it happened.

The National Transportation Safety Board determined that the probable cause of the accident was the failure of the gas company to carefully inspect a damaged service line and to apply a pressure test from the gas main to the meter once the line was reconnected. Contributing to the accident was the failure of the gas company to provide complete information to the contractor regarding the location of service lines due to incomplete data and information on maps and records at its distribution facilities.

Hudson, Iowa

About 2:15 p.m., c.s.t., on November 4, 1982, a tile plow installing field drainage tile on a farm located 4 miles west of Hudson, Iowa, struck and punctured a well-marked 20-inch diameter natural gas transmission pipeline. Natural gas escaping at about 820 psig ignited immediately, and the ensuing explosion and fire killed five persons, destroyed five pieces of excavation machinery and two pickup trucks, and burned several acres of soybean stubble.

The National Transportation Safety Board determines that the probable cause of the accident was the puncture of a 20-inch diameter gas transmission pipeline by a contractor's tile plow, due to the contractor's failure to inform the pipeline company and to have the depth of the pipeline checked at a new crossing point when he changed his work plans. The accident might have been avoided had the pipeline company inspector remained on the job site until tiling operations in the vicinity of the pipeline had been completed.

As indicated by the NTSB report, the probable cause in each case was damage to the pipeline as a result of excavation activity. It is as a result of the increasing frequency of these incidents that MTB initiated rulemaking action requiring pipeline operators to establish or participate in damage prevention programs.

Hazardous Liquid Pipelines

Liquid pipeline failure and casualty statistics for 1982 reveal a reduction in all categories of data compared to 1981. The 200 reported failures, which resulted in six injuries and one fatality represents a decrease of 16% in reported failures, 80% in fatalities and 81% in injuries. Thirty-four percent of all incidents was attributable to outside force damage from equipment while corrosion was cited as the cause in 28% of the cases. Detailed accident data appear in Tables 10 and 11.

Table 10

SUMMARY OF LIQUID PIPELINE ACCIDENTS AND CASUALTIES FROM 1972 to 1982

Report Year	Failures	Fatalities	Injuries	Total Commodity Loss (bbl)
1972	306	1	16	344,350
1973	273	7	10	377,672
1974	256	10	6	292,001
1975	254	7	17	318,278
1976	212	5	4	249,690
1977	237	3	15	224,794
1978	256	3	10	280,794
1979	251	4	13	548,669
1980	219	3	12	289,445
1981	239	5	32	214,384
1982	200	1	6	221,411

TABLE 11

SUMMARY OF LIQUID PIPELINE ACCIDENT REPORTS RECEIVED IN 1982

ACCIDENT SUMMARY BY CAUSE:

Cause or Commodity	No. of Accidents	% of*	Loss (Barrels)	% of*	Damages			% of*	Deaths**		Injuries**	
					Carrier	Other	Total		Total	Empl	Nonempl	Total
INTERNAL CORROSION	12	6.00	11,495	5.19	29,271	12,600	41,871	2.83	0	0	0	0
EXTERNAL CORROSION	43	21.50	32,746	14.79	14,202	12,100	26,302	1.78	0	0	0	4
DEFECTIVE WELD	6	3.00	10,850	4.90	13,375	1,600	14,975	1.01	0	0	0	0
INCORRECT OPERATION	8	4.00	9,647	4.36	256,400	5,500	261,900	17.69	0	0	0	0
DEFECTIVE PIPE	7	3.50	7,455	3.37	4,190	1,500	5,690	.38	0	0	0	0
EQUIP. RUPT. LINE	68	34.00	94,839	42.83	211,398	261,270	472,668	31.93	0	1	0	2
OTHER	56	28.00	54,379	24.56	392,921	264,200	657,121	44.38	0	0	0	0
TOTAL	200	100.00	221,411	100.00	921,760	558,770	1,480,530	100.00	0	1	0	6

ACCIDENT SUMMARY BY COMMODITY:

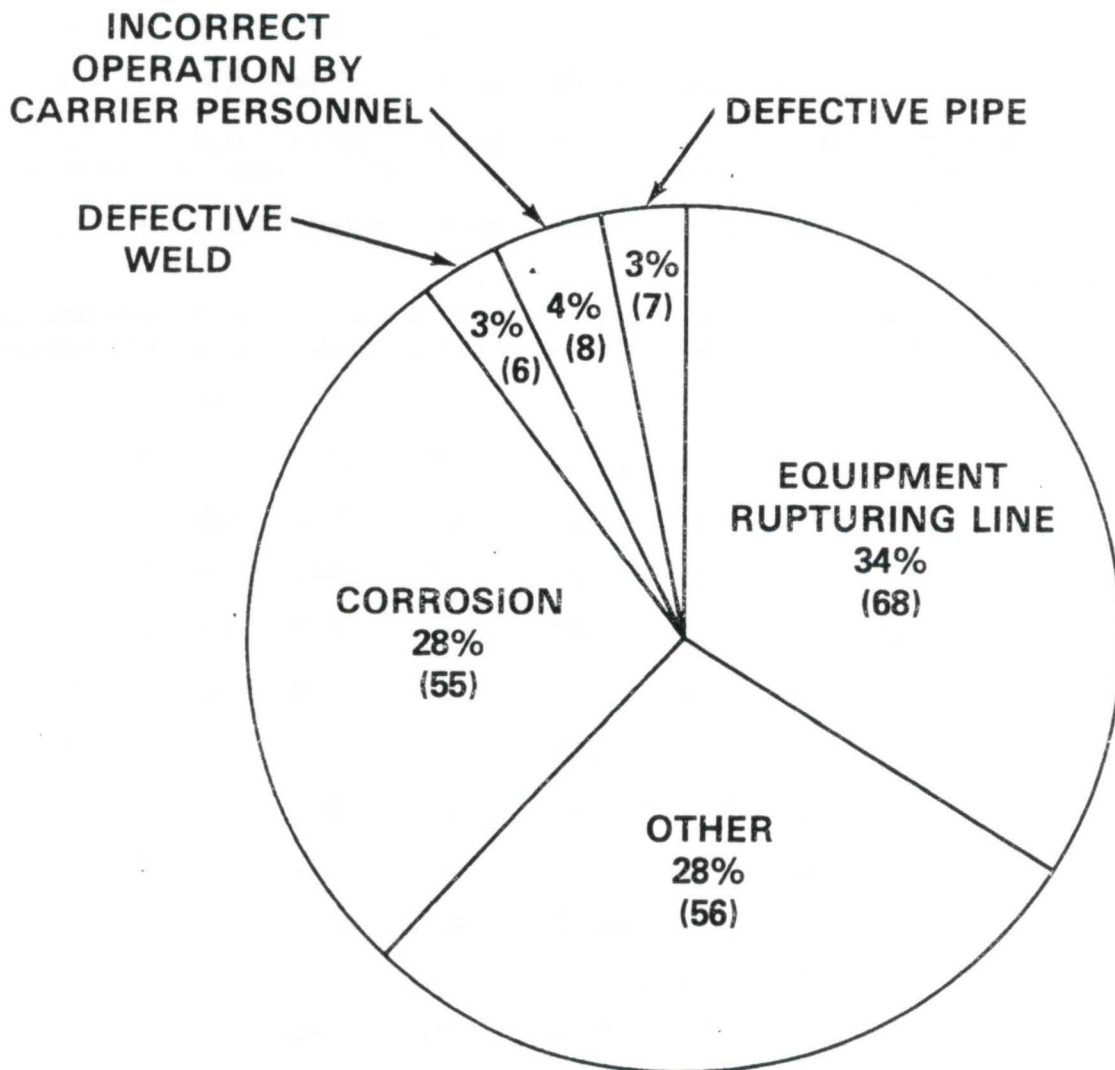
Cause or Commodity	No. of Accidents	% of*	Loss (Barrels)	% of*	Damages			% of*	Deaths**		Injuries**	
					Carrier	Other	Total		Total	Empl	Nonempl	Total
ALKYLATE	0	.00	0	.00	0	0	0	.00	0	0	0	0
CRUDE OIL	102	51.00	126,018	57.82	324,015	206,050	530,065	35.80	0	0	0	0
GASOLINE	35	17.50	40,356	18.23	27,217	8,070	35,287	2.38	0	0	0	0
NATURAL GAS LIQUID	4	2.00	3,345	1.51	250,003	0	250,003	16.89	0	0	0	4
FUEL OIL	12	6.00	4,479	2.02	24,995	19,400	44,395	3.00	0	1	0	1
L. P. G.	22	11.00	23,579	10.65	145,652	101,450	247,102	16.69	0	0	0	1
JET FUEL	10	5.00	5,343	2.41	1,213	0	1,213	.08	0	0	0	0
DIESEL FUEL	4	2.00	2,231	1.01	2,665	500	3,165	.21	0	0	0	0
ANHYDROUS AMMONIA	4	2.00	2,008	.91	700	1,300	2,000	.14	0	0	0	0
KEROSENE	3	1.50	1,580	.71	123,800	216,000	339,800	22.95	0	0	0	0
TURBINE FUEL	0	.00	0	.00	0	0	0	.00	0	0	0	0
OIL AND GASOLINE	4	2.00	10,474	4.73	21,500	6,000	27,500	1.86	0	0	0	0
CONDENSATE	0	.00	0	.00	0	0	0	.00	0	0	0	0
TOTAL	200	100.00	221,411	100.00	921,760	558,770	1,480,530	100.00	0	1	0	6

*Percentages Rounded **Empl = Carrier Employee Nonempl = Non-employee

FIGURE 3

LIQUID PIPELINE ACCIDENTS BY CAUSE 1982

TOTAL - 200



PIPELINE SAFETY RESEARCH

Fracture Mechanics Study

The National Bureau of Standards (NBS), under contract with MTB, continued to develop weld flaw size criteria for evaluating the acceptability of pipeline circumferential girth welds. Such criteria would be utilized by MTB in considering a possible modification to the present regulations which would permit use of "fitness for purpose" criteria to determine weld flaw acceptability.

High Strength-Low-Alloy Arctic Line Pipe Steels

The Bureau's regulatory activities on Arctic pipelines have shown that specifications referenced by 49 CFR Part 192 for steel line pipe are necessarily general and a number of supplemental provisions are needed for Arctic line pipe. Much of the information now available on prerequisites for high-strength Arctic line pipe has been prepared by various consultants, research organizations, and engineering firms that have been engaged in Arctic construction, and cannot be readily obtained without a laborious literature search. To facilitate access to this information, MTB has engaged a contractor to assimilate worldwide information and technical data on manufacturing capabilities, specification of supplemental requirements, and welding and repair technologies for Arctic line pipe and other high-strength low-alloy pipe of the Grade X-70 type made to the API 5 LX specifications that may be used in major cold climate projects.

Repair of Plastic Pipe

Recognizing potential safety problems in the use of stainless steel band clamps for repair of plastic pipe used in natural gas distribution, MTB initiated a technical review of industry data and information on the subject. An analysis of various safety test data provided by manufacturers of the product in support of the practice, was inconclusive inasmuch as the manufacturing standards and testing procedures lacked uniformity. Study of the safety issue continues with new input from the American Society of Mechanical Engineers and the American Society for Testing and Materials. Both organizations are supporting the effort and have begun work on establishing criteria for the use and testing of plastic pipe clamps.

TRAINING AND EDUCATION

Information Dissemination

MTB maintains an extensive library of pipeline safety information and educational material that is designed to acquaint and sensitize the industry and the public to the issues of pipeline safety and the regulatory and compliance requirements of the federal safety regulations. This information, provided upon request to interested organizations, industry groups, and the general public, is assembled and available in various publications. Included among these are the federal pipeline safety regulations; notices of proposed rulemaking; a quarterly Pipeline Safety Newsletter (the single most effective organ for dissemination of regulatory, technical and training information); pamphlets containing safety information for use in industrial and general publications; and reports on the results of studies funded by MTB on different aspects of pipeline safety. Additionally, formal presentations to state agencies and industry groups can be arranged. Added to this list in 1982 was the new "Guidance Manual for Operators of Small Gas Systems"--developed to assist operators of small gas systems to understand the regulatory requirements with which they are expected to comply. To date, MTB has distributed over 16,000 copies of this document. The manual, along with an accompanying slide/tape presentation designed for training purposes, was also distributed to each state and regional pipeline office, where it is being used to train large groups of "master meter" and small gas system operators.

Safety Training Program

MTB's safety training program activities continued with a high degree of success in 1982 under joint MTB and state agency staff direction. The Transportation Safety Institute, the primary provider of MTB sponsored training, in addition to offering courses at its Oklahoma facility conducted a series of seminars on pipeline safety issues in convenient locations across the country. This series of seminars, in effect, brought pipeline safety training to most states which, because of budgetary constraints, were under a prohibition of travel for training purposes.

MTB-sponsored training programs enable participating state agencies to increase both the scope and quality of their gas pipeline safety programs, while providing MTB personnel with an opportunity for direct contact with state and industry representatives to explain the Federal regulations and provide technical assistance. Course offerings are routinely updated to accurately reflect regulatory and technological changes. In 1982, courses offered included such subjects as: Failure and Noncompliance Investigative Techniques, Joining of Gas Pipeline Materials, Corrosion Control Systems, Pressure Regulation, Overpressure Protection,

Regulation Compliance Requirements and Liquefied Natural Gas Safety Technology and Inspection. (See Table 12.) The nine residential courses and 16 seminars on these subjects attracted an attendance of 1,337 federal, state, and industry personnel. (See Table 13.) Seminar and training emphasis for the next year will be on Amendment No. 192-40--Damage Prevention Program. This amendment is designed to alleviate excavation damage, the leading cause of pipeline failures.

Table 12
PIPELINE SAFETY COURSES CONDUCTED BY TSI 1982

	No. of Classes	Students Trained		
		State & Other	Federal	Total
Failure and Noncompliance Investigative Techniques	2	45	2	47
Joining of Gas Pipeline Materials	1	21	3	24
Gas Pressure Regulation and Overpressure Protection	1	28	0	28
Safety Evaluation of Gas Pipeline Systems	1	24	1	25
Safety Evaluation of Gas Pipeline Corrosion Systems	2	48	1	49
Liquefied Natural Gas Safety Technology & Inspection	1	21	3	24
Safety Regulations Requirements for Gas Pipeline Operators	1	22	0	22
TOTAL	9	209	10	219

Table 13
SUMMARY FOR 1982 TRAINING CONDUCTED BY TSI

No. of Resident Classes	No. of Resident Students	No. of Seminars	No. of Seminar Students	Total No. Trained
9	219	16	1,118	1,337

ALASKA NATURAL GAS TRANSPORTATION SYSTEM

The Alaska Natural Gas Transportation System (ANGTS) is the largest privately-financed construction project ever undertaken and has been given special status by the Alaska Natural Gas Transportation Act of 1976. The act provided for appointment by the President of a Federal Inspector who has the authority to enforce all Federal permit stipulations, regulations and other authorizations including pipeline safety regulations for ANGTS as part of the project oversight responsibilities. Executive Order 12142 requires each Federal agency having statutory responsibilities over any aspect of the ANGTS to appoint an Agency Authorized Officer (AAO) to represent that agency on all matters pertaining to pre-construction, construction, and initial operation of the system. The AAO's are detailed to and physically located within the Office of the Federal Inspector. The Department of Transportation's Agency Authorized Officer (AAO) is organizationally located within MTB and represents the interest of all administrations within DOT having statutory responsibility in this project.

The Project

The Alaska Natural Gas Transportation System (ANGTS) is being developed as four major pipeline segments. The Alaskan segment will be constructed and operated by Northwest Alaskan Pipeline Company, the Canadian segment by four Canadian companies, an Eastern leg (from Montana to Chicago) by Northern Border Pipeline Company, and a Western leg (from Idaho to San Francisco) by Pacific Gas Transmission Company and Pacific Gas and Electric Company. The 4,753-mile system will have a nominal capacity of 2.6 billion cubic feet of gas per day.

Parts of the Canadian segment and the Eastern and Western legs are being constructed early on a "prebuild" basis in order to transport Alberta gas to the U.S. prior to completion of the Alaskan segment. Phase I of the "prebuild" segments of the Western leg and the Eastern leg were completed in October 1981 and 1982 respectively and Canadian gas is being transported through both sections. The construction on the Alaskan segment has been delayed once again due to current uncertainties in world financial markets, natural gas prices and the current excess in world energy supplies. The new anticipated completion date is now 1989.

MTB's Technical Involvement

In 1982, MTB focused its technical efforts on monitoring the construction of the Eastern leg. One issue that demanded much of MTB's attention during this period was the problem of girth weld integrity. An audit of the radiographs of girth welds made during the 1981 construction season revealed a number of welds which did not meet the DOT welding

standards. Northern Boarder Pipeline Company sought and was granted a waiver from DOT standards to repair rather than remove the already buried defective welds, upon providing sufficient justification and well-documented and tested repair procedures, sufficient to satisfy MTB that safety would not be compromised.

OUTSTANDING PROBLEMS

Several problem areas persist as impediments to a fully effective Federal pipeline safety program.

Performance Standards

The Federal standards incorporate by reference many private sector specifications. Although this approach simplifies the federal task of regulating the safety of highly technical subjects, it does not permit the pipeline industry to take full advantage of technological innovations in materials and design practices. Until these private sector specifications are amended to include innovations, and the later editions of referenced documents are added to the regulations, use of these more current and often more efficient safety practices are denied the regulated industry. To resolve this problem of costly delays without decreasing the level of safety, MTB is working to adopt performance standards that pipeline companies may follow in lieu of the referenced specifications. Performance standards allow pipeline companies to use the latest technology provided certain safety performance criteria are met. Where the private sector has acceptable performance standards for a subject in need of Federal regulation, MTB will consider referencing these standards instead of creating new ones. For example, a committee of the American Society of Mechanical Engineers is being encouraged to develop performance standards for steel pipe as part of its B31.8 pipeline code. If found to be satisfactory for regulatory purposes, the new performance standards will be included in Part 192 as an alternative to the referenced specifications for steel pipe.

Liquefied Natural Gas (LNG) Plants

Part 193 of Title 49 of the Code of Federal Regulations requires that new LNG facilities be surrounded by an exclusion zone of low population to protect against the hazards of vapor dispersion from a potential LNG spill. Most existing LNG plants are used in direct conjunction with gas distribution systems, and are often located in populated areas. High population levels and associated development make it uneconomical to provide exclusionary zones for many new LNG facilities pipeline companies may wish to install at existing plant sites. As a consequence, some plants designed for future expansion are stymied in development, and some companies cannot take full advantage of LNG as a source of gas. While alternative safety measures to the use of exclusionary zones have been proposed, none has been tested sufficiently to assure an acceptable level of safety. In 1983, MTB, in cooperation with the Coast Guard, will conduct research on the behavior of cold gas spills to better define the level of hazard presented by a potential spill of LNG. MTB's long term objective is to develop a general safety standard that is

more economical to apply than the present exclusionary zone standard, but which still provides an acceptable level of safety for communities that surround LNG plants.

State Program Administration

The problem of maintaining the momentum of the Pipeline Safety Program at the state level continued into 1982. While budget constraints at both the federal and state levels remained, MTB and the states sought, through a number of inventive means to maintain the highest level of program effectiveness. By prioritizing their enforcement efforts to focus on areas of greatest potential risk and by capitalizing on MTB-provided training to ensure competency of their inspection staff, most states were able to maintain the same level of activity as in 1981. The grant-in-aid program provides the catalyst for states participation in the gas pipeline safety program. Experience has shown that where an aggressive state compliance program is in effect, operator efforts at system safety have been significantly increased. Elimination or reduction of the grant program would materially reduce state participation to the detriment of public safety. MTB will intensify its efforts to encourage continued state participation at a level and degree of effectiveness that will ensure a viable and successful pipeline safety program.

Intrastate Liquid Pipelines

The Hazardous Liquid Pipeline Safety Act (HLPSA) authorized the Department to regulate the safety of intrastate hazardous liquid pipelines. However, for the Department to fully comply with the provisions of the Act, Part 195 of the 49 CFR, which in its present form applies only to interstate pipelines, must be modified to cover intrastate hazardous liquid pipelines as well. This action is needed so that state agencies may participate in the cooperative enforcement program authorized by Section 205 of the Act. During 1983, MTB will assess the safety performance of these intrastate pipelines and the costs and benefits of extending the existing safety standards in Part 195, to cover them as well.

APPENDIX A

Amendments to 49 CFR Parts 191, 192, 193, and 195 issued in 1982

Amendment 191-4	Reporting Addressee Changes
Amentment 192-39	Metal Alloy Fittings in Plastic
	Pipelines
192-40	Damage Prevention Program
192-41	Incorporate by Reference
192-42:193-3	Incorporate by Reference
192-43:195-24	Inspection and Test Intervals
Technical Amendments	Units of Measurement Editorial
	Correction

Waivers

Transcontinental Gas Pipeline Corporation
Tennessee Gas Pipeline Company
Northern Border Pipeline Company
Northern Border Pipeline Company

195-22	-	Editorial Corrections
195-25	-	Weld Filler Metal
Notice of Proposed Rulemaking	-	Retention of Radiographic Film
Withdrawal of Notice of Proposed Rulemaking	-	Location of Weld Seams

**DEPARTMENT OF TRANSPORTATION
Research and Special Programs
Administration**

49 CFR Parts 191 and 195

[Amdts. No. 191-4 and 195-23; Docket No. PS-71]

Transportation of Natural and Other Gas and Hazardous Liquids by Pipeline; Change of Telephone Number and Addressee for Reporting Leaks and Accidents

AGENCY: Materials Transportation Bureau (MTB), DOT.

ACTION: Final rule; Technical amendment.

SUMMARY: This amendment changes the telephone number used by gas and liquid operators to report certain leaks and accidents from the present toll charge number to a toll free number. Also, the addressee for written reports of leaks and accidents is changed to comport with organizational responsibilities. This amendment will reduce the cost to pipeline operators by providing a toll free number that they may use, without increasing the cost to government.

DATE: This amendment becomes effective October 27, 1982. This date provides time for operators to make arrangements for compliance.

FOR FURTHER INFORMATION CONTACT: Ralph T. Simmons, 202-426-2392. Copies of the amendment may be obtained from the Dockets Branch, Room 8426, Materials Transportation Bureau, U.S. Department of Transportation, 400 7th Street, S.W., Washington, DC 20590.

**SUPPLEMENTARY INFORMATION:
Telephonic Reports**

At present, § 191.5(b) requires gas operators to use the telephone number (202) 426-0700 to give notice of certain leaks, and § 195.52(b) requires the use of the same number by hazardous liquid pipeline operators for giving notice of certain accidents. The cost of calls is paid for by the operators.

In contrast, carriers who transport hazardous materials by modes other than pipeline are permitted by 49 CFR 171.15 to report certain hazardous materials incidents to the Department

on the toll free telephone number 800-424-8802 (in Washington, D.C., 426-2675).

Due to administrative changes, it is now possible for MTB to receive the telephone reports of gas and liquid pipeline operators on the same toll free number used by other carriers of hazardous materials, thus permitting the Department to maximize the benefits of that phone. This amendment to Parts 191 and 195 effectuates these changes. It will reduce the cost to pipeline operators by providing a toll free number that they may use, without increasing the cost to government.

Written Reports

In §§ 191.7, 195.54, 195.58, and 195.62, the addressee for submitting written reports of leaks and accidents and obtaining copies of report forms is stated as "Chief, Information Systems Division, Transportation Programs Bureau." Due to organizational changes, this addressee is changed to "Information Systems Manager, Materials Transportation Bureau."

In the interim until this amendment to Parts 191 and 195 takes effect, operators may report incidents on either the existing or new number and use either the old or new addressee. After the amendment becomes effective, only the new toll free number and addressee may be used.

Because this document does not substantively change the requirements in Parts 191 and 195 for reporting certain pipeline leaks and accidents, notice and public procedure are unnecessary, and in accordance with 5 U.S.C. 553, the amendment is final.

Also, since the amendment will have a positive effect on the economy of less than \$100 million a year, will result in a cost savings to consumers, industry, and government, and no adverse effects are anticipated, this action is not "major" under E.O. 12291 or "significant" under DOT procedures.

List of subjects

49 CFR Part 191

Pipeline safety. Reporting and recordkeeping requirements.

49 CFR Part 195

Ammonia, Petroleum, Pipeline safety. Reporting and recordkeeping requirements.

PART 191—TRANSPORTATION OF NATURAL AND OTHER GAS BY PIPELINE; REPORTS OF LEAKS

PART 195—TRANSPORTATION OF HAZARDOUS LIQUIDS BY PIPELINE

In consideration of the foregoing, Parts 191 and 195 of Title 49 of the Code of Federal Regulations are amended as follows:

1. The authority citation for Part 191 is:

Authority: 49 U.S.C. 1671 et seq.; 49 CFR 1.53 and Appendix A to Part 1.

2. The authority citation for Part 195 is:

Authority: Sec. 203, Pub. L. 96-129, 93 Stat. 1004, 49 U.S.C. 2002; 49 CFR 1.53 and Appendix A to Part 1.

§§ 191.5 and 195.52 [Amended]

3. Sections 191.5(b) and 195.52(b) are amended by removing the words and numerals "area code (202) 426-0700" and inserting in their place the words and numerals "800-424-8802 (in Washington, D.C., 426-2675)".

§§ 191.7, 195.54, 195.58, and 195.62 [Amended]

4. Sections 191.7, 195.54, 195.58, and 195.62 are amended by removing, each place that it appears, the words "Chief, Information Systems Division, Transportation Programs Bureau," and inserting in their place the words "Information Systems Manager, Materials Transportation Bureau,".

Issued in Washington, D.C., on July 20, 1982.

L. D. Santman,

Director, Materials Transportation Bureau.

[FR Doc. 82-20425 Filed 7-28-82; 8:45 am]

BILLING CODE 4910-60-01

DEPARTMENT OF TRANSPORTATION

Research and Special Programs
Administration

49 CFR Part 192

(Amdt. 192-39; Docket OPSO-37)

Transportation of Natural and Other
Gas by Pipeline; Metal Alloy Fittings in
Plastic PipelinesAGENCY: Materials Transportation
Bureau (MTB), RSPA, DOT.

ACTION: Final rule.

SUMMARY: This final rule removes the requirement in § 192.455(f)(3) that a means be provided for identifying the location of each metal alloy fitting that is installed without coating and cathodic protection in plastic pipelines. The identification requirement is unnecessary for safety and hinders the use of corrosion resistant metal alloy fittings to mechanically join plastic pipe and components.

DATE: This final rule takes effect April 7, 1982.

FOR FURTHER INFORMATION CONTACT:
L. M. Furrow; 202-426-2392.

SUPPLEMENTARY INFORMATION: Fittings made of corrosion resistant metal alloys are available for use to mechanically join lengths of plastic pipe and plastic components. These fittings have both safety and economic advantages. For one, mechanical joints may be made by personnel who do not have the added skills required for other methods of joining plastic pipe (see § 192.285). More important, however, a properly selected alloy (matching the alloy with the environment) can protect a buried fitting against electrochemical corrosion without the added expense of cathodic protection.

Before 1977, the use of corrosion resistant metal alloy fittings in plastic pipelines was hindered by MTB's corrosion control regulations (§§ 192.455 and 192.465) aimed at preventing or mitigating corrosion on buried or submerged metal pipelines, including metal fittings in plastic pipelines. Under corrosive conditions, ordinary metal fittings in plastic pipelines can corrode rapidly, causing gas leaks that could threaten public safety. To guard against this result, before 1977 § 192.455 required that all metal fittings be coated and cathodically protected, and then periodically inspected under § 192.465. The cost of materials and labor to comply with these corrosion control measures outweighed the safety and economic benefits from using corrosion resistant metal alloy fittings in plastic

pipelines. However, in 1977, MTB considered documented tests and experience (Notice 76-1, 41 FR 42221, Sept. 21, 1976) showing that under various corrosive environments, properly selected metal alloy fittings in plastic pipelines can provide sufficient protection against electrochemical corrosion. Thus, a new paragraph (f) was added to § 192.455 to conditionally except these fittings from the cathodic protection and inspection requirements (Amendment 192-28; 42 FR 35653, July 11, 1977).

Three conditions were established in § 192.455(f) to qualify metal alloy fittings for the exception from the coating and cathodic protection requirements: First, there must be evidence that in the area of application, corrosion will be controlled by alloyage. Second, the fitting must have a design that prevents leakage from localized corrosion pitting. Third, the pipeline operator must have some means to identify the location of each fitting that is installed.

The first condition was adopted to ensure that fittings are made from alloys that have been proven effective against corrosion in the soils in which the fittings are to be used. The second condition recognizes that even under the best circumstances some corrosion pitting can occur, and in the absence of coating and cathodic protection, the fitting's design is the final safeguard against leakage. Because of the relatively small amount of field experience with alloy fittings in plastic pipelines that had occurred by 1977, and the consequent uncertainty in predicting long range corrosion protection, the third condition was established to ensure that operators keep track of any fittings installed so that remedial action could readily be taken if needed in the future.

Looking toward possible relaxation of the conditions under § 192.455(f), MTB has sought to obtain more information about the long-term corrosive effects on alloy fittings in plastic pipelines. For example, in the preamble to the final rule document establishing the conditional exception, MTB requested that operators report the conditions of alloy fittings that are uncovered, paying special attention to leakage and corrosion performance. To date, all the information received about the susceptibility of alloy fittings to corrosion has pointed toward deleting the § 192.455(f)(3) condition as costly and unnecessary for safety.

While the bulk of the information has come from observations by MTB or State field enforcement personnel, or reports made to them, one major gas distribution company, the Pacific Gas

and Electric Company (PG&E), has prepared an extensive written finding of its experience with alloy fittings in California soils. The PG&E report dated May, 1980, (a copy of which is in the public docket) shows that out of 362 samples from the approximately 942,000 Type 316 stainless steel alloy fittings manufactured by AMP, Inc., and installed between 1969 and 1979 in a broad range of soil conditions (soil resistivity from 330 to 100,000 ohm.cm; pH from 4.4 to 9) none exhibited any corrosive effects. This report substantiates preliminary findings made by PG&E in a 1976 study of 200 fittings which formed a basis for the notice of proposed rulemaking that preceded Amendment 192-28.

In addition to requesting reports from operators, MTB also sought advice on the need for § 192.455(f)(3) from the Technical Pipeline Safety Standards Committee, a statutory advisory committee made up of 15 knowledgeable persons from both the public and private sectors who are qualified to evaluate pipeline safety regulations. In its report of a meeting held January 17, 1978, the Committee, by unanimous vote, recommended that § 192.455(f)(3) be deleted on grounds that the rule serves no useful purpose and it adds to cost without a commensurate safety benefit.

In a petition (P-17) dated September 21, 1981, AMP Incorporated, a manufacturer of stainless steel fittings for plastic pipelines, argues for removal of the paragraph (f)(3) limitation. AMP states that its fittings made from AISI Series 300 stainless steels "provide a sufficient, long-term safeguard against corrosion, and obviate the need to subject them to additional location recordkeeping requirements." As a basis for its argument, AMP points to its sale since 1967 of over 15,000,000 metal alloy fittings to more than 160 operators throughout the United States, without having received any reports of corrosion failures.

AMP furthers its argument by detailing (in an appendix to the petition) the administrative costs of complying with paragraph (f)(3) by the use of computerized data banks to provide for immediate identification of each fitting installed under § 192.455(f). Although the rule does not require that operators have such means of identification (a mere card index system might suffice, using ordinary business records kept for customer services), according to the petition, operators who choose to comply in this way may spend as much as \$22,500 in start-up costs, with on-going industry-wide costs in excess of \$500,000 annually.

In addition to the financial costs of complying with paragraph (f)(3), MTB feels the biggest drawback of this provision is the inhibiting effect it has on the use of corrosion resistant alloy fittings to mechanically join plastic pipe components. As previously mentioned, joining plastic pipelines with corrosion resistant alloy fittings has safety and economic advantages over other joining techniques. The main purposes of issuing Amendment 192-28 was to allow operators and the public to fully realize these advantages. Since it appears that most operators are reluctant to utilize alloy fittings and also comply with the identification requirement of § 192.455(f)(3), then paragraph (f)(3) essentially frustrates the main purpose of Amendment 192-28 and should be removed unless it is needed for safety. As to the safety need for paragraph (f)(3), the evidence points to the contrary.

In summary, since Amendment 192-28 was issued, there has been an accumulation of favorable information about the effects of corrosion on alloy fittings that reduces the prior uncertainties about their long-term behavior in corrosive environments. In addition, § 192.455(f)(2) provides a redundant safeguard against the potential harmful effects of corrosion, should any occur. In view of these factors and the added costs and inhibiting effects of providing a means for later identification of the location of each fitting that is installed, MTB is by this document repealing § 192.455(f)(3).

Because this document grants relief from a regulatory burden for which there is no apparent need, a notice and comment period would be unnecessary, and in accordance with 5 U.S.C. 553, the repeal of § 192.455(f)(3) is final. Also, since this final rulemaking action will have a positive effect on the economy of less than \$100 million a year, will result in a cost savings to consumers, industry, and government agencies, and no adverse effects are anticipated, the action is not "major" under E.O. 12291 or "significant" under DOT procedures.

PART 192—TRANSPORTATION OF NATURAL AND OTHER GAS BY PIPELINE: MINIMUM FEDERAL SAFETY STANDARDS

In consideration of the foregoing, § 192.455(f) of Part 192 of Title 49 of the Code of Federal Regulations is revised to read as follows:

**§ 192.455 External corrosion control:
Buried or submerged pipelines installed
after July 31, 1971.**

(f) This section does not apply to electrically isolated, metal alloy fittings in plastic pipelines. If—

(1) For the size fitting to be used, an operator can show by tests, investigation, or experience in the area of application that adequate corrosion control is provided by alloyage; and

(2) The fitting is designed to prevent leakage caused by localized corrosion pitting.

[49 U.S.C. 1672; 49 CFR 1.53 and Appendix A to Part 1]

Issued in Washington, D.C. on March 2, 1982.

L. D. Santman,

Director, Materials Transportation Bureau.

[FR Doc. 82-6045 Filed 3-5-82; 8:45 am]

BILLING CODE 4910-60-M

49 CFR Part 192**[Amdt. No. 192-40; Docket No. PS-59]****Transportation of Natural and Other
Gas by Pipeline; Damage Prevention
Program****AGENCY:** Materials Transportation
Bureau (MTB), Research and Special
Programs Administration, DOT.**ACTION:** Final rule.

SUMMARY: This final rule implements section 3(a)(2) of the Natural Gas Pipeline Safety Act of 1968 (49 U.S.C. 1672(a)(2)) by requiring gas pipeline operators to have or participate in a damage prevention program to reduce the risk of excavation damage to buried pipelines in populated areas. Excavation damage is the leading cause of gas pipeline accidents.**DATE:** This final rule becomes effective April 1, 1983. The delayed effective date will permit operators time to prepare for compliance by participating in programs

already in existence or to begin their own programs.

FOR FURTHER INFORMATION CONTACT: Ralph T. Simmons, 202-426-2392. Copies of the final rule and documents related thereto may be obtained from the Dockets Branch, Room 8428, Materials Transportation Bureau, U.S. Department of Transportation, 400 7th Street, SW., Washington, D.C. 20590.

SUPPLEMENTARY INFORMATION:

Background

To reduce the risk of excavation damage to underground gas pipelines, the leading cause of pipeline accidents MTB issued a Notice of Proposed Rulemaking (NPRM) (44 FR 65792; November 15, 1979) proposing to amend Part 192 by adding a new § 192.614 to require each operator of a buried gas pipeline in populated areas to establish and carry out, or otherwise participate in, a damage prevention program. Modeled after successful "one-call" programs, the NPRM set forth criteria that an operator's program would have to meet, including public notice, receipt of calls about pending excavation, and prompt response in locating and marking pipelines. The proposed rule was the initial step in complying with section 3(a)(2) of the NGPSA (49 U.S.C. 1672(a)(2)) that requires the issuance of this final rule.

Interested persons were given until February 15, 1980, to comment on the proposed amendment. One hundred and one different persons submitted comments. The comments were from gas utilities and gas transmission companies, their trade associations, State and Federal agencies, industry standard-making bodies, and consultant firms to the gas industry. Also, several comments were received from one-call systems.

In accordance with Section 4 of the NGPSA (49 U.S.C. 1673), the Technical Pipeline Safety Standards Committee (TPSSC) met in Washington, D.C., on April 15-17, 1980, to review the technical feasibility, reasonableness, and practicability of the amendment proposed in the NPRM. In general, the TPSSC favored the proposed rule, but suggested a number of modifications. A copy of the Committee's report is available in the docket. A discussion of any rejection of the views of the TPSSC is given below in the discussion of the sections of the final rule involved.

Cost Impact

The final rule is non-major under Executive Order 12291. The Order defines a major rule as one which has an annual effect on the economy of \$100

million, a major increase in costs, or a significant adverse effect on the economy. As shown by the cost benefit analysis for this proceeding, this final rule will have no such impact. The final rule is also not a significant rule as defined by the Department of Transportation Policies and Procedures (DOT Order 2100.5).

The Regulatory Flexibility Act (94 Stat. 1164, 5 U.S.C. 601) requires a review of a proposed regulation issued after January 1, 1981, for its effect on small businesses, organizations, and governmental bodies. Although in this case a notice of proposed rulemaking was issued prior to January 1, 1981, the effect on the segments of the public covered by the Regulatory Flexibility Act has been assessed. These regulations will not have a significant economic impact on such small businesses or organizations because they have been excepted from the final rule. While small government bodies who operate pipelines are not excepted from the final rule, it will not have a significant impact on them because a large number of them are already covered by one-call systems. Also the cost to small municipalities will not be great because the charge for participating in one-call systems is based upon the miles of pipelines owned by the operator or the number of services; plus many of the small operators are often given a cost discount as an inducement to join to prevent any gaps from occurring in the system. Furthermore, a municipality which requires a permit for excavation activities may use its permit procedures with little additional modification to meet the requirements of § 192.614.

It is therefore certified, pursuant to section 605(b) of the Regulatory Flexibility Act, that this regulation will not have a significant economic impact on a substantial number of small entities.

Effect on State Laws

In accordance with section 3(a) of the NGPSA (49 U.S.C. 1672(a)(1)), any State may adopt additional or more stringent safety standards for damage prevention programs and linemarkers with respect to intrastate pipeline transportation as are not incompatible with the standards being established by this amendment to Part 192. However, States may not adopt or continue in force any such standards applicable to interstate transmission facilities. Therefore, any State standards governing damage prevention programs or linemarkers for intrastate pipeline transportation that meet the compatibility test of section 3(a) will not

be preempted by the new Federal standards.

Under section 5 of the NGPSA (49 U.S.C. 1674), the safety standards issued under the NGPSA generally may not be enforced by MTB against intrastate pipeline transportation in a State in which a State agency submits an annual certification stating, among other things, that it has adopted and is enforcing such standards under State law. Newly issued Federal standards that apply to intrastate pipeline transportation are enforceable by MTB under the NGPSA until a State agency adopts those standards under State law and submits another annual certification. In the case of the new damage prevention program standards, however, section 101(c) of the Pipeline Safety Act of 1979 (49 U.S.C. 1672 note) provides that the new standards "shall not apply with respect to annual certifications under section 5 during the 2-year period which begins on the effective date of such requirements." This provision allows State agencies that do not have compatible damage prevention program standards additional time they may need to adopt and enforce the new Federal standards, while continuing to participate in the certification and grant-in-aid program under section 5 with respect to the other Federal gas pipeline safety standards. In States that take advantage of this provision, the result will be to extend for up to 2 years the period within which the new Federal damage prevention program standards are enforceable by MTB with respect to intrastate pipeline transportation that is subject to the jurisdiction of those certified State agencies.

General Comments on Proposed § 192.614

1. Eighty commenters stated that to burden pipeline operators instead of excavators with regulations designed to prevent excavation damage is inequitable and results in increased cost of transportation at a questionable increase in public safety. Although it is true that by this rule MTB is requiring pipeline companies to shoulder the costs of damage prevention, while perpetrators of damage pay nothing above their liability for damages, society does expect these pipeline companies, as transporters of hazardous commodities, to take every reasonable precaution against harm to the public, regardless of the cause. This societal objective is expressed in section 3(a)(2) of the NGPSA, which requires any operator of gas pipelines facilities to participate in a damage prevention program which the Secretary determines

is being carried out in a manner adequate to assure protection; or to take steps as the Secretary shall prescribe to provide services which are comparable. Furthermore, this policy is supported by studies cited in the NPRM showing that damage prevention programs are the best way to minimize harm from excavation damage. For example, the National Transportation Safety Board has, on the basis of accident investigation and special studies, identified a direct relationship between effective excavation damage prevention programs and low excavation damage rates. In addition, as set forth in the cost/benefit study for this final rule, the program benefits to the industry as a whole outweigh the costs. For example, a reduction in excavation damage to an operator's pipeline would result in benefits to the operator by reducing the cost of repairing the damage, loss of service to his customers, and by savings in the gas which would be lost if a rupture occurs as a result of the damage. Moreover, there are societal benefits that result from fewer injuries and deaths. Because of the duty operators must meet to prevent harm to the public and because these "one-call" programs have proven themselves cost effective, MTB does not agree that the operator responsibility imposed by this rulemaking is inequitable.

2. Thirty commenters recommended that MTB continue to encourage States to enact legislation placing the burden of conducting a damage prevention program on both utility operators and excavators. MTB's efforts to encourage States to enact legislation were discussed fully in the NPRM, and the results of those efforts were shown to have been mixed and inconsistent. Furthermore, because participation in an acceptable State-sanctioned or State-operated program can satisfy the requirements of the new rule, there should be a sufficient incentive for operators to lobby the States to enact appropriate legislation.

3. Four transmission companies and two trade associations argued that unlike distribution companies, transmission systems and gas gathering lines should not be required to have damage prevention programs, because they have relatively small amounts of pipeline in Class 3 or 4 areas. Moreover, they noted that the bulk of their Class 3 piping occurs where transmission lines pass an inhabited building or recreation center located in an otherwise rural area, as defined by § 192.5(d)(2), and it would be impractical to run separate programs for these segments. Similarly, the TPSSC objected to applying the

proposed damage prevention program to segments of transmission pipelines in a Class 3 location solely by application of § 192.5(d)(2).

MTB recognizes the unique situation of operators who have short segments of their pipelines placed in Class 3 locations by application of the requirements of § 192.5(d)(2). In addition to transmission lines and gathering lines, there may also be distribution mains that fall into this situation. It would be impractical for an operator to develop and run or participate in a damage prevention program specifically for each short segment of its pipeline in rural areas which is in a Class 3 location as defined by § 192.5(d)(2). In addition, a program run just for these Class 3 areas would be of little benefit because of low population and excavation activity. Therefore, the final rule excepts segments of pipelines placed in Class 3 locations solely by application of the requirements of § 192.5(d)(2), provided the pipeline is marked in that Class 3 area in accordance with § 192.707.

Except as just discussed, MTB is of the opinion that it is just as necessary for transmission and gathering line systems in populated Class 3 and 4 areas to have a damage prevention program as it is for a distribution system. While the fewer number of transmission and gathering lines in these areas compared to distribution lines obviously has resulted in fewer accidents, excavation damage to these lines in populated areas would result in the public being placed at just as great a risk as it would be if the same damage occurred to a distribution pipeline. In fact, for transmission lines, the risk could be greater because they are normally larger pipelines and operate at much higher pressures than distribution pipelines. Also, it does not appear logical to require that a distribution main, which may traverse the same area as a transmission or gathering pipeline, meet the requirements of the damage prevention regulation and not require a transmission or gathering line in the same area and carrying the same product to meet the same requirement.

4. Thirty-seven commenters argued that the proposed rule was too specific and that any final rule should be written in performance language. The final rule has been written in performance language.

Operator controlled rights-of-way

In the preamble to the NPRM, MTB invited comments on the extent to which the proposed requirements should apply to systems whose operators own or have control over the property traversed by the pipelines. Those operators

generally are municipalities and persons who transport gas in conjunction with renting property, such as managers of mobile home parks or public housing projects and operators whose pipeline facilities are enclosed by physical barriers restricting public access to such facilities.

There were eleven comments received on this topic. Five of the commenters stated that all operators should be covered by the proposed rule, unless they have absolute control of access to the rights-of-way and can prevent any excavation on the property without their knowledge. They reasoned that mobile home parks are often small cities with uncontrolled public rights-of-way, and that since municipally-owned systems utilize the same methods as private companies for the location of their facilities (e.g., easements or streets and rights-of-way dedicated to public use), it would not be any more appropriate to except them than privately-owned systems. These commenters also argued that managers of mobile home parks and municipalities generally have minimal damage prevention programs; therefore, it would lessen the effectiveness of the final rules to except them from coverage.

Another commenter reiterated support for "control of access" being a basis for exception by stating that a mobile home park owner or housing project manager who can control access to his property should also be able to control excavation activities.

Several other commenters stated that all municipally-owned systems exceeding a minimum threshold of customers should be required to have a damage prevention program, while those under the minimum should be excepted from coverage. The commenters did not give the number of customers for the threshold or a rationale for the comment.

Additionally, one trade association commented that all liquefied petroleum gas (LP-Gas) operators should be excepted from coverage because it is inconceivable that any excavation work could take place without the knowledge of the LP-Gas dealer and/or the property owner. Additionally, the association said that LP-Gas systems are regularly serviced by LP-Gas truck drivers/delivery men, providing an opportunity for detection of excavation activity, and that above ground tanks or underground tank domes are visible remainders of the presence of gas lines.

MTB is aware that many segments of all types of gas pipelines and pipeline facilities in Class 3 or 4 locations are contained within physical barriers which restrict public access to the

pipelines or facilities. Such restricted access lessens the chance of excavation damage because the operator would know of any excavation activity within the barriers and would take steps to protect the gas pipeline and facilities. The final rule, therefore, excepts pipelines to which access is physically controlled by the operator.

MTB is not persuaded that an operator's control over its right-of-way short of physical control of access is sufficient reason to except pipeline facilities from the damage prevention program. Without physical control of entry, mere ownership of a right-of-way is not a sufficient deterrent to excavation damage since it is too easy for excavation to occur without the operator's knowledge, making it even less likely that an operator would voluntarily mark the pipelines near a planned excavation. Thus, no further exceptions than physical control of right-of-way, as discussed above, are adopted in this final rule.

Similarly, even though a municipality may control excavation activity on its rights-of-way within its jurisdiction through permits or licensing procedures, MTB does not have any information which shows that this exercise of control by the municipalities has resulted in a lessening of damage to pipelines by excavation activities. As proposed in the NPRM, MTB has made municipally-owned facilities subject to the final rule.

Although a strong argument can be made in support of including LP-Gas and master meter systems in the final rule, MTB does not now have sufficient statistical data to clearly demonstrate that a certain number of incidents caused by outside force damage will be prevented by applying the final rule to LP-Gas and master meter systems.

In the future, if adequate statistical data is available to clearly demonstrate the value of the benefits of requiring LP-Gas and master meter systems to have a damage prevention program, MTB will reconsider requiring them to have a damage prevention program at that time. In the meantime, MTB chooses not to impose on LP-Gas and master meter systems, a requirement which is of unproven value, and these systems are excepted from compliance as set forth in § 192.614(c)(4).

The following portion of this preamble discusses specific sections of the proposed rule that received significant comment.

Section 192.614(a)—Definition of "Excavation Activity"

One commenter recommended expanding the definition of "excavation

activity" to mean: "Any operation in which any structure, earth, rock, or other mass of material in or on ground is moved, including without limitation, wrecking, razing, grading, trenching, digging, ditching, drilling, augering, tunneling, scraping, cable plowing, rock plowing, and pile driving activity."

MTB believes the definition of "excavation activity," as given in less detail in the NPRM, is broad enough to cover all the earth-moving activities that can reasonably be expected to cause damage to a pipeline. Therefore, MTB has not adopted the commenter's recommendation for the final rule. However, for emphasis, the final rule does include in the definition the removal of above ground structures.

Section 192.614(b)(1)—Identification of Excavators

Fifty-one commenters thought that the term "semiannually" should be changed to "annually" with respect to how often an operator must determine who in an area is engaging in excavation activities. The reasons given were: Impossible to do semiannually because of the numerous number of contractors involved; the requirement is excessive; most one-call systems and operators' programs now do it once a year; there would not be any greater benefit from doing it semiannually, but it would increase the cost; and the mobility of the contractors make it impossible to keep track of them.

Six commenters asked that the proposed determination requirement be deleted.

MTB agrees that to require semiannual determination of the names of persons who are normally engaged in excavation or demolition would be excessive. The mobility of the people engaged in such operations would make compiling and keeping up-to-date such a list a monumental and expensive task in larger metropolitan areas. Furthermore, MTB believes that if an operator has or participates in a program which includes the features of notifying the excavation and demolition industry and the general public in the operator's Class 3 and 4 areas of operations of the program's existence, advising them how to get information from the program, and encouraging them to participate, that the large majority of persons engaged in excavation or demolition activities will become aware of the program and participate.

MTB does not agree with the commenters who recommended that the proposed § 192.614(b)(1) be deleted. If a program of informing a certain segment of the public is to be successful, the informer must be able to identify those

who are to be informed. For this reason, MTB believes that it is necessary for each operator to determine who is most likely to engage in activities that may cause damage to pipelines so that information concerning the damage prevention program may be sent to them directly.

Also, the Gas Research Institute study, "Prevention of Third Party Damage to Gas Pipelines Final Report for 1980", on page 41 states: The five major utilities, their employees and their subcontractors account for well over 50 percent of the damage incidents. * * * When the associated road construction and general construction damage incidents are included * * * well over three-fourths of the damages are caused by personnel who are professionally and regularly involved in excavation activities on or near * * * the utility trenches." Given the above, it follows that the majority of the outside force damage to gas pipelines is done by a well defined group of professionals which is readily identifiable and once identified should remain fairly constant. Thus, after the initial identification process, it should be relatively simple to keep a current list of excavators for any given area.

Therefore, MTB has amended the proposal in the final rule (§ 192.614(b)(1)) to permit the operator more flexibility of action in determining those persons who are normally engaged in excavation activities in his Class 3 and 4 area of operation. In the final rule, a period for updating lists of excavators is not prescribed. Rather, an operator will have to make an initial determination, and then keep the findings current.

Section 192.614(b)(2)—Notification of damage prevention program

Fifty-two commenters opposed the proposed requirement that excavators be notified of the damage prevention program by newspaper ads and direct mailings. Their reasons were that the proposal was restrictive in that it would not allow the operator to pick the best method for his operation; that most notices would be lost in large city newspapers and newspaper ads are expensive; that most of the damage is done by fly-by-night contractors, and newspaper ads would not reach them; and that the ads would probably be ineffective because of the mobility of excavators and much of the work being done by out-of-towners.

Two commenters stated that the proposal was vague, inasmuch as the required content of the notice was not furnished. They also said a required

program is unnecessary since posted signs and public records provide notice to the excavators of the location of the pipeline.

In addition, commenters objected to the proposed semiannual notification of excavators and the public as too inflexible.

MTB agrees with the commenters' statement that the proposal as written may have been too restrictive and would not have allowed the flexibility necessary for operators to develop information programs that would promote the desired response. MTB also concurs that newspaper ads could be expensive, and might not produce the desired response from the public or would not provide the reinforcement of the message that other, more permanent types of notification might. MTB also agrees that the transient nature of the excavation industry makes it unlikely that some members would be aware of notices or ads placed in local newspapers. In consideration of these factors, MTB has modified the proposal in the final rule (§ 192.614(b)(2)) to require that the public be notified of the program functions and that known excavators be given actual notice of the program. Operators may use any methods of notification that are designed to achieve the desired results in their Class 3 and 4 areas of operation. The frequency of notification would be based on the extent to which excavators and the public are aware of the program. As awareness increases, as judged by participation, fewer notices could be given.

MTB does not agree with the commenters who stated that the proposal was vague because it did not contain the required content of the notice. If MTB were to spell out the specific wording a notice must contain, the final rule would be too rigid, inasmuch as different wording may be desirable in different locations and sections of the country because of the types of operations being performed and methods of informing the public which may be available to the operator. Furthermore, to specify the wording the notice must contain would not be in keeping with MTB's objective of writing this final rule in performance language.

MTB does not agree with the statement that posted signs and public records provide sufficient notice to the excavator of the location of the pipeline. This has not proven true in the past, and MTB does not have any indications to the effect that posted signs and public records will prove to be any more effective in the future. While a sign may alert an excavator to the presence of a pipeline, it normally does not mark the

location as precisely as temporary marking in a "one-call" program. Also, public records such as permits, licenses, and right-of-way information will not provide the precise location with the necessary reliability for an excavator's use to prevent accidental damage to a pipeline. For these reasons, the commenters' recommendations were not adopted for the final rule.

Section 192.614(b)(4) (i), and (ii) (A) and (B)—Providing information

There were thirty-six commenters who opposed the proposed requirements of § 192.614(b)(4)(i) that callers be told immediately if there are pipelines in the area of planned excavation. The reasons for their opposition were that most one-call systems do not have the capability of furnishing the required information, and to impose such requirements would destroy the one-call systems as they are presently constituted; that it is not feasible to expect that the one-call systems could maintain current records of the utility location in their area; and that no responsible operator would accept the responsibility of permitting third parties to give out facility locations because of the possible liability involved.

Seventy-two commenters were opposed to the proposed requirements of § 192.614(b)(4)(ii)(A) regarding the details about a pipeline to be given to callers. Their arguments were that most of the details would not be available to the person receiving the call; that providing the required information at the first call would encourage excavators to begin work without waiting for field marking; and that giving the pressure in the pipeline could mislead excavators to believe that damage to a low pressure line is not as hazardous as damage to a high pressure line.

Thirteen commenters opposed § 192.614(b)(4)(ii)(B), as proposed, regarding telling callers the type and time of marking to be provided. Their reason was that the surface at the work site determines the markings to be used, and the surface(s) involved could not be determined by telephone.

After review of the comments received and further investigation of the issues in § 192.614(b)(4) (i) through (ii)(B), MTB agrees with the commenters that it would not be appropriate to require that detailed information about pipeline location, characteristics, and type or time of marking be given out upon receipt of notice of planned excavation. Indeed, giving details about pipelines upon receipt of notice could be counterproductive for public safety. However, since comments on this section opposed basically the time at

which information is given to excavators and not the giving of information, MTB still believes that persons planning to engage in excavation activities should be told before such activities begin whether there are pipelines in the area and if so, the type of temporary marking that is to be provided and when the marking will be completed. Giving out this information early in the process should deter excavators from farging ahead with the work should they feel a "one-call" system has not been responsive to their calls. Therefore, MTB has incorporated in the new § 192.614(b)(4) these notification provisions of paragraph (b)(4) of the NPRM, but revised them to permit the information to be given at some time after notice of excavation is received.

Section 192.614(b)(5)(i)—Temporarily Marking Pipelines

Two commenters stated that strict compliance with the proposed requirement to mark pipelines before excavation begins would be impossible as the operator has no control over when work commences.

MTB does not wholly agree with the commenters' statement. True, the operator has no control over when work commences, but a main purpose of the damage prevention program is to facilitate preconstruction cooperation and planning between the operator and excavators. MTB believes that a well planned and operated damage prevention program will facilitate preconstruction communication between parties, thereby reducing the chance that excavation activities will commence before the pipelines in the area of the proposed activities are properly located and marked or that marking of pipelines would be too far in advance of excavation.

The proposal in subparagraph (b)(5)(i) of the NPRM has been modified in the final rule, however, by qualifying the intent that marking be done before excavation begins with the words "as far as practical." This change recognizes that operators may not in every instance be able to complete marking prior to the beginning of excavation activities because of the vagaries of persons doing the excavation.

Section 192.614(b)(5)(ii)—Inspection requirements

1. Sixty-one commenters were opposed to the proposal to inspect pipelines during and after excavation activities. Their reasons were that field inspections of all pipeline excavations during and after excavation is unnecessary, unrealistic, and

economically unfeasible; the operator should be allowed to determine which excavation should be inspected based upon his experience as to the probability of damage occurring; the support of the pipeline is a factor in only a small number of cases; it is the excavator's responsibility to notify the operator of any damage caused by his activities; and the proposal would place the burden of liability on the operator and not on the excavator where it belongs.

Many said that inspection would be excessively expensive. One commenter estimated it would cost his company over 4 million dollars a year to comply; another estimated cost at three million dollars a year, and several estimated their cost would be from two million to three million dollars a year.

Five commenters were opposed on the basis that inspection of the pipeline should continue to be the responsibility of the excavator as currently required by the Occupational Safety and Health Administration under 29 CFR Part 1926, Subpart P, section 651(a).

After reviewing the comments made on the proposed requirements of subparagraph (b)(5)(ii), MTB believes that most of the commenters interpreted the proposal to mean that an inspector must be on the job site at all times that excavation activities are taking place. This was not MTB's intent. MTB's intent was to require inspection during and after excavation activities to the extent that is necessary to verify the integrity of the pipeline.

MTB recognizes the responsibility of the excavator to notify the operator of any damage he may cause to the pipeline. MTB's concern is that the pipeline may have its coating damaged and its cathodic protection interfered with in such a manner that it would negate the protection afforded the pipeline. Also small dents, scratches, or gouges could occur or its support be undermined so that excessive stress could be set up in the pipeline that could cause failure at a later date. These causes of failure may not be recognized and reported by even the most conscientious excavator as being significant enough to be reported to the operator; therefore, inspection of the pipeline is necessary. This is shown in the following examples. The National Transportation Safety Board's special study, "Prevention of Damage to Pipelines" Report Number: NTSB-PSS-73-1 states that a 2-inch high-pressure gas main, which was apparently damaged during sewer construction several months before the accident, leaked gas and caused an explosion completely destroying a house, killing a

mother and two children, and injuring seven other children.

The study further quotes a Prince Georges County, Maryland, ad hoc committee as stating that " . . . statistics show that hits still seem to occur at an alarming rate after lines have been located and marked prior to digging. This would indicate that contractors and subcontractors must assume a lion's share of the blame since their workmen not only damage the lines, but according to County Fire Department and gas company records, fail to exercise good judgment to safeguard the public in many cases. Such workmen often conceal their damages and proceed with 'work as normal.' " Another NTSB report (Number P-78-44) on an accident which occurred at Cherokee, Alabama, states that the support of a cast-iron gas main broke due to the erosion of its soil support where a sewer line had been installed perpendicular to the gas main resulting in an explosion which destroyed a house and killed one occupant.

Also, when blasting is being performed that could harm pipelines in surrounding areas, it is necessary that the pipelines in such areas be leak surveyed immediately after the blasting has occurred to ensure their integrity, since the effect of blasting on pipelines is largely unpredictable. This unpredictability results from the many variables associated with blasting, such as soil condition, type of soil, size of charges used, type of charges used, skill of the personnel doing the blasting, the proximity of the blasting to the pipeline, and the delay sequence of the blasting charges.

In Coopersburg, Pennsylvania, five persons died and sixteen were injured when a weld on an 8-inch steel high-pressure gas main was cracked by blasting.

MTB recognizes that an operator, through experience in dealing with excavators in his area, should know those who are conscientious in avoiding damaging pipelines and in reporting any significant damage. Also, operators should be able to determine from the type of excavation activities being conducted at a particular site, the possibility of damage occurring to the pipeline, and the degree and type of inspection necessary to verify the integrity of the pipeline.

For the above reasons, the final rule in subparagraph (b)(6) has been modified to make MTB's intent clear. The final rule permits the operator to determine which excavation activities should be inspected and the extent of inspection necessary except, that for blasting

activities which could be harmful to nearby pipelines, leakage surveys are mandatory.

The commenters' concern over excessive cost due to performing the proposed inspections appears to stem from their belief that full-time inspection of all excavation activities would be required. This conclusion is supported by the fact that the cost estimates submitted by the commenters were based on the cost of construction inspection presently being conducted by their respective companies. This cost was projected to show the anticipated cost of full-time inspection of all excavation activities. Also, the potential benefits shown by the commenters to be derived from these expenditures were based on major damage being done to the pipeline, such as a puncture of the pipeline or a break in the pipeline. They did not consider the benefits which would be derived from preventing less immediate failures by discovering and correcting less serious damage to the pipeline as expressed in the above discussion of MTB's reasons for requiring inspection.

Since the final rule does not require full-time inspection of all excavation activities and permits the operator to use reasonable judgment in determining which excavation activities to inspect and the extent of inspection required, MTB does not believe that unreasonable additional cost will result from the final rule.

Section 192.614(c)—Program Criteria

MTB proposed that operators would not have to run their own damage prevention programs if they voluntarily or by State or local law participate in a public service program that "essentially" meets the criteria proposed under § 192.614(b) for an operator-run program. Four commenters requested clarification of the meaning of "essentially meets the requirements of paragraph (b)." They asked, are they minimum provisions which must be met or can they be met if State law encompasses many of the items enumerated? The intent of this proposal was to permit operators to provide damage prevention programs by participation in State, local, or voluntary public service programs which have the same fundamental characteristics as a damage prevention program defined in paragraph (b) of the notice. The word "essential" was included in the notice so that fundamentally sound programs might qualify though they did not provide every detail that was given in paragraph (b). In the final rule, however, the clarifying changes discussed above

regarding program criteria remove any uncertainty as to which public service programs meet these criteria so that the word "essentially" is not needed.

The final rule adopts the proposal regarding participation in public service programs by providing in paragraph (a) that an operator may perform any of the duties of a damage prevention program by participating in a qualified public service program. Where such a program only partially satisfies program criteria, as by providing a telephone answering service, the operator would have to supplement the public service program with activities of his own to assure full compliance with all criteria. Even where a public service program purports to meet all criteria, participation alone would not relieve an operator of the duty to assure that the criteria are met. In other words, an operator would be subject to penalty for the failure of a public service program in which the operator participates to correctly carry out any aspect of the program criteria that it is performing. If a function is being performed incorrectly, it is the operator's duty to correct the situation at the public service program or otherwise take the necessary steps to perform the function to assure that his compliance responsibility is met.

Section 192.814(c)—Determining Program Effectiveness

1. Fourteen commenters concurred with the proposal that the program should be monitored, but they did not believe that the number of reported incidents, by itself, is a fair measure of program effectiveness. These commenters argued that the proposal did not take into account the increase in incidents that would occur due to an increase in excavation activities, that the effectiveness of programs should be measured by something other than past experience, and that the data would be so unreliable that it could not be used for statistical analysis.

One commenter stated that a measurement based on Part 191 incident reports would be meaningless because of the small number of reports that are filed.

Seven commenters stated that operators should not be subjected to further regulatory burdens of improving programs where the fault lies with excavators' failure to respond to the operator's efforts or to take the necessary precautions to protect a facility that has been properly marked.

After reviewing the comments and consideration of use of the incident and annual reports filed under Part 191, it was determined that Part 191 reports would not be a reliable basis for

measuring program effectiveness because excavation activities may increase or decrease from one year to the next. In a year of low excavation activity, a lesser amount of pipeline would be exposed to risk, and less damage would probably occur, thus making the damage prevention program appear to be very effective. In a year of high excavation activity, the reverse could be true. Also, the number of calls requesting the location and marking of pipelines is not a reliable measure, because many of the calls could be originated by excavators whose activities take place in areas where there are few, if any, pipelines, resulting in a large number of calls but with a small amount of pipeline being placed at risk. In contrast, a small number of calls could be from excavators whose activities are in areas of a high density of pipelines, thereby placing a large amount of pipeline at risk. Another consideration was the miles of pipeline in an operator's area. But, the same problem exists with the use of miles of pipeline as does with the use of number of calls received.

MTB believes that there are insufficient reliable data available at this time to allow operators to make a reliable annual determination of the effectiveness of their damage prevention programs and to take remedial action based on that determination. For the above reason, the proposed requirement that operators determine annually the effectiveness of their damage prevention programs and take action on that determination has not been incorporated in the final rule.

MTB believes that a method for monitoring the effectiveness of a damage prevention program is necessary, and will continue its efforts to develop a reliable method of doing so. MTB would welcome assistance from interested persons in developing such a method.

Section 192.707—Line Markers

Eight commenters opposed the proposed exemption of pipelines covered by a damage prevention program from the permanent line marking requirement of § 192.707. The reason most often given was that line marking serves many other useful purposes, such as aid to firefighting units.

The purpose of the line marking requirement under § 192.707 is to alert potential excavators of the existence of underground pipelines and their general location. While there may be other benefits, they did not form a basis for the rule when adopted, and thus cannot be used to justify its retention. MTB

believes that where damage prevention programs exist, there is no need for line markers, because the damage prevention program is a more effective means of protecting underground pipelines against excavation damage. Although line markers may serve a secondary purpose of aiding other public bodies, this is not sufficient justification to impose costly duplicate requirements on the operators. For these reasons, the commenters' recommendation was not adopted for the final rule.

PART 192—TRANSPORTATION OF NATURAL AND OTHER GAS BY PIPELINE: MINIMUM FEDERAL SAFETY STANDARDS

For the reasons set out in the preamble, 49 CFR Part 192 is amended as follows:

1. A new § 192.814 is added to read as follows:

§ 192.814 Damage prevention program.

(a) Except for pipelines listed in paragraph (c) of this section, each operator of a buried pipeline shall carry out in accordance with this section a written program to prevent damage to that pipeline by excavation activities. For the purpose of this section, "excavation activities" include excavation, blasting, boring, tunneling, backfilling, the removal of above ground structures by either explosive or mechanical means, and other earth moving operations. An operator may perform any of the duties required by paragraph (b) of this section through participation in a public service program, such as a "one-call" system, but such participation does not relieve the operator of responsibility for compliance with this section.

(b) The damage prevention program required by paragraph (a) of this section must, at a minimum—

(1) include the identity, on a current basis, of persons who normally engage in excavation activities in the area in which the pipeline is located.

(2) Provide for notification of the public in the vicinity of the pipeline and actual notification of the persons identified in paragraph (b)(1) of the following as often as needed to make them aware of the damage prevention program:

(i) The program's existence and purpose; and

(ii) How to learn the location of underground pipelines before excavation activities are begun.

(3) Provide a means of receiving and recording notification of planned excavation activities.

(4) Provide for actual notification of persons who give notice of their intent to excavate of whether there are buried pipelines in the area of excavation activity and, if so, the type of temporary marking to be provided and how to identify the markings.

(5) Provide for temporary marking of buried pipelines in the area of excavation activity before, as far as practical, the activity begins.

(6) Provide as follows for inspection of pipelines that an operator has reason to believe could be damaged by excavation activities:

(i) The inspection must be done as frequently as necessary during and after the activities to verify the integrity of the pipeline; and

(ii) In the case of blasting, any inspection must include leakage surveys.

(c) A damage prevention program under this section is not required for the following pipelines:

(1) Pipelines in a Class 1 or 2 location.
(2) Pipelines in a Class 3 location defined by § 192.5(d)(2) that are marked in accordance with § 192.707.

(3) Pipelines to which access is physically controlled by the operator.

(4) Pipelines that are part of a petroleum gas system subject to § 192.11 or part of a distribution system operated by a person in connection with that person's leasing of real property or by a condominium or cooperative association.

2. Section 192.707(b)(2)(ii) is revised to read as follows:

§ 192.707 Line markers for mains and transmission lines.

• • • • •

(b) • • •

(2) • • •

(ii) Where a damage prevention program is in effect under § 192.614; or

• • • • •

3. The table of sections is amended by adding a new § 192.614 titled "Damage prevention program."

(40 U.S.C. 1672; 49 CFR 1.53, Appendix A of Part 1)

Issued in Washington, D.C., on March 25, 1982.

L. D. Santman,

Director, Materials Transportation Bureau.

[FR Doc. 82-8834 Filed 3-31-82; 8:45 am]

SELLING CODE 4910-89-M

DEPARTMENT OF TRANSPORTATION**Research and Special Programs
Administration****49 CFR Part 192****[Amdt. No. 192-41; Docket No. PS-65]****Transportation of Natural and Other
Gas by Pipeline; Incorporation by
Reference****AGENCY:** Materials Transportation
Bureau (MTB), RSPA, DOT.**ACTION:** Technical amendment.

SUMMARY: This amendment updates the existing incorporation by reference of the 1978 edition of the industry specification for thermoplastic pipe to the 1981 edition of that document. The updating provides for the use of current technology, materials, and practices.

EFFECTIVE DATE: This amendment becomes effective October 20, 1982.

FOR FURTHER INFORMATION CONTACT:
Ralph T. Simmons, 202-426-2392.

ADDRESS: Copies of the amendment may be obtained from the Dockets Branch, Room 8426, Materials Transportation Bureau, U.S. Department of Transportation, 400 Seventh Street, SW., Washington, D.C. 20590.

SUPPLEMENTARY INFORMATION: Part 192 incorporates by reference parts of the American Society for Testing and Materials (ASTM) Specification D2513

"Standard Specification for Thermoplastic Gas Pressure Pipe, Tubing, and Fittings." This document is referenced in § 192.59 as a manufacturing qualification for the use of plastic pipe, in § 192.63 as a standard for marking thermoplastic pipe, in § 192.281 as a standard for solvent cement, and in § 192.283 as burst test requirements in qualifying joining procedures for thermoplastic pipe.

The 1978 edition is the latest edition of ASTM D2513 that is referenced in Part 192, as indicated by the listings in Appendixes A and B to the part. This edition has now been superseded by the 1981 edition, which was published by ASTM in August 1981. In response to a recent petition by the City of Charlottesville, Virginia (Petition No. 82-6W), MTB has reviewed the 1981 edition and finds that it reflects the latest developments in materials and plastic pipe technology, and includes the new material, PE 3408. Accordingly, it is in the interest of operators and the public to allow the use of this latest published edition for pipelines subject to Part 192. Therefore, MTB is by this document changing the edition of ASTM D2513 listed in Appendixes A and B of Part 192 to the 1981 edition.

Because this document does not change any of the substantive requirements of Part 192, notice and public procedure are unnecessary, and in accordance with 5 U.S.C. 553, the amendment is final.

Also, since the amendment will have a positive effect on the economy of less than \$100 million a year, will result in a cost savings to consumers and industry, and no adverse effects are anticipated, this action is not "major" under E.O. 12291 or "significant" under DOT procedures.

List of Subjects in 49 CFR Part 192

Pipeline safety. Incorporation by reference.

**PART 192—TRANSPORTATION OF
NATURAL AND OTHER GAS BY
PIPELINE: MINIMUM FEDERAL
SAFETY STANDARDS**

In consideration of the foregoing, Appendixes A and B of Part 192 of Title 49 of the Code of Federal Regulations are amended as follows:

1—In Appendix A—Incorporated by Reference, under subdivision II.B, item (21) is amended by removing "(D2513-78ES)" and adding in its place "(D2513-81)".

2—In Appendix B—Qualification of Pipe, under subdivision I, the listing for ASTM D2513 is amended by removing "(1978)" and adding in its place "(1981)".

(49 U.S.C. 1672 and 1804; 49 CFR 1.53 and Appendix A to Part 1)

Issued in Washington, D.C., on September 9, 1982.

L. D. Santman,

Director, Materials Transportation Bureau.

[FR Doc. 82-25708 Filed 9-17-82; 8:45 am]

DEPARTMENT OF TRANSPORTATION**Research and Special Programs
Administration****49 CFR Parts 192 and 193**

[Amdts. 192-42 and 193-3; Docket No. PS-65]

**Transportation of Natural and Other
Gas by Pipeline Incorporation by
Reference**

AGENCY: Materials Transportation
Bureau, Research and Special Programs
Administration, DOT.

ACTION: Technical amendment.

SUMMARY: This amendment changes the address listed for the National Fire Protection Association in Appendix A to Part 192 and in Appendix A to Part 193.

DATE: This amendment becomes effective October 7, 1982.

FOR FURTHER INFORMATION CONTACT:
Ralph T. Simmons, 202-426-2392. Copies of the amendment may be obtained from the Docket Branch, Room 8426, Materials Transportation Bureau, U.S. Department of Transportation, 400 Seventh Street, SW., Washington, D.C. 20590.

SUPPLEMENTARY INFORMATION: The address of the National Fire Protection Association (NFPA) has changed from the one listed in Appendix A to Part 192 and Appendix A to Part 193. This amendment removes the incorrect address and replaces it with the correct one. Copies of materials incorporated by reference in Parts 192 and 193 that are published by NFPA may be obtained at the new address.

Because this document does not substantively change the requirements in Parts 192 and 193, notice and public procedure are unnecessary, and in accordance with 5 U.S.C. 553, the amendment is final.

Also, since the amendment will have a positive effect on the economy of less than \$100 million a year, and no adverse

effects are anticipated, this action is not "major" under Executive Order 12291 or "significant" under Department of Transportation procedures.

List of Subjects**49 CFR Part 192**

Pipeline safety.

49 CFR Part 193

Fire prevention, Pipeline safety.
Security measures, Liquified natural gas facilities.

PARTS 192 AND 193 [AMENDED]

In consideration of the foregoing, Parts 192 and 193 of Title 49 of the Code of Federal Regulations are amended as follows:

Appendix A [Amended]

1. In Part 192, under Appendix A—Incorporation by Reference, subdivision I., item F. is amended by removing the words "470 Atlantic Avenue, Boston, Massachusetts 02110" and inserting in their place "Battery March Park, Quincy, Massachusetts 02269".

Appendix A [Amended]

2. In Part 193, under Appendix A—Incorporation by Reference, subdivision I., item F. is amended by removing the words "470 Atlantic Avenue, Boston, Massachusetts 02210" and inserting in their place the words "Battery March Park, Quincy, Massachusetts 02269".

3. The authority citation for Part 192 is:

Authority: 49 U.S.C. 1672 and 1804; 49 CFR 1.53 and Appendix A of Part 1.

4. The authority citation for Part 193 is:

Authority: 49 U.S.C. 1671 et seq.; 49 CFR 1.53 and Appendix A of Part 1.

Issued in Washington, D.C., on September 30, 1982.

L. D. Santman,

Director, Materials Transportation Bureau.

[FR Doc. 82-27520 Filed 10-6-82; 8:45 am]

BILLING CODE 4910-60-M

49 CFR Parts 192 and 195

(Amends 192-43 and 195-24; Docket No. PS-73)

Transportation of Natural and Other Gas and Hazardous Liquids by Pipeline; Inspection and Test Intervals

AGENCY: Materials Transportation Bureau (MTB), DOT.

ACTION: Final rule.

SUMMARY: This amendment restates the time intervals in which periodic inspections, tests, and other activities must be conducted. Current requirements do not permit sufficient flexibility in scheduling personnel.

EFFECTIVE DATE: This amendment becomes effective November 22, 1982.

FOR FURTHER INFORMATION CONTACT: Ralph T. Simmons, 202-426-2392. Copies of the amendment may be obtained from the Dockets Branch, Room 8426, Materials Transportation Bureau, U.S. Department of Transportation, 400 Seventh Street, SW, Washington, DC 20590.

SUPPLEMENTARY INFORMATION: The Federal gas pipeline safety standards in Part 192 and the Federal hazardous liquids pipeline safety standards in Part 195 require pipeline operators to conduct various inspections, tests, and other activities at frequently recurring time intervals. For example, § 195.420 requires that each main line valve on a hazardous liquid pipeline system be inspected at intervals not exceeding 6 months to determine that it is functioning properly.

Petitioners (Interstate Natural Gas Association of America, Mountain Fuel Resources, Inc. (P-8), American Petroleum Institute (P-11), and Explorer Pipeline Company (82-IW)) have argued that such recurring time intervals do not permit sufficient flexibility in scheduling personnel. They stated that the extremes of weather and unexpected delays in scheduled work unavoidably conflict with the specified intervals, but that restating the periodic requirements on a calendar year basis, with longer intervals, would provide the flexibility needed to schedule personnel to meet the requirements without reducing public safety.

Experience shows that requirements for periodic action based on a fixed recurring interval do not allow sufficient flexibility in scheduling personnel. However, minor modifications which extend the intervals without reducing the number of inspections, tests, or other activities that must be performed each year will allow operators more

discretion in scheduling. The inspection and testing intervals specified by the corrosion control regulations in Part 192 were modified in 1978 to achieve this result (Amendment No. 192-33; 43 FR 39389).

Because this document does not substantively change the requirements in Parts 192 and 195 for pipeline facilities, good cause exists for finding that notice and public procedure are unnecessary, and in accordance with 5 U.S.C. 553, the amendment is final.

Also, since the amendment will have a positive effect on the economy of less than \$100 million a year, will result in a cost savings to consumers and industry, and no adverse effects are anticipated, this action is not "major" under Executive Order 12291 or "significant" under Department of Transportation procedures.

List of Subjects in 49 CFR Parts 192 and 195

Pipeline safety.

For the above reasons, 49 CFR Parts 192 and 195 are amended as set forth below:

1. The authority citation for Part 192 is:
Authority: 49 U.S.C. 1672; 49 U.S.C. 1804; 49 CFR 1.53 and Appendix A to Part 1.
2. The authority citation for Part 195 is:
Authority: Sec. 203, Pub. L. 96-129, 93 Stat. 1004, 49 U.S.C. 2002; 49 CFR 1.53 and Appendix A to Part 1.

PART 192—[AMENDED]

8. In § 192.227, paragraph (c)(1) is revised and the introductory text of paragraph (c)(2) is revised to read as follows:

§ 192.227 [Amended]

- (c) * * *
- (1) Within the preceding 15 calendar months, the welder has requalified, except that the welder must requalify at least once each calendar year; or
 - (2) Within the preceding 7½ calendar months, but at least twice each calendar year, the welder has had—

4. The table in § 192.705(b) is revised to read as follows:

§ 192.705 Transmission lines: Patrolling.

(b) * * *

Class location of line	Maximum interval between patrols	
	At highway and railroad crossings	At all other places
1, 2	7½ months, but at least twice each calendar year	15 months, but at least once each calendar year
3	4½ months, but at least four times each calendar year	7½ months, but at least twice each calendar year
4	4½ months, but at least four times each calendar year	4½ months, but at least four times each calendar year

5. Section 192.706(b) is revised to read as follows:

§ 192.706 Transmission lines: Leakage surveys.

(b) Leakage surveys of a transmission line must be conducted at intervals not exceeding 15 months, but at least once each calendar year. However, in the case of a transmission line which transports gas in conformity with § 192.625 without an odor or odorant, leakage surveys using leak detector equipment must be conducted—

- (1) In Class 3 locations, at intervals not exceeding 7½ months, but at least twice each calendar year; and
- (2) In Class 4 locations, at intervals not exceeding 4½ months, but at least four times each calendar year.

6. Section 192.721(b) is revised to read as follows:

§ 192.721 Distribution systems: Patrolling.

(b) Mains in place or on structures where anticipated physical movement or external loading could cause failure or leakage must be patrolled at intervals not exceeding 4½ months, but at least four times each calendar year.

7. Section 192.723(b)(1) is revised to read as follows:

§ 192.723 Distribution systems: Leakage surveys and procedures.

(b) * * *

(1) A gas detector survey must be conducted in business districts, including tests of the atmosphere in gas, electric, telephone, sewer, and water system manholes, at cracks in pavement and sidewalks, and at other locations providing an opportunity for finding gas leaks, at intervals not exceeding 15 months, but at least once each calendar year.

8. Section 192.731(c) is revised to read as follows:

§ 192.731 Compressor stations: Inspection and testing of relief devices.

(c) Each remote control shutdown device must be inspected and tested at

intervals not exceeding 15 months, but at least once each calendar year, to determine that it functions properly.

9. The introductory text of § 192.739 is revised to read as follows:

§ 192.739 Pressure limiting and regulating stations: Inspection and testing.

Each pressure limiting station, relief device (except rupture discs), and pressure regulating station and its equipment must be subjected at intervals not exceeding 15 months, but at least once each calendar year, to inspections and tests to determine that it is—

10. Section 192.743(a) is revised to read as follows:

§ 192.743 Pressure limiting and regulating stations: Testing of relief devices.

(a) If feasible, pressure relief devices (except rupture discs) must be tested in place, at intervals not exceeding 15 months, but at least once each calendar year, to determine that they have enough capacity to limit the pressure on the facilities to which they are connected to the desired maximum pressure.

11. Section 192.745 is revised to read as follows:

§ 192.745 Valve maintenance: Transmission lines.

Each transmission line valve that might be required during any emergency must be inspected and partially operated at intervals not exceeding 15 months, but at least once each calendar year.

12. Section 192.747 is revised to read as follows:

§ 192.747 Valve maintenance: Distribution systems.

Each valve, the use of which may be necessary for the safe operation of a distribution system, must be checked and serviced at intervals not exceeding 15 months, but at least once each calendar year.

13. Section 192.749(a) is revised to read as follows:

§ 192.749 Vault maintenance.

(a) Each vault housing pressure regulating and pressure limiting equipment, and having a volumetric internal content of 200 cubic feet or more, must be inspected at intervals not exceeding 15 months, but at least once each calendar year, to determine that it is in good physical condition and adequately ventilated.

PART 195—[AMENDED]

14. Section 195.402(a) is revised to read as follows:

§ 195.402 Procedural manual for operations, maintenance, and emergencies.

(a) *General.* Each operator shall prepare and follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. This manual shall be reviewed at intervals not exceeding 15 months, but at least once each calendar year, and appropriate changes made as necessary to insure that the manual is effective. This manual shall be prepared before initial operations of a pipeline system commence, and appropriate parts shall be kept at locations where operations and maintenance activities are conducted.

15. The introductory text of § 195.403(b) is revised to read as follows:

§ 195.403 Training.

(b) At intervals not exceeding 15 months, but at least once each calendar year, each operator shall:

16. Section 195.412(a) is revised to read as follows:

§ 195.412 Inspection of rights-of-way and crossings under navigable waters.

(a) Each operator shall, at intervals not exceeding 3 weeks, but at least 26 times each calendar year, inspect the surface conditions on or adjacent to each pipeline right-of-way.

17. In § 195.416, paragraphs (a) and (c) are revised to read as follows:

§ 195.416 External corrosion control.

(a) Each operator shall, at intervals not exceeding 15 months, but at least once each calendar year, conduct tests on each underground facility in its pipeline systems that is under cathodic protection to determine whether the protection is adequate.

(c) Each operator shall, at intervals not exceeding 2½ months, but at least six times each calendar year, inspect each of its cathodic protection rectifiers.

18. Section 195.418(c) is revised to read as follows:

§ 195.418 Internal corrosion control.

(c) The operator shall, at intervals not exceeding 7½ months, but at least twice each calendar year, examine coupons or other types of monitoring equipment to determine the effectiveness of the inhibitors or the extent of any corrosion.

19. Section 195.420(b) is revised to read as follows:

§ 195.420 Valve maintenance.

(b) Each operator shall, at intervals not exceeding 7½ months, but at least twice each calendar year, inspect each mainline valve to determine that it is functioning properly.

20. Section 195.428(a) is revised to read as follows:

§ 195.428 Overpressure safety devices.

(a) Except as provided in paragraph (b) of this section, each operator shall, at intervals not exceeding 15 months, but at least once each calendar year, or in the case of pipelines used to carry highly volatile liquids, at intervals not to exceed 7½ months, but at least twice each calendar year, inspect and test each pressure limiting device, relief valve, pressure regulator, or other item of pressure control equipment to determine that it is functioning properly, is in good mechanical condition, and is adequate from the standpoint of capacity and reliability of operation for the service in which it is used.

21. Section 195.432 is revised to read as follows:

§ 195.432 Breakout tanks.

Each operator shall, at intervals not exceeding 15 months, but at least once each calendar year, inspect each breakout tank (including atmospheric and pressure tanks).

Issued in Washington, D.C., on October 15, 1982.

L. D. Santmar,

Director, Materials Transportation Bureau.

[FR Doc. 82-28678 Filed 10-30-82; 8:45 am]

BILLING CODE 4910-90-M

DEPARTMENT OF TRANSPORTATION

**Research and Special Programs
Administration**

49 CFR Part 192

[Docket No. PS-54]

**Transportation of Natural and Other
Gas by Pipeline**

AGENCY: Materials Transportation
Bureau (MTB), DOT.

ACTION: Technical amendment;
correction.

SUMMARY: This document corrects a
technical amendment published in 47 FR
146 on Thursday, July 29, 1982, to amend

units of measurement contained in
safety standards on joining plastic pipe.

EFFECTIVE DATE: November 4, 1982.

FOR FURTHER INFORMATION CONTACT:
Walt Dennis, 202-426-2392.

SUPPLEMENTARY INFORMATION: In FR
Doc. 82-20446, on pages 32720, Vol. 47,
No. 146, of the July 29, 1982, issue, the
MTB published technical amendments
to units of measurements appearing in
49 CFR Parts 192 and 193. The
amendments set forth proper
conversions of units, rounded in
accordance with the rules of conversion
under the International System of Units.

An amendment to § 192.283(b)(5)
regarding joining procedures for plastic
pipe incorrectly stated the conversion of
100°F temperature change as 38°C

temperature change. The proper
conversion of 100°F change is 55.6°C,
rounded to 55°C.

List of Subjects in 49 CFR Part 192:

Pipeline safety.

§ 192.283 [Corrected]

Accordingly, § 192.283(b)(5) is
corrected by removing "38°C" and
adding in its place "55°C".

(49 U.S.C. 1672; 49 U.S.C. 1804; 49 CFR 1.53
and Appendix A of Part 1.)

Issued in Washington, DC, on October 29,
1982.

L. D. Santman,

Director, Materials Transportation Bureau.

[FR Doc. 82-30419 Filed 11-3-82; 8:45 am]

BILLING CODE 4910-60-M

**Research and Special Programs
Administration**

49 CFR Part 193

[Docket Nos. PS-54 and OPSO-46]

**Gas Pipeline Facilities; Amendment of
Safety Standards**

Correction

In FR Doc. 82-20446 appearing on page 32720 in the issue of Thursday, July 29, 1982, make the following correction.

On page 32720, third column, in the third line of item "2." "-20°C (-20°F)" should read "-29°C (-20°F)".

BILLING CODE 1695-01-01

49 CFR Parts 192 and 193

[Docket Nos; PS-54 and OPSO-46]

Gas Pipeline Facilities; Amendment of Safety Standards

AGENCY: Materials Transportation Bureau, Research and Special Programs Administration, DOT.

ACTION: Technical amendment.

SUMMARY: This document amends units of measurement contained in safety standards related to joining plastic pipe and to liquefied natural gas facilities.

EFFECTIVE DATE: July 29, 1982.

FOR FURTHER INFORMATION CONTACT: W. Dennis, 202-426-2392.

SUPPLEMENTARY INFORMATION: In § 192.283(b)(5), regarding the qualifying test for procedures to mechanically join plastic pipe, the metric conversion of 100° F is incorrectly stated as 55.6°C. The exact conversion is 37.8°C. However, there is no justification for the degree of precision implied by three significant figures in this metric conversion under the International System of Units (SI). Therefore, in accordance with the SI rules for conversion and rounding, the correct temperature should read 38°C (100°F).

Section 193.2313(b), regarding welding of liquefied natural gas facility piping, prohibits oxygen fuel gas welding on flammable fluid piping with a service temperature below -20°C (-22°F). Besides an incorrect conversion, this temperature limit is incorrectly specified. The history of § 193.2313 (42 FR 20795), including the industry standard on which the rule is based (section 6232 of the National Fire Protection Association Standard No. 59A, 1975 edition), gives the correct temperature as -20°F (-28.9°C).

However, there is no justification for the degree of precision represented by a metric conversion using three significant figures in SI units. Therefore, in accordance with the SI rules of conversion and rounding, the correct temperature should read -29°C (-20°F).

In § 193.2623, relating to LNG tank inspection, which reads in part "does not impair the structural integrity or safety or the tank", the second term "or" is a typographical error and should be the term "of".

In § 193.2629(a)(2)(ii), pertaining to external corrosion control, which reads "before October 23, 1981, or within 1 year after the component is constructed or installed, whichever is earlier", the word "earlier" should be "later".

In § 193.2917(a), regarding warning signs for liquefied natural gas facilities, the metric conversion of 100 feet is incorrectly stated as 39 meters. In accordance with the SI rules of conversion and rounding, the dimension should read 30m (100 ft.).

List of subjects**49 CFR Part 192**

Pipeline safety.

49 CFR Part 193

Fire prevention, Pipeline safety, Security measures, Liquefied natural gas facilities.

Accordingly, Parts 192 and 193 of Title 49 of the Code of Federal Regulations are amended as set forth below:

PART 192—TRANSPORTATION OF NATURAL AND OTHER GAS BY PIPELINE**§ 192.283 [Amended]**

1. Section 192.283(b)(5) is amended by removing "55.6°C" and adding in its place "38°C".

PART 193—LIQUEFIED NATURAL GAS FACILITIES; FEDERAL SAFETY STANDARDS**§ 193.2313 [Amended]**

2. Section 193.2313(b) is amended by removing "-20°C (-22°F)" and adding in its place "-20°C (-20°F)".

§ 193.2623 [Amended]

3. Section 193.2623, the lead-in text is amended by removing the words "or the tank", and adding in their place the words "of the tank".

§ 193.2629 [Amended]

4. Section 193.2629(a)(2)(ii) is amended by removing the word "earlier" located at the end of the paragraph and adding in its place the word "later".

§ 193.2917 [Amended]

5. Section 193.2917(a) is amended by removing "39m" and adding in its place "30m".

6. The authority citation for Part 192 is:

Authority: 49 U.S.C. 1672; 49 U.S.C. 1804; 49 CFR 1.53 and Appendix A of Part 1.

7. The authority citation for Part 193 is:

Authority: 49 U.S.C. 1674a; 49 CFR 1.53 and Appendix A of Part 1.

Issued in Washington, D.C., on July 20, 1982.

L. D. Santman,

Director, Materials Transportation Bureau.

[FR Doc. 82-20446 Filed 7-28-82; 8:45 am]

BILLING CODE 4910-80-M

DEPARTMENT OF TRANSPORTATION

Research and Special Programs
Administration

[Docket No. 82-2W; Notice 1]

Transportation of Natural and Other
Gas by Pipeline; Petition for Waiver

The Transcontinental Gas Pipeline Corporation (Transco) has petitioned the Materials Transportation Bureau (MTB) for a waiver from compliance with the requirements of 49 CFR 192.245 regarding repair of girth weld defects in a newly constructed addition to an existing Transco natural gas separation facility. The facility is the terminus of the Transco Central Texas Offshore System, and is located in a Class 1 area near Markham, Texas, approximately 65 miles southwest of Houston.

Three welds leaked during hydrostatic testing of the combined existing facility and the additional separation equipment after tie-in, leading to the need for repair. Transco states the following in its petition as justification for the requested waiver:

"All three welds were found to have cracks in the root weld which, under 49 CFR Part 192.245, cannot be repaired, but must be removed. Inasmuch as the welds were between fittings on a slug catcher, removal of the welds without damage to the fittings involved could not be done. Therefore, repairs to the welds were made in accordance with API 1104, Section 7, and the facilities were restored to service after successfully passing the hydrostatic test prescribed."

Background

Section 192.245, Repair or Removal of Defects, requires in paragraph (a): "Each weld that is unacceptable under § 192.241(c) must be removed or repaired. Except for welds on an offshore pipeline being installed from a pipelay vessel, a weld must be removed if it has a crack that is more than two inches long or that penetrates either the root or second bead." In contrast with this requirement, API Standard 1104, Section 7.0 permits the repair of weld cracks that are less than 8 percent of the weld length, regardless of the thru-wall location of the crack. The 15th edition of API Standard 1104 is incorporated by reference in the 49 CFR Part 192 requirements for qualification of welding procedures (§ 192.225), qualification of welders (§ 192.227), and acceptability of welds which are nondestructively tested or visually

inspected (§ 192.241(c)). Section 7.0 of API Standard 1104 is not referenced in Part 192.

Repair Welding Procedure and Testing
of Welds

In further inquiry of Transco, it was established that the repair welding procedures were developed and documented as required by Section 7.0 of API Standard 1104, including the welding procedure, which was qualified in accordance with Section 2.0 of API Standard 1104 using pipe of the same grade as the fittings that were repaired to assure sound and ductile welds after completion of repair. The repaired welds were nondestructively tested in accordance with § 192.243 using radiography, and they met the standards of acceptability of § 192.241(c). The added facilities (including tie-ins) were hydrostatically tested after repair in accordance with § 192.505 at a test pressure of over 125 percent of the maximum allowable operating pressure without failure or leakage of the repaired welds. The results of these procedures and tests demonstrated that the conditions under which the welds were repaired provided welds having mechanical properties and soundness that meet the requirements of Part 192.

Difficulty of Removing Defective Welds

The petition describes the three welds as joining header segments, where the welds could not be removed as cylindrical sections without destruction of the headers. In a separate rulemaking petition dated June 2, 1981 (Petition No. P-13), the American Petroleum Institute (API) has commented on this situation by asserting: "Compliance has proven impossible where fittings, valves, or flanges are involved, since there is no pipe to be cut out on one side of the weld." In the case of the present petition, there was no pipe to be cut out on either side of the welds, the header segments being joined to each other. Even if the headers were replaced, MTB considers that it would be very difficult, if not impossible, to achieve the joint alignment necessary due to fixed positioning of other components in the system and the dimensional tolerances that must be taken into account in the design and construction of the system. Under these circumstances, the MTB believes that it is highly unlikely that new replacement welds could be of better quality than the existing repaired welds.

Possible Changes in DOT Weld Repair
Regulation

As a result of the June 2, 1981, petition from the API and an earlier review of the weld repair regulations by the Office of Pipeline Safety Regulation (OPSR), MTB is considering amending the regulations to revise § 192.245. Proposed changes would remove the present restrictions on the repair of certain weld cracks and on the multiple repairs of other defects with the addition of procedural requirements based on API Standard 1104 to assure equivalent pipeline safety at a lower construction cost.

Data developed by the industry in support of waiver petitions submitted and granted since 1975 demonstrate that regulations on weld repair can be liberalized without adversely affecting safety provided that acceptable procedures are followed. Waivers granted by the Department of Transportation (DOT) for the Alyeska Pipeline Service Company (42 FR 25983, June 9, 1977), the Michigan Wisconsin Pipeline Company (42 FR 33406, June 30, 1977), LOOP, Inc. (46 FR 22306, April 16, 1981), and the Northern Border Pipeline Company (47 FR 20715, May 13, 1982) have all stressed the necessity of adhering to proven procedural requirements to achieve sound, ductile weld repairs, and by so doing, have assured safety as well as the savings of millions of dollars to the pipeline industry and thus to the oil and gas consumers.

Proposed Waiver Action

In consideration of the above, MTB is proposing to grant the Transcontinental Gas Pipeline Corporation the requested waiver of § 192.245.

Interested persons are invited to comment on the proposed waiver by submitting in triplicate such data, views, or arguments as they may desire. Comments should identify the docket and notice numbers and should be submitted to the Dockets Branch, Room 8426, Materials Transportation Bureau, Department of Transportation, 400 Seventh Street, S.W., Washington, D.C. 20590.

All comments received before October 12, 1982 will be considered before final action is taken. Late filed comments will be considered so far as practicable. All comments will be available for public review at the Dockets Branch of the Materials Transportation Bureau between the hours of 8:30 a.m. and 5:00 p.m. No public hearing is contemplated although one may be held at a time and place to be published as a notice in the *Federal Register* if requested by an interested person raising a substantive issue.

(49 U.S.C. 1672; 49 CFR Part 1.53(a), Appendix A of Part 1 and Appendix A of Part 196)

Issued in Washington, D.C., on September 1, 1982.

Richard L. Beam,

Associate Director for Pipeline Safety
Regulation, Materials Transportation Bureau

Research and Special Programs Administration

[Docket No. 82-2W; Notice 2]

Transportation of Natural and Other Gas by Pipeline; Grant of Waiver

The Transcontinental Gas Pipe Line Corporation (Transco) petitioned the Materials Transportation Bureau (MTB) by letter dated February 18, 1982, for a waiver from compliance with 49 CFR 192.245 with respect to the repair of three girth welds which had cracks in the root bead of the welds prior to repair. Section 192.245 requires that a weld in an onshore pipeline must be removed if it has a crack that is more than 2 inches long or that penetrates either the root or second bead.

The petitioner stated that the welds were between fittings that are segments of a slug catcher in a natural gas separation and dehydration facility. The facility is the terminus of the Transco Central Texas Offshore System, and is located in a Class 1 area near Markham, Texas, approximately 65 miles southwest of Houston. Because removal of the welds as cylindrical sections could not be done without damage to the fittings, and because replacement fittings would have taken as long as 6 months to deliver, the petitioner stated that interference with service would have resulted and therefore repairs were made to the welds.

Transco advised MTB that the three welds were repaired using procedures developed and documented in accordance with Section 7.0 of API Standard 1104, including the welding procedure which was qualified in accordance with Section 2.0 of API 1104 on pipe of the same grade as the fittings welded. The repaired welds were nondestructively tested in accordance with § 192.243 and met the standards of acceptability of § 192.241(c). The facilities were hydrostatically tested after repair as required by § 192.505 at a test pressure of over 125 percent of the maximum allowable operating pressure without failure or leakage of the repaired welds. The petitioner asserted that the results of these procedures and tests demonstrated that the conditions under which the welds were repaired provided welds having mechanical properties and soundness that meet the requirements of Part 192.

Three comments were received in response to the MTB invitation to comment in Notice 1 (47 FR 39780, September 9, 1982). Comments from the Texas Eastern Gas Pipeline Company and the Interstate Natural Gas

Association of America both were supportive of the granting of the waiver and did not state further reservations or conditions. The third commenter, UNC Naval Products, a Division of the United Nuclear Corporation, questioned "since the welds were between fittings rather than pipe sections, was a specific weld/welder qualification performed by Transco for this special joint?" The commenter added that "The lack of special recognition for welding these special types of joints could be the base cause of the weld defects," and "Based on the above, the proposed relaxation should be allowed only on special joints for which a specific qualification was successfully performed."

MTB had previously recognized the possibility that weldability of the header segments in question could vary from that of the pipe as a result of chemistry differences or differences in manufacturing process, size, or geometry, and had made inquiries of Transco to assure that this possibility was not a factor that would require a special welding/welder qualification. The MTB found that the header segments were manufactured to the same X-60 material specifications as the pipe in the system, and that other variables were within the limits of the essential variables of Section 2.0 of API Standard 1104 such that a specific welding procedure for the pipe-type fittings was not necessary. Therefore, UNC Naval Products' comment to the effect that lack of recognition of special types of joints may be the cause of the defects is not relevant, since the joints repaired were similar to other pipe joints welded within the requirements of Section 2.4.c of API Standard 1104. That section requires requalification of the welding procedure only if there is a major change in joint design. A copy of the telephone report covering this point is in the docket.

On the basis of the foregoing and the reasons cited in Notice 1, the MTB believes that the repaired welds in the Transco facility have the same level of safety as welds made under literal compliance with 49 CFR Part 192 and have been demonstrated by radiographic examination and hydrostatic testing to have the necessary soundness, strength, and ductility consistent with design and operating requirements of the facility. The MTB further believes that to require the removal of the repaired welds would burden Transco with unnecessary operating delays and needless additional costs to the operator and

consumers without enhancing the safety of the facility. Therefore, the MTB grants to Transco the requested waiver from compliance with the weld removal requirements of 49 CFR 192.245 for the repaired welds as described in Petition No. 82-2W, effective immediately.

(49 U.S.C. 1872; 49 CFR 1.53(a), Appendix A of Part 1, and Appendix A of Part 106)

Issued in Washington, D.C., on December 1, 1982.

Richard L. Beam,

Associate Director for Pipeline Safety Regulation, Materials Transportation Bureau.

[FR Doc. 82-33178 Filed 12-3-82; 8:45 am]

BILLING CODE 4910-90-M

Research and Special Programs Administration

[Docket No. 82-4W; Notice 2]

Transportation of Natural and Other Gas By Pipeline; Grant of Waiver

The Tennessee Gas Pipeline Company petitioned the Materials Transportation Bureau (MTB) for a waiver from compliance with the requirements of 49 CFR 192.553(d), to permit the maximum allowable operating pressure (MAOP) of two transmission line segments shown on drawing TO-T10-300-1-57 to be increased to 1170 psig from the current 1088 psig. These line segments are located in Wayne County, Pennsylvania, between mainline valves 322 and 323 on the Company's 300-1 transmission line.

The two line segments were hydrostatically tested to at least 1470 psig for 8 hours, without leakage after population increases caused the segments to be reclassified from Class 1 to Class 2 locations. This pressure test qualified all but the two Class 2 segments for a higher MAOP of 1170 psig. The MAOP of the Class 2 segments was not increased, however, because of § 192.553(d), which restricts a new

MAOP to the level allowed "for a new * * * pipeline constructed of the same materials in the same location." Inasmuch as additional segments of the line have since been reclassified as Class 2, and § 192.611(a) permits these to operate at 1170 psig because of their prior testing, the petitioner sought a waiver of § 192.553(d) for the original two Class 2 segments so that the entire line could be operated at 1170 psig.

In response to this petition, MTB issued a notice of a petition for waiver inviting interested persons to comment (47 FR 27443, June 24, 1982). In this notice, MTB stated that it was considering granting the requested waiver because the two Class 2 segments are not materially different with respect to design, construction, and leak and maintenance history from similar Class 2 segments in the same line section that now have an MAOP of 1170 psig, the distinguishing factor merely being the timing of the 1470 psig qualifying pressure test. Had it been performed before the two segments involved changed from Class 1 to Class 2, the segments could have been qualified for the higher 1170 MAOP without restriction by § 192.553(d).

Two comments were received in response to the invitation to comment, and both supported the granting of the waiver. The commenters indicated that, under the conditions faced by the petitioner, there would not be any reduction in public safety and a waiver is the most logical course of action.

In consideration of the foregoing, MTB, by this order, finds that compliance with § 192.553(d) is unnecessary for the reasons set forth in Notice 1, and that the requested waiver would not be inconsistent with pipeline safety. Accordingly, effective immediately, Tennessee Gas Pipeline Company is granted a waiver from compliance with § 192.553(d) regarding the two Class 2 segments described above for the purpose of uprating to 1170 psig.

(49 U.S.C. 1672; 49 CFR 1.53, Appendix A of Part 1, and Appendix A of Part 108)

Issued in Washington, D.C., on August 18, 1982.

Richard L. Beam,

Associate Director for Pipeline Safety Regulation, Materials Transportation Bureau.

[FR Doc. 82-32809 Filed 8-18-82; 9:45 am]

BILLING CODE 4910-60-01

Transportation Bureau (MTB) by letter dated March 19, 1982, for a waiver from compliance with 49 CFR 192.245 with respect to repair of girth weld defects in approximately 635 miles of its 42-inch diameter pipeline in the States of Montana, North Dakota, South Dakota, Minnesota, and Iowa constructed during 1981, and with respect to possible repair of defects in approximately 188 miles to be constructed in 1982. Weld defects to be repaired are those that have been discovered in a post-construction audit of X-ray film that had been interpreted initially by the radiographic contractors as conforming to weld acceptability standards in 49 CFR 192.241(c) which incorporate by reference the criteria in Section 6.3 of API Standard 1104. Pipe containing the nonconforming welds had, at the time of the audit, already been buried and the right-of-way restored.

Under the provisions of the waiver petition, Northern Border proposes to repair girth welds containing cracks and other nonconforming previously repaired welds that would otherwise, according to § 192.245, require removal of entire welds. Unless the referenced regulations are waived, all of the nonconforming welds (estimated to be approximately 570) would have to be removed and replaced by new welds. It is stated in the petition that removal and replacement of a weld would require excavation, cutting out of a pipe section containing the weld, rebeveling the in-place pipe ends, and placement, lining up, clamping, and welding in of a new short pipe length, requiring two new girth welds.

As a result of the petition, the MTB issued Notice 1 (47 FR 18248, April 15, 1982), requesting public comment on whether the waiver should be granted. The comments received are discussed hereafter.

Northern Border presented four reasons in the petition to support weld repair rather than replacement. These were discussed in Notice 1 and include the difficulties associated with cutting out and replacing welds; environmental impact; cost savings estimated to be \$12,500,000.00 that will benefit the U.S. consumer if the weld repair procedures are utilized; and detrimental effect to the U.S. consumer if welds are required to be replaced and service through the Northern Border pipeline is delayed.

In further support, weld repair tests have been conducted by Northern Border to qualify repair procedures that Northern Border proposes to use in actual field repair welding. These procedures are stated by Northern Border to be in full compliance with API

[Docket No. 62-374; Notice 2]

Transportation of Natural and Other Gas by Pipeline; Grant of Waiver

The Northern Border Pipeline Company petitioned the Materials

Standard 1104, with supplemental Charpy impact toughness testing and weld and heat affected zone microhardness evaluation.

Based upon an initial review of the procedures and data submitted with the petition, the Office of Pipeline Safety Regulation (OPSR) described certain inadequacies in an April 2, 1982, letter to Northern Border and requested a clarifying response. The petition Notice 1, Docket No. 82-3W, enumerated 10 areas of concern of the MTB included in the OPSR letter of April 2, particularly relating to the 5 weld repair procedures that were proposed by Northern Border. Northern Border responded by letter dated April 20, 1982, addressing each area of concern listed in Notice 1 as follows:

1. Northern Border will comply with the applicable sections of the 15th edition of API Standard 1104 as required by Part 192, and will no longer list the 14th edition in their future construction and repair procedures documentation. As stated in Notice 1, the 14th edition has never been incorporated by reference in Part 192.

2. Northern Border stated that weld procedure qualification testing would be performed to conform to Section 2.0 of API Standard 1104, as requested, and in response to an OPSR telegraphic message of April 15, 1982. In that message, the OPSR advised that the welding procedures employed as a part of any weld repair procedure must meet the qualification requirements of § 192.225 and API Standard 1104.

3. Northern Border agreed to revise the Charpy impact requirements in their procedures to 30 ft-lb minimum average (of 3 tests) and 20 ft-lb minimum of any one test at the minimum design temperature of 25 degrees F to be consistent with the original welding procedure. The requirement contained in the procedures submitted with the petition was 25 ft-lb and 15 ft-lb respectively.

4. Northern Border provided pictorial locations of Charpy impact specimens, as requested, and an narrative description of all test results.

5. Northern Border advised that Procedure "C," a procedure which would have used no preheat nor radiography to confirm crack removal for the repair of cracks from the inside of the pipe in environmentally sensitive areas, would be withdrawn. It further advised that Procedure "A" for the removal of backweld cracks by grinding only, where confirmation of crack removal was by magnetic particle inspection only, would include confirmation of crack removal by radiography as requested.

6. Northern Border provided additional clarifying details as to the environmental and construction schedule impacts if the waiver were not granted, and itemized the projected cost savings to be achieved by repairing the questionable welds rather than replacing them.

7. Northern Border provided specification sheets containing required pipe properties, as requested, although abandoning reference to "pipe properties" other than tensile strength as a criterion for repaired weld properties in its revised Spec. No. 658. The required properties of the repaired welds relate to those required for the original qualified procedure.

8. The term "multiple repairs" as used in the Northern Border petition was clarified as meaning two repairs only, or only one repair of a previously repaired area.

9. Northern Border has clarified procedures, as requested, such that they are consistent with the regulations (except for 49 CFR 192.245) and with API Standard 1104.

10. Conditions under which the repair procedures will be applied in future construction were stated by Northern Border as " * * * only in the unlikely event that a defective weld has been buried."

Test data for the repair welding procedure qualification in accordance with Section 2.0 of API Standard 1104 requested in the OPSR telegraphic message of April 15 and revised procedures (Northern Border Spec. No. 658, Rev. 1) were transmitted to the OPSR by letter dated April 28, 1982. All test results were satisfactory, although a change in welding procedure was found necessary for Northern Border Repair Procedure "D." The procedures are summarized as follows (complete copies of the corrected weld repair procedures together with the Northern Border test data for the procedure qualification testing are in the docket):

Procedure "A": Short, transverse shrinkage cracks in back-welds are proposed to be removed by grinding only, and the complete removal to be verified by magnetic particle inspection. Northern Border has asked that this procedure be a part of the waiver petition because of the possibility that the crack may extend into the root bead, which condition was in fact encountered in the qualification trials. For this reason, MTB requested in its telegraphic message of April 15 and Northern Border has agreed, to also inspect using radiography in accordance with API Standard 1104, Section 7.3, to assure that the repaired weld meets the acceptability standards of § 192.241(c).

Procedure "B": Nonthrough wall (partial penetration) cracks are to be repaired by welding either from the inside or the outside of the pipe, using low hydrogen electrodes (AWS A 5.5-69 E8018-C3). A preheat of from 250° to 350°F is required, and the procedures shall conform with Section 7.0 of API Standard 1104. Acceptability shall be determined in accordance with § 192.241(c) and Section 8.0 of API Standard 1104 by radiography.

Procedure "C": Procedure "C," originally proposed in the petition for the repair of defects from the inside of the pipe in environmentally sensitive areas, has been withdrawn by Northern Border. Repair or removal of defective welds in these areas shall comply with the requirements of Part 192 or with weld repair procedures A, B, D, or E, as appropriate.

Procedure "D": Through wall cracks are to be repaired by grinding, drilling holes at the extremities of the crack, sawing through to form a new root bead opening, and grinding to the final repair groove contour. The new root bead and hot pass are to be deposited using E8010-G electrodes, which are to be followed by successive passes using the E8018-C3 low hydrogen electrodes. This procedure will also require preheating from 250° to 350°F and must conform to Section 7.0 of API Standard 1104. Acceptability of the repaired welds shall be determined in accordance with § 192.241(c) and Section 8.0 of API Standard 1104 using radiography.

Procedure "E": Northern Border states that this procedure is to be used in multiple repair, but limits the number of repairs to two. The written procedure (Northern Border Pipeline Company Spec. No. 658, Rev. 1) states: "If the defect has not been removed and/or the multiple repair area does not meet API 1104, the weld shall be cut out as a cylinder and a replacement section installed." Other requirements of this procedure are the same as for Procedure "B," using only E8018-C3 electrodes and the same 250° to 350°F preheat.

All of the destructive tests performed as a part of qualification of the repair procedures submitted with the petition and in response to the telegraph of April 15 met the same requirements as for the original welding procedure with the exception of Charpy impact testing of a repair made in accordance with the original Procedure "D" submitted with the petition. An average of three specimens marginally failed to meet the specified minimum average impact toughness of 30 ft-lb (for full-size specimens) when tested at 25°F. Northern Border retested remaining

samples from the repair weld, and the retest results marginally met the requirement. Further impact testing of the revised weld repair procedure "D" in response to the telegraph of April 15 as reported on April 28 resulted in considerably higher toughness values, both for the original weld and for the repaired weld. The weld tested for the revised Procedure "D" was a weld made for the test rather than a field weld containing a crack as in the test results submitted with the petition. Charpy impact toughness was apparently increased as a result of the repair procedure modification (adding an E8010 hot pass). On this basis, MTB believes that favorable action on the petition is appropriate but should be conditional, as stated later in this notice.

After review and consideration of all of data submitted by Northern Border, MTB finds that a conditional waiver from the provisions of § 192.245 for the welds in question is appropriate and consistent with pipeline safety for the following reasons:

1. Experience gained in the granting of previous weld repair waivers supports the conclusion that it is feasible to make an acceptable repair to a crack in a weld or to make acceptable multiple repairs on a weld if qualified repair procedures are used to assure the integrity of the weld.

2. Adequate repair procedures have been developed and documented by the Northern Border Pipeline Company which will produce sound, ductile welds when the repairs are completed.

3. Comprehensive tests including destructive tests meeting § 192.225 have been performed to duplicate the actual repair conditions. The results of these tests demonstrate that the conditions under which the welds are repaired will provide welds having mechanical properties at least equal to the specified minimum mechanical properties required by the original welding procedure.

4. Field nondestructive testing of the repaired weld meeting the appropriate requirements of § 192.243 will confirm that the completed repair meets the acceptability requirements of § 192.241(c).

5. The Federal Inspector will monitor the repairs and enforce strict adherence to the documented procedures so as to assure sound, ductile weld repairs.

6. Removal of each weld containing the defect by cutout and replacing with a short section of pipe requiring two new girth welds to be made under difficult field conditions would not improve the quality of the weld integrity on the pipeline.

7. The cost of repairing the individual weld defects will be substantially less than the construction cost of replacing entire welds and that the savings will accrue to the consumer.

8. Delays in initiating service and environmental disruptions that would otherwise occur will be avoided.

9. Public safety will be best served by verification that all injurious weld defects have been identified and have been satisfactorily repaired in accordance with the terms and conditions of any waiver issued.

Three comments were received in response to the invitation to comment in Notice 1. Comments from the American Petroleum Institute and the Northern Natural Gas Company both were supportive of the granting of the waiver and did not state further reservations or conditions. The comment from the Iowa State Commerce Commission was supportive of granting the waiver, but stated:

A waiver of § 192.245 to the extent necessary to permit repair by grinding instead of replacement and to eliminate the inapplicable preheating requirement appears appropriate. However, the repaired area should be subjected to radiographic inspection to determine final acceptability and Northern Border should be required to modify its proposed Appendix A procedure to include this.

In response to a request by MTB, Northern Border has agreed to confirm removal of the weld defect in Procedure "A" by radiographic inspection, and this is part of the waiver. The Iowa Commission also expressed concern about Appendix C internal weld crack repair for environmentally sensitive areas. Following the concern expressed by MTB as noted earlier, Northern Border has withdrawn Appendix C procedures.

The Iowa Commission also discussed some of its problems about Appendix D Weld crack repair procedure for complete pipe wall penetration. However, apparently information it obtained in personal communications between its staff and Northern Border has alleviated those concerns. In addition, the waiver conditions MTB is imposing upon Appendix D procedures should further answer the Iowa Commission's questions about that procedure.

Northern Border's petition requested that relief be granted on an expedited basis pursuant to Section 9 of the Alaska Natural Gas Transportation Act (ANGTA) (15 U.S.C. 719g). As MTB discussed in Notice 1, it would expedite its actions under the Natural Gas Pipeline Safety Act (NGPSA) by shortening the normal 30-day period for

public comment to 15 days in view of the need for expeditious construction and initial operation of the pipeline. MTB's actions are consistent with assurances to the public that the pipeline welds containing defects will meet the acceptability standards of Part 192 when repair is completed.

In accordance with Section 102(c) of Reorganization Plan No. 1 of 1979, 44 FR 33663 (June 12, 1979), and Executive Order 12142, 44 FR 36927 (June 25, 1979), the terms and conditions for any waiver granted would be enforced by the Federal Inspector. This is true also for enforcement of all of 49 CFR Part 192 on pipelines subject to ANGTA. Accordingly, on April 28, 1982, the MTB Director wrote Federal Inspector John T. Rhett, requesting a description of how the Federal Inspector's "field organization will enforce the terms and conditions of any waiver granted in this matter. This description should include the number of personnel involved with enforcement, the duties and responsibilities of these personnel, and a description of documentation which will be used to assure compliance." The Federal Inspector responded by a letter of April 30, 1982, to the MTB providing details of the enforcement procedures to be used to assure compliance with the terms and conditions of the waiver and the monitoring for compliance with Part 192 regulations. Copies of these letters are in the Docket.

Accordingly, effective immediately, the Northern Border Pipeline Company is hereby granted a waiver from compliance with 49 CFR 192.245 for the remedial weld program and the 1982 period of construction of the Northern Border pipeline subject to the following conditions.

1. Because of the wide difference in impact test results obtained in the first and second series of weld procedure qualification tests performed by Northern Border for Procedure "D," and because the effectiveness of the revised procedure (addition of a hot pass using the E8010-G electrode) has not been demonstrated in prior actual repair of cracks in X-70 grade pipe welds, MTB believes that additional precautionary nondestructive testing is necessary to assure that other unforeseen weld ductility problems will not occur when using this procedure. For this reason, additional verification through delayed radiography is made a condition of this waiver. In order to demonstrate the reliability of the procedure, each of the first 10 welds to be repaired by Procedure "D" shall be radiographically inspected in accordance with API Standard 1104 at least 24 hours after the

repair has been completed in addition to the radiographic examination specified by Northern Border in Spec. No. 658, Rev. 1. If no cracking is detected by the second radiographic examination of the first 10 repair welds utilizing Procedure "D," no further delayed radiography is required. If, however, any cracking is revealed in the delayed radiography of the first 10 repair welds, all repairs made thereafter using Procedure "D" must be nondestructively tested by delayed radiography to be performed at least 24 hours after the repair has been completed.

2. Because of the possible wide variation in electrode properties and the limited number of destructive tests which have been performed, the electrodes used in any repair welding procedure under this waiver shall be identical as far as is possible as to type, chemical composition, and mechanical properties requirements as the electrodes used in qualifying the repair welding procedure.

3. Northern Border has indicated in its April 20 letter that the repair procedures under this waiver would be used on 1982 construction only if a weld containing an unacceptable defect had been buried. Before any weld is repaired by one of the procedures herein, on a weld made during 1982 construction season, the Office of the Federal Inspector (OFI) must first be notified.

Copies of the Northern Border Pipeline Company Weld Repair Procedures "A," "B," "D," and "E" are contained in the docket file and have been provided to the OFI for surveillance and enforcement action.

(49 U.S.C. 1672; 49 CFR 1.53, Appendix A of Part 1)

Issued in Washington, D.C., on May 5, 1982.

L. D. Santman,

Director, Materials Transportation Bureau.

(PR Doc. 82-12865 Filed 5-13-82; 8:45 am)

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[Docket No. 82-3W; Notice 1]

Transportation of Natural and Other Gas by Pipeline; Petition for Waiver

The Northern Border Pipeline Company has petitioned the Materials Transportation Bureau (MTB) for a waiver from compliance with the requirements of 49 CFR 192.245 regarding repair of girth weld defects in approximately 635 miles of its 42-inch diameter pipeline in the States of Montana, North Dakota, South Dakota, Minnesota, and Iowa constructed during 1981 and repair of possible future defects in approximately 188 miles remaining to be constructed during 1982. Repair would be by one or more of five qualified weld repair procedures.

The pipeline is known as the "Eastern Leg" of the Alaska Natural Gas Transportation System (ANGTS) as a

part of the Alcan Project. The Northern Border pipeline will receive Alaskan gas at the Saskatchewan-Montana border from the Canadian-owned portion of the ANGTS and transport such gas 1,131 miles along a route diagonally through the above States, terminating at a point near Dwight, Illinois. Northern Border is presently engaged in constructing what is referred to as the "Prebuild Project." When completed in 1982, the prebuild portion of the Northern Border system will transport natural gas in interstate commerce from Port of Morgan, Montana, to Ventura, Iowa, a distance of 823 miles.

The petition of Northern Border dated March 19, 1982, requests that relief be granted on an expedited basis pursuant to section 9 of the Alaska Natural Gas Transportation Act (ANGTA) (15 U.S.C. 719g). The MTB seeks to expedite action on this matter consistent with

assurances to the public that the pipeline welds containing defects will be safe when repair is completed. In accordance with section 102(c) of Reorganization Plan No. 1 of 1979, 44 FR 33663 (June 12, 1979), and Executive Order 12142, 44 FR 36927 (June 25, 1979), the terms and conditions for any waiver which might be granted would be enforced by the Federal Inspector. This is true also for enforcement of all of 49 CFR Part 192 on pipelines subject to ANGTA.

Background

In a recent audit of weld radiographs, Northern Border detected a number of welds which contain cracks or other welding defects that do not meet the weld acceptability standards of section 6 of American Petroleum Institute (API) Standard 1104 incorporated by reference in § 192.241(c). The radiographic weld

films had been interpreted initially by the radiographic contractors as conforming to API Standard 1104. Northern Border reexamined these records to ascertain compliance with that Standard. A list of the "nonconforming welds," identifying them by weld number and belt location, is attached to the waiver petition.

The total number of weld defects and other radiographic discrepancies on the list is 842. A number of these discrepancies involve radiographic film record inadequacies rather than an identified defect in the weld. MTB estimates there are approximately 570 existing weld defects to be repaired if the waiver is granted.

Pipe containing the suspected nonconforming welds which are the subject of the petition already has been lowered into the pipeline ditch, backfilled, and the right-of-way has been restored.

The Federal gas pipeline safety standard for repair or removal of weld defects in onshore pipelines (49 CFR 192.245) prohibits multiple repair of any defects or repair of a crack that is longer than 2 inches or that penetrates either the root or second bead of the weld. In contrast, API Standard 1104, Section 7, permits the repair of weld cracks that are less than 8 percent of the weld length (10.56 inches in a 42-inch diameter pipe) as well as multiple repair of defects.

The 15th edition of this Standard is incorporated by reference in 49 CFR Part 192 requirements for qualification of welding procedures (§ 192.225), qualification of welders (§ 192.227), and acceptability of a weld which is nondestructively tested or visually inspected (§ 192.241(c)). Section 7 of API Standard 1104 is not referenced in Part 192.

Northern Border's petition requests a waiver of the § 192.245 prohibitions to permit use of one or more of five repair procedures which Northern Border states have been qualified in accordance with API Standard 1104.

Under the provisions of the waiver request, the petitioner would repair certain girth weld defects that would otherwise, according to 49 CFR 192.245, require removal of entire welds. Because the part of the pipeline constructed during 1981 is already buried, removal and replacement of a weld would require excavation, cutting out of a pipe section including the weld, and insertion and welding in of a new short pipe section which would require two new girth welds.

Northern Border presented four reasons in the petition to support weld repair rather than replacement.

1. *Difficulties associated with cutting out and replacing welds.* The petition states, "Weld replacement could require an excavation of up to 350 feet long in order to achieve the flexibility in the pipe to make the ends meet. A weld repair requires only an excavation of about 20 feet long. Thus a much smaller area of land would be disturbed under the weld repair procedure * * * The repair of a weld requires a crew of 41 and 11 pieces of equipment. In contrast, weld replacement requires a crew of 54 and 25 pieces of equipment * * * A third factor in favor of the weld repair procedure is the differing length of time involved. The weld repair procedure involves substantially less time to complete than does replacement of a weld."

2. *Environmental impact.* Northern Border also stated, "It has been determined that almost 20 percent of the nonconforming welds are located in or near designated environmentally sensitive areas."

3. *Cost savings.* The petitioner also asserts that there will be a cost savings of \$12,500,000.00 that will benefit the U.S. consumer if the weld repair procedures are utilized rather than replacing the welds.

4. *Detrimental effect to the U.S. consumer.* The effect of delay that would result if welds are required to be replaced is illustrated by the petitioner in considering the terms of the export license issued by the Canadian government, commencing November 1, 1981, and extending through October 31, 1987. During the initial years of operation and prior to introduction of natural gas from the Prudhoe Bay area of Alaska, the pipeline will transmit Canadian natural gas which has been licensed for export by the Canadian government to U.S. markets. While the export license provides for a contingent makeup of the volumes not taken during the year November 1, 1981, through October 31, 1982, there is no provision for makeup of volumes not taken after the beginning of the second year of the license. Thus, if service through the Northern Border pipeline is delayed beyond the start of the second contract year, all volumes not taken thereafter cannot under the terms of the export license be made up and are, therefore, lost to the consumer.

Weld repair qualification trials were conducted by Northern Border for five separate procedures utilizing API Standard 1104, including destructive testing. The petition states that "The girth welds which were used to qualify the Repair Procedures were actual field production welds made during 1981

construction of the Northern Border pipeline."

The procedures Northern Border developed and tested for qualification as weld repairs are titled in the petition:

- A. Procedure for Elimination of Transverse Cracks (Grinding Only)
- B. Weld Crack Repair Procedure, Partial Penetration (Internal/External)
- C. Weld Crack Repair Procedure for Environmentally Sensitive Areas
- D. Weld Crack Repair Procedure Complete Wall Penetration
- E. Multiple Weld Repair Procedure

Northern Border has instituted a testing program to validate and qualify the repair procedures consisting of the following as stated in the petition:

Preparation of test specimens of repaired girth welds, using cut out rings which were radiographically identified as containing cracks in the stringer bead similar to those which are the subject of the waiver petition * * * Repair of the test specimens took place between March 8, 1982, and March 18, 1982. Evaluation of the repair procedure and metallurgical analysis of the repaired welds were performed by Dr. Brian Jones of the InterNorth, Inc. Research Center in Omaha, Nebraska. Tensile tests, micro-hardness surveys, and Charpy V-notch impact tests were performed on the weld specimens. These tests were designed to provide appropriate comparisons between the corresponding properties of the repair weld metal with those of the field weld metal and the base metal of the pipe.

A copy of Dr. Jones' full report is attached to the petition and is in the Docket. Northern Border concludes that these tests and reports fully establish that repairing cracks in welds in accordance with the repair procedures they propose produces sound welds and assures a safe pipeline over its projected service life.

Possible Changes in DOT Weld Repair Regulation

As a result of a petition dated June 2, 1981, from the API requesting changes in weld repair regulations and an earlier ongoing review of weld repair regulations by the Office of Pipeline Safety Regulation (OPSR), MTB has been considering amending the gas pipeline safety regulations contained in § 192.245. Proposed changes would remove the present restrictions on the repair of certain weld cracks and on the multiple repairs of other weld defects with addition of procedural requirements based upon API Standard 1104 to assure equivalent pipeline safety at a lower construction cost.

Data developed by the industry in support of waiver petitions submitted from 1975 to 1981 show that weld repairs can be made safely. Waivers granted by

the Department of Transportation (DOT) for the Alyeska Pipeline Service Company (42 FR 25983, June 9, 1977), the Michigan Wisconsin Pipeline Company (42 FR 33408, June 30, 1977), and LOOP Inc. (46 FR 22346, April 16, 1981) have all stressed the necessity of adhering to proven procedural requirements to achieve sound, ductile weld repairs, and by so doing, have assured safety as well as the savings of millions of dollars to the industry and thus to the consumer.

Regulatory Concerns

MTB has advised Northern Border about several areas of concern in the petition, particularly as related to qualifying the five weld repair procedures, and has requested additional supporting information in the following matters:

1. Northern Border references in its petition the 14th edition of API Standard 1104 (which has never been incorporated in Part 192) instead of the 15th edition. An amendment to Part 192 was published in January of 1981 which updated the editions of standards and specifications that are incorporated by reference, including API Standard 1104. The 15th edition (1980) was incorporated at that time, and is still applicable. Prior to that amendment, the 13th edition of API Standard 1104 was referenced. The 13th and 14th editions of API Standard 1104 contained provisions for radiographic determination of the depth of root bead undercutting by the use of a comparator shim. Since use of the shim was proven inaccurate, the DOT regulations prohibited its use in §§ 192.227, 192.229, and § 192.241. The 15th edition of API Standard 1104 no longer contains the provision for radiographic determination of the depth of root bead undercutting, and since the 15th edition is referenced by Part 192, the exceptions have been removed. Facts are needed to demonstrate why this deviation from the requirements of Part 192 has had no effect on the construction of the Northern Border pipeline to date and, therefore, would result in a satisfactory weld repair. If the 15th edition is not used for both future construction and the repair procedures, convincing reasons must be provided for an additional waiver to Part 192.

2. The petition states that repair procedures were developed and qualified in accordance with API Standard 1104. In the accompanying report, bend tests and nick-break tests as required by section 2.0 of API Standard 1104 were not shown to have been performed. MTB questions how Northern Border plans to demonstrate the requirement of both Part 192 API

Standard 1104 for "ductile" welds in lieu of such testing. Additional supporting facts are needed to assure that the repair welds will meet the same requirements for ductility and soundness as for the original welding procedure, and the repair procedure qualification tests should provide proof of meeting these requirements.

3. Northern Border has established impact toughness requirements, and attainment of fracture toughness in the repair welds that is at least equal to that required for the original welding procedure must be shown before any possible granting of the weld repair waiver. For this reason, Northern Border must specify requirements for Charpy impact energy for the original welding procedure and show, by comparative test results on the repair welds made during qualification of the procedure, that the repair welds will meet the same requirements for impact energy.

4. It is important in consideration of the waiver that information necessary when interpreting destructive test data, such as for Charpy impact energy, be specified. The OPSR is concerned that this type of data could be misinterpreted if the details of the testing (such as position of the "V" notch relative to the weld) are not known and if evaluation of all results is not considered, including percent shear and lateral expansion. Northern Border's response should include a clarification as to the location of the impact specimens and a narrative comparison of all of the test results with those results of the original welding procedure qualification tests.

5. Repair procedures proposed in the petition include a procedure for the grinding out of back weld transverse cracks and a procedure for weld crack repair in environmentally sensitive areas. Neither of these procedures can be considered to conform to API Standard 1104 because the first is not a repair by welding, and the second does not consider requirements for either preheat or radiography of the completed repair. Thus, the waiver being requested goes beyond permitting the repair of weld defects in accordance with API Standard 1104, and neither the requirements of § 192.245(b) with regard to preheat nor the requirements of section 7.0 of API Standard 1104 (although incorporated only by the petition) with regard to radiography would be met by the procedures. Complete justification for not meeting those requirements must be provided and supported by Northern Border. If the two procedures are to be pursued as part of the proposed waiver, Northern Border must address whatever

additional provisions of Part 192 are requested to be waived (e.g., § 192.461(a) because of damage to external coating properties by repair welding heat), and what potential problems will be encountered if they are not waived.

6. OPSR also has requested additional clear, factual support as to the need for the waiver especially with regard to: the projected effect on the construction schedule if waiver is not granted; details of cost impacts; and impact on the environment if the waiver is denied.

7. The pipe specification provided and referenced in the procedures indicated no minimum property values or requirements although Northern Border states that "Results must equal or exceed pipe material specification."

8. It is not certain from reading the procedures whether multiple repair means double repair only, or whether subsequent multiple repairs are contemplated. Nor is it clear whether multiple repair is intended to apply to Appendices "B" through "D" of the Northern Border Specification No. 658, or whether it is applicable only in situations other than described by these appendices. In any case, to justify grant of the waiver, each weld procedure for multiple repair must be qualified by destructive testing and documented for that number of repairs. Each appendix now precludes multiple repair by stating that if the repair described therein is not successful, the "weld shall be cut out as cylinder and a replacement section installed." Implications of this statement in each procedure must be clarified with regard to later multiple repair.

9. Northern Border's procedures must be made consistent with Part 192 welding requirements, API Standard 1104, as applicable, and with each other (including consistency of the details of the narrative of the procedures with the accompanying weld sketches).

10. Conditions under which proposed repair procedures would be used for new construction to repair weld defects must be stated and supporting justification provided by Northern Border.

Contemplated Waiver Action

Subject to a complete response from Northern Border on the supporting data requested, MTB is contemplating granting the Northern Border petition for the following reasons:

1. Experience gained in the granting of previous weld repair waivers supports the belief that it is feasible to make an acceptable repair to a crack in a weld or to make acceptable multiple repairs on a

weld if qualified repair procedures are used to assure the integrity of the weld.

2. Adequate repair procedures will be developed and documented by the Northern Border Pipeline Company which will produce sound, ductile welds when the repairs are completed.

3. Comprehensive tests will have been performed to duplicate the actual repair conditions. The results of these tests will demonstrate that the conditions under which the welds are repaired will provide welds having mechanical properties at least equal to the specified minimum mechanical properties required by the original welding procedure.

4. Field nondestructive testing of the repaired weld will confirm that the completed repair meets the acceptability requirements of § 192.241(c).

5. The Federal Inspector will monitor the repairs and enforce strict adherence to the documented procedures so as to assure sound, ductile weld repairs.

6. Removal of each weld containing the defect by cutout and replacing with a short section of pipe requiring two new girth welds to be made under difficult field conditions would not improve the quality of the weld integrity on the pipeline.

7. The cost of repairing the individual weld defects will be substantially less than the construction cost of replacing entire welds and that the savings will accrue to the consumer.

8. Delays in initiating service and environmental disruptions that may otherwise occur will be avoided.

9. Public safety will be best served by verification that all injurious weld defects have been identified and have been satisfactorily repaired in accordance with the terms and conditions of any waiver issued.

MTB actions under the National Gas Pipeline Safety Act (NGPSA) in regard to the waiver request will be expedited as required by Section 9 of the ANGTA (15 U.S.C. 719g). Actions are constrained, however, by provisions of the NGPSA and the Administrative Procedure Act which require that interested persons be given an opportunity to participate fully in the waiver proceeding. While the 10-day public comment period requested by Northern Border appears to be insufficient to provide this opportunity, MTB is mindful of the need for expeditious construction and initial operation of the pipeline and, therefore, shortened the normal 30-day period for public comment to 15 days. MTB anticipates receiving Northern Border's complete response of supporting data promptly. MTB will expedite action on the waiver petition requested, consistent with assurances to MTB and the public that the completed pipeline will be safe.

Interested persons are invited to comment on the proposed waiver by submitting in triplicate such data, views, or arguments as they may desire. Comments should identify the docket and notice numbers and be submitted to the Dockets Branch, Room 8428, Materials Transportation Bureau, Department of Transportation, 400 Seventh Street, SW., Washington, D.C. 20590.

All Comments received by April 30, 1982, will be considered before final action is taken. Late filed comments will be considered so far as practicable. All comments will be available for public review at the Dockets Branch of Materials Transportation Bureau between the hours of 8:30 a.m. and 5:00 p.m. No public hearing is contemplated although one may be held at a time and place to be published as a Notice in the

Federal Register if requested by an interested person raising a substantive issue.

(49 U.S.C. 1672; 49 CFR Part 1.53(a), Appendix A of Part 1 and Appendix A of Part 166)

Issued in Washington, D.C., on April 10, 1982.

Melvin A. Judah,

Acting Associated Director for Pipeline Safety Regulation Materials Transportation Bureau.

[FR Doc. 82-10414 Filed 4-14-82; 2:45 am]

BILLING CODE 4910-80-M

49 CFR Part 195

[Amdt. 195-22; Docket PS-70]

Transportation of Hazardous Liquids by Pipeline; Correction**AGENCY:** Materials Transportation Bureau (MTB), DOT.**ACTION:** Final rule; technical correction.

SUMMARY: This document corrects typographical and other errors within the safety regulations for hazardous liquid pipelines.

FOR FURTHER INFORMATION CONTACT: Frank Robinson, 202-426-2392.

SUPPLEMENTARY INFORMATION: Part 195, "Transportation of Hazardous Liquids by Pipeline," was reissued by a document published on July 27, 1981 (48 FR 38357), to conform with the Hazardous Liquid Pipeline Safety Act of 1979 (HLPESA) (49 U.S.C. 2001 et seq.) and incorporate a number of HLPESA provisions into Part 195. Errors in 14 sections of the text were published in that document. These were:

1. Section 195.2 in the definition of "Hazardous liquid" incorrectly uses the conjunction "and", making it unclear that petroleum, petroleum products, or anhydrous ammonia either singly or in combination constitute a "Hazardous liquid." The correct conjunction is "or."

2. Section 195.3(b)(1) incorrectly spells the street address as "North Avery." The correct street address is "North Ervay."

3. Section 195.106(e) erroneously cites a pipe specification as "APL 5L." The correct citation is "API 5L."

4. Section 195.114(b) erroneously refers to paragraph (a)(3). The correct reference is paragraph (b)(3).

5. Section 195.118(a) omits a comma between the words "marking" and "end" and between the words "preparation" and "and", making it unclear that marking and end preparation are distinct tasks.

6. Section 195.214(a) erroneously refers to §§ 195.218 through 195.234. The correct reference is §§ 195.216 through 195.234.

7. Section 195.248(a) transposes the words "is" and "it" in the phrase "so that it is buried below the level of cultivation." The phrase should read "so that it is buried below the level of cultivation."

8. Section 195.260(a) incorrectly spells the word "permits" as "perimts."

9. Section 195.402(e)(1) incorrectly spells the word "communicating" as "communciating."

10. Section 195.402(e)(2) omits a comma between the words "facility" and "accidental", making it unclear that

there are two types of emergencies stated.

11. Section 195.403(a)(2) incorrectly spells the word "odorless" as "orderless."

12. Section 195.406(a)(5) incorrectly refers to "lost pressure" rather than "test pressure."

13. Section 195.420 incorrectly spells the word "valve" as "value" in both the title of the section and in the text of paragraph (a).

14. Section 195.426 incorrectly spells the word "of" as "or" in the first sentence in the term "removal of scrapers".

In view of the foregoing, FR Doc 81-21782, appearing on page 38356 in the issue of July 27, 1981, is corrected as follows:

1. On page 38361, § 195.2, the definition of "Hazardous liquid" is corrected by removing "and" and inserting in lieu thereof "or".

2. On page 38362, § 195.3(b)(1) is corrected by removing "Avery" and inserting in lieu thereof "Ervay".

3. On page 38364, the table in § 195.106(e) is corrected by removing "APL 5L" and inserting in lieu thereof "API 5L".

4. On page 38365, the last sentence of § 195.114(b) is corrected by removing "(a)(3)" and inserting in lieu thereof "(b)(3)".

5. On page 38365, § 195.118(a) is corrected by removing "end preparation" and inserting in lieu thereof ", end preparation,".

6. On page 38366, § 195.214(a) is corrected by removing "195.218" and inserting in lieu thereof "195.216".

7. On page 38367, the first sentence of § 195.248(a) is corrected by removing "is it" and inserting in lieu thereof "it is".

8. On page 38368, § 195.260(a) is corrected by removing "perimts" and inserting in lieu thereof "permits".

9. On page 38369, § 195.402(e)(1) is corrected by removing "communciating" and inserting in lieu thereof "communicating".

10. On page 38369, § 195.402(e)(2) is corrected by removing "facility" and inserting in lieu thereof "facility,".

11. On page 38370, § 195.403(a)(2) is corrected by removing "orderless" and inserting in lieu thereof "odorless".

12. On page 38371, § 195.406(a)(5) is corrected by removing "lost" and inserting in lieu thereof "test".

13. On page 38372, § 195.420, the section heading is corrected by removing "Value" and inserting in lieu thereof "Valve", and paragraph (a) is corrected by removing "value" and inserting in lieu thereof "valve".

14. On page 38372, the first sentence of § 195.426 is corrected by removing "or

scrapers" and inserting in lieu thereof "of scrapers".

(49 U.S.C. 2002, 49 CFR 1.53 and Appendix A to Part 1)

Issued in Washington, D.C., on July 20, 1982.

L. D. Santman,

Director, Materials Transportation Bureau.

[FR Doc. 82-20418 Filed 7-28-82; 8:45 am]

BILLING CODE 4910-60-M

DEPARTMENT OF TRANSPORTATION

Research and Special Programs
Administration

49 CFR Part 195

[Amdt. No. 195-25, Docket No. PS-75]

Transportation of Hazardous Liquids
by Pipeline Weld Filler Metal

AGENCY: Materials Transportation
Bureau (MTB), RSPA, DOT.

ACTION: Final rule.

SUMMARY: Section 195.220 requires that weld filler metal be as strong as the strongest piece of metal being welded. This requirement is ambiguous and redundant and is, therefore, deleted with no effect on pipeline safety.

EFFECTIVE DATE: January 10, 1983.

FOR FURTHER INFORMATION CONTACT:
F. S. Robinson, 202-426-2392.

ADDRESS: Copies of this final rule may be obtained from the Dockets Branch, Room 8428, Materials Transportation Bureau, U.S. Department of Transportation, 400 Seventh Street, SW, Washington, D.C. 20590.

SUPPLEMENTARY INFORMATION: As part of its program to review existing regulations and eliminate those that are unnecessary for safety, MTB has reviewed § 195.220. Section 195.220 requires that "Filler metal must be at least equal in strength to the highest specified minimum yield strength of the pieces being welded and must fuse the pieces together." The review shows that this rule is ambiguous and redundant.

The rule is ambiguous because the term "filler metal," or the fusible material used in welding, may refer either to the material as it exists before welding (i.e., the welding rod) or the material after welding (i.e., the completed weld). The regulatory record (Docket No. HM-6) does not clarify the intended meaning. However, welding procedure qualification tests in common usage when § 195.220 was adopted included tests for weld tensile strength rather than for strength of the filler metal before welding. For this reason, MTB believes that the intent of the rule is to assure adequate tensile strength of completed welds.

Based on the assumption that § 195.220 regulates filler metal before usage, the American Petroleum Institute (API) petitioned the MTB (Docket P-19) on May 25, 1982, to delete the filler metal requirement. API argued that the requirement is unnecessary because under § 195.214(b), welding must be in accordance with a written procedure

that has been tested to produce sound, ductile welds, and this procedure would have to specify the type of filler metal to be used. The essence of API's argument—that no additional safety in regard to filler metal is provided by § 195.220—was also the basis for not including a similar rule in Part 192 for gas pipelines. A requirement similar to § 195.220 was proposed for gas pipelines (Notice 70-1, 35 FR 112, January 28, 1970), but was rejected in the final rule document (35 FR 13248, August 19, 1970). The reason stated was "Since each welding procedure contains detailed requirements for filler metal, it is not necessary to have a separate requirement in these regulations."

If, as MTB believes, § 195.220 regulates the proper strength of completed welds, this objective also is satisfied by compliance with § 195.214(b). To meet the performance criteria of this standard, it is common practice (namely, Section 2 of API Specification 1104, "Standard for Welding Pipelines and Related Facilities") to conduct tensile tests to assure that welding procedures will produce completed welds at least as strong as the design strength of the material being welded. Also, Part 195 prescribes other standards pertaining to welding (e.g., § 195.222) and pressure testing (Subpart E) that assure the strength of completed welds.

Therefore, because § 195.214(b) requires a written welding procedure incorporating the type of filler metal to be used and because the strength of completed welds is sufficiently regulated by § 195.214(b) and other applicable Part 195 requirements, MTB finds that § 195.220 is unnecessary for the safety of hazardous liquid pipelines.

Because a requirement similar to that of § 195.220 has been considered for gas pipelines and rejected with notice and public procedure, and the § 195.220 requirement is redundant with other Part 195 standards, good cause exists for finding that a notice of proposed rulemaking is unnecessary. Therefore, a final rule on this matter may be issued under 5 U.S.C. 553.

Since this final rule will have a positive effect on the economy of less than \$100 million a year, will result in a cost savings to consumers, industry, and government agencies, and no adverse effects are anticipated, the action is not "major" under Executive Order 12291 or "significant" under Department of Transportation procedures. Further, the available information indicates that the

impact of this action is so slight that a Regulatory Evaluation to assess costs and benefits is unwarranted.

List of Subjects in 49 CFR Part 195

Pipeline safety.

PART 195—(AMENDED)

§ 195.220 [Removed]

In view of the above, Part 195 is amended by removing § 195.220.

(49 U.S.C. 2002; 49 CFR 1.83, Appendix A to Part 1)

Issued in Washington, D.C., on December 2, 1982.

L. D. Santman,

Director, Materials Transportation Bureau.

(FR Doc. 82-33382 Filed 12-9-82; 8:45 am)

BILLING CODE 4910-06-M

DEPARTMENT OF TRANSPORTATION**Research and Special Programs
Administration****49 CFR Part 195**

(Docket PS-72; Notice 1)

**Transportation of Hazardous Liquids
by Pipeline Retention of Radiographic
Film****AGENCY:** Materials Transportation
Bureau (MTB), DOT.**ACTION:** Notice of Proposed Rulemaking.

SUMMARY: This notice proposes to delete the requirement in § 195.234(g) to retain radiographic film for 3 years after a pipeline is placed in service and to map the location of the radiographed welds. The existing rule does not appear to enhance safety, but does impose a significant cost burden.

DATE: Interested persons are invited to submit written comments on this proposal. All comments must be filed by November 18, 1982. Late filed comments will be considered so far as practicable. Interested persons should submit as part of their written comments all the material that is considered relevant to any statement of fact or argument made.

ADDRESS: Communications should be sent to the Dockets Branch, Room 8426, Materials Transportation Bureau, U.S. Department of Transportation, 400 7th Street, S.W., Washington, D.C. 20590, and identify the docket and notice numbers.

FOR FURTHER INFORMATION CONTACT: Frank Robinson, 202-426-2392.

SUPPLEMENTARY INFORMATION:**Background**

Under the requirements of § 195.234, at least 10 percent of the girth welds made daily on a pipeline must be nondestructively tested to determine the acceptability of the welds. In addition, 100 percent of the girth welds that are located in specified areas (where a defect might occur or a spill could have serious consequences) must be nondestructively tested. To assure compliance with these testing requirements, § 195.234(g) requires that a record be kept for 3 years of welds that have been nondestructively tested, showing, if practicable, the location of the weld, and including the developed film for welds tested by radiography. Besides serving as a check on compliance, MTB believes that the drafters of § 195.234(g) thought that

retained radiographs would be advantageous in analyzing any leak that might develop in a radiographed weld.

In addition to the § 195.234(g) requirements, § 195.266(a) requires that a complete record be kept for the life of the facility showing the total number of girth welds and the number nondestructively tested, including the number rejected and the disposition of each rejected weld.

Two persons have petitioned MTB to delete the radiograph retention requirement from § 195.234(g). In a letter dated September 21, 1977 (Pet. 77-11), Consolidated X-Ray Service Corporation requested that § 195.234(g) be made identical to the comparable recordkeeping requirement for gas pipelines set forth in § 192.243(f), which does not require retention of radiographs, or the exact location of each weld. Consolidated argued that the requirement for gas pipelines should be sufficient for liquid pipelines, since the construction methods (i.e., materials used, welding practices, and inspection techniques) are the same for the two types of pipelines. Consolidated also pointed out that although radiograph retention was initially proposed for inclusion in § 192.243(f) (35 FR 1112), it was deleted in the final rule (35 FR 13248) in favor of the current, more general requirement on grounds that "retention of X-ray film would present a substantial clerical burden, and will not prove too valuable in accident investigation."

Colonial Pipeline Company, by letter dated October 17, 1978, also requested that the requirement to retain weld radiographs be deleted from § 195.234(g). Colonial argued that the objective of radiographic inspection of girth welds is to control the quality of welding, and that this objective is met by immediately bringing any problems that are detected to the attention of the welders. Thus, Colonial concludes, a weld radiograph loses its usefulness after a weld is initially accepted or rejected. In further argument against the need to retain radiographs beyond their initial interpretation, Colonial argued that a record of film interpretation and subsequent disposition of the weld, combined with a metallurgical examination, would be sufficient to explain any weld failure that might occur. Colonial also said the burdens associated with radiograph retention (the clerical tasks of rolling, marking, transporting, and storing film as much as 132 inches in length) are costly, and the time spent by inspectors who perform

these tasks reduces their effectiveness in visually inspecting and interpreting film of additional welds.

Objective

Part 192 for gas pipelines and Part 195 for hazardous liquid pipelines both have recordkeeping requirements pertaining to nondestructive testing of girth welds. The requirements are not the same, however, and MTB believes the requirements of Part 192 are adequate for the purposes of providing evidence for enforcement and information to supplement a metallurgical analysis of any future leaks occurring in girth welds that have been nondestructively tested.

The added burdens of keeping radiographic film as well as mapping the location of each weld currently imposed by § 195.234(g) do not appear necessary to achieve the recordkeeping purposes, since for similarly constructed gas pipelines, mere statements attesting to compliance have proved sufficient for enforcement needs, and as one of MTB's predecessor agencies, the Office of Pipeline Safety, concluded in 1970, old radiographs are not particularly helpful in accident analysis. Therefore, MTB is proposing to revoke § 195.234(g) but retain § 195.266(a) for the girth weld recordkeeping requirement, making the requirements of Part 195 similar to Part 192. Under this proposal, in contrast to the present rule, retention of radiographic film would not be required; records would have to be kept for the life of the pipeline, but the records need not show the precise location of each weld tested.

Issue

A further benefit that derives from § 195.234(g) is that retained radiographs enable enforcement personnel to verify the judgments about weld quality made by persons who originally interpreted the film. Welding irregularities involving both misread and falsified radiographs were discovered in this manner on the Trans-Alaska crude oil pipeline, and have been discovered by pipeline operators' own quality control personnel on other pipelines. Some persons might argue, therefore, that radiographs should be retained for this reason. MTB does not agree, however, because deliberate misrepresentation can occur with respect to any type of record, and because the quality of finished girth welds is further assured by Part 195 through requirements other than nondestructive testing. For example, Subpart D requires that welds be visually inspected and that welders and welding procedures be qualified by

testing. Also, under Subpart E, each pipeline must be hydrostatically tested. MTB believes that these controls, including the requirement to nondestructively test certain welds, are sufficient to assure weld quality, making the added requirement of retaining radiographs until there is opportunity for examination by MTB enforcement personnel superfluous. Such examination may occur, nevertheless, during the normal course of MTB's compliance investigations of pipeline construction activity.

If § 195.234(g) is deleted as proposed, the question of whether radiographs must be retained beyond the stage of initial interpretation until they are reviewed by an operator's quality control personnel would depend on the procedures the operator establishes under § 195.234(c) for interpretation of radiographs. If those procedures provide for quality control review, then the radiographs would have to be kept until that review is completed and a final decision is made as to weld acceptability. However, since Part 195 does not require a second level review of radiographs, if an operator does not

include one in its interpretation procedures under § 195.234(c), then radiographs could be disposed of after the initial interpretation and decision as to weld acceptability.

MTB believes that significant cost savings will result from this proposed rule. Determining the exact location of each weld and identifying, transporting, and storing film is relatively expensive, especially on large pipelines. The MTB estimates that approximately \$2.5 million is spent annually by the liquid pipeline industry mapping radiographed welds, and an additional \$0.8 million is spent annually on retaining radiographs. The MTB believes these costs can be substantially eliminated without reducing public safety. A Regulatory Evaluation is available in the docket.

Since this proposed rulemaking action will have a positive effect on the economy of less than \$100 million a year, will result in a cost savings to consumers, industry, and government agencies, and no adverse effects are anticipated, the action is not "major" under Executive Order 12291 or "significant" under Department of

Transportation procedures.

Based on the facts available concerning the impact of this rulemaking action, I certify pursuant to Sec. 605 of the Regulatory Flexibility Act, that the action will not, if adopted as final, have a significant economic impact on a substantial number of small entities.

List of Subjects in 49 CFR Part 195

Ammonia, Petroleum, Pipeline safety, Reporting and recordkeeping requirements.

In view of the above, MTB proposes to amend Part 195 of Title 49 of the Code of Federal Regulations by revoking § 195.234(g).

(49 U.S.C. 2002; 49 CFR 1.53, Appendix A to Part 1, and Appendix A to Part 106)

Issued in Washington, D.C., on September 28, 1982.

Richard L. Beam,

Associate Director for Pipeline Safety Regulation, Materials Transportation Bureau.

[FR Doc. 82-27229 Filed 10-1-82; 8 45 am]
BILLING CODE 4810-80-01

DEPARTMENT OF TRANSPORTATION

Research and Special Programs
Administration

49 CFR Parts 192 and 195

(Docket PS-88; Notice 2)

Transportation of Natural and Other
Gas by Pipeline Transportation of
Hazardous Liquids by Pipeline; Placing
Longitudinal Weld Seams in Upper Half
of PipeAGENCY: Materials Transportation
Bureau (MTB), Research and Special
Programs Administration, DOT.ACTION: Withdrawal of Advance Notice
of Proposed Rulemaking (ANPRM).

SUMMARY: An ANPRM sought information concerning the need for a new safety standard that would require placement of the longitudinal weld seams in the upper half of newly constructed pipelines as a means to reduce the number of accidents caused by internal corrosion.

The comments to the ANPRM, recommendations by members of advisory committees for gas and liquid pipelines, and a review of accident reports submitted to MTB indicate that the location of the weld seam is not expected to be a factor in corrosion caused accidents that might occur on newly constructed pipelines. Consequently, the ANPRM is withdrawn.

FOR FURTHER INFORMATION CONTACT: Frank Robinson, 202-426-2392.

SUPPLEMENTARY INFORMATION: The MTB issued an ANPRM (45 FR 20142, March 27, 1980) seeking information concerning a recommendation (72-P-9) by the National Transportation Safety Board (NTSB) to locate the longitudinal weld seam in the upper half of the pipe during pipeline construction to avoid the potential for internal corrosion occurring at the weld seam or heat affected zone. According to the NTSB, internal corrosion on the bottom of the pipe will weaken an insufficiently bonded longitudinal seam when it also is located on the bottom of the pipe and the pipe will fail at such locations. This condition prevails in pipelines transporting gas or hazardous liquids according to NTSB.

The ANPRM sought information necessary to define the safety problem addressed by the recommendation, to evaluate the effectiveness of the recommendation, and to weigh the technical and economic practicability of the recommendation. In addition to publishing the ANPRM, the MTB

brought the recommendation before the Technical Pipeline Safety Standards Committee (TPSSC) for gas pipelines on December 9, 1980, and the Technical Hazardous Liquid Pipeline Safety Standards Committee (THLPSSC) on December 17, 1981, in order to gain the views of committee members as well as views of the public.

Other than the NTSB, the 40 commenters responding to the ANPRM did not support adoption of a new safety standard to place the longitudinal seam in the upper half of the pipe for gas transmission or distribution pipelines or for hazardous liquid pipelines. These commenters argued that industry experience indicates that failures are seldom if at all caused by internal corrosion in the longitudinal seam or heat affected zone. While not agreeing with NTSB that corrosion in the longitudinal weld seam or heat affected zone is a potential problem, these commenters argued that current welding technology together with precise quality control of the weld and improved control of pipe metal chemistry prevents the occurrence of weld seams which are insufficiently bonded.

During the TPSSC meeting on December 9, 1980, the NTSB reiterated its position in favor of adopting the rule. The committee members, however, expressed the view that (1) the weld seam or heat affected zone is not more subject to internal corrosion than the body of the pipe, and (2) experience of the committee members with liquid and gas pipelines does not indicate that internal corrosion in the weld seam or heat affected zone is a serious safety problem. The TPSSC suggested that accident reports submitted to MTB be examined to determine whether a serious safety problem is indicated by the data.

The MTB accident records were surveyed to determine the incidence of accidents that might be attributable to internal corrosion in the longitudinal weld seam or heat affected zone. None of the 3,144 liquid pipeline accidents reported to date involved internal corrosion in the longitudinal seam other than the Phillips Pipe Line Company December 9, 1970, accident noted in the ANPRM.

Only six accidents reporting internal corrosion in the longitudinal seam were found in the 12,782 gas transmission and distribution pipeline accidents to date. All six of these accidents were on the same transmission pipeline within a few miles of each other which indicates a local problem rather than a problem throughout the industry. Further, four of these six accidents occurred during hydrostatic test and thus were not

failures in the ordinary sense. Additionally, the accident data did not include the location of the longitudinal seam and, therefore, placement of the longitudinal seam cannot be correlated with those remaining two failures which might indicate the existence of a safety problem.

The majority of the members of the THLPSSC, after reviewing the ANPRM, the comments submitted in response to the ANPRM, and the MTB accident records, favored withdrawing the ANPRM for lack of information indicating the existence of a serious safety problem.

In view of the negative comments in response to the ANPRM, the lack of support for the proposal by the TPSSC and the THLPSSC, and the lack of statistical data in the accident reports indicating the existence of a serious safety problem, the MTB does not believe that the placement of the longitudinal weld seam poses a serious safety problem. While the Phillips accident and the six accidents in gas pipelines involved corrosion in the weld seam, the MTB believes that (1) these were isolated cases and do not represent a general, widespread condition, and (2) the type of weld defect that might have caused these failures is unlikely to recur on newly constructed pipelines due to the application of modern manufacturing techniques. Therefore, the MTB hereby withdraws the ANPRM concerning placement of the longitudinal weld seam in the upper half of pipe, as published at 45 FR 20142, March 27, 1980.

(49 U.S.C. 1672; U.S.C. 2001; 49 CFR 1.53(a), Appendix A of Part 1 and Appendix A of Part 106)

Issued in Washington, D.C., on February 8, 1982.

Meivim A. Judah

Acting Associate Director for Pipeline Safety
Regulation Materials Transportation Bureau.

[FR Doc. 82-3671 Filed 2-12-82; 8:45 am]

BILLING CODE 4910-80-M

APPENDIX B

GAS PIPELINE SAFETY ENFORCEMENT ACTIVITY-1982

ENFORCEMENT CASES INITIATED

SYSTEM OPERATOR

LOCATION

State University of New York	Buffalo, NY
Columbia Gas Transmission Corporation	Strasburg, VA
Tennessee Gas Pipelines	Hamburg, NY
Carnegie Natural Gas Company	Munhall, PA
Columbia Gas Transmission Corporation	Charleston, WV
Commercial Pipeline Company, Inc.	Wichita, KS
Northern States Power Company	Eau Claire, WI

(Systems Operated by Towns and Municipalities)

Commerce, GA	Logansport, LA
Lawrenceville, GA	Ville Platte, LA
Vanceburg, KY	DeQuincy, LA
Dublin, GA	Melville, LA
Wheelwright, KY	Gueydon, LA
Port Barre, LA	Waterproof, LA
Berwick, LA	Summesport, LA
Baldwin, LA	Paluietto, LA
Vernon Parish Gas	Pitkin, LA
Utility District 1	

WARNING LETTERS ISSUED IN 1982

SYSTEM OPERATOR

LOCATION

Indiana Utilities Corp
Missouri Public Service Co.
Waynesboro Housing Authority
Natural Gas Pipeline Co. of America
Midwestern Gas Transmission Co.
Interstate Power Co.
Iowa-Illinois Gas and Electric Co.
Panhandle Eastern Pipeline Co.
El Paso Natural Gas Co.
Casa Mobile Park (Casa Mobile Corp.)
Michigan Gas Storage Co.
Pointe Coupee Parish, G.U.D. #2
Tennessee Gas Pipeline

Corydon, IN
Kansas City, MO
Waynesboro, GA
Chicago, IL
Vincennes, IN
Dubuque, IA
Davenport, IA
Kansas City, MO
El Paso, TX
Sacramento, CA
Jackson, MI
New Roads, LA
Houma, LA

(Systems Operated by Towns and Municipalities)

Austell, GA
Monticello, GA
Newellton, LA
Hawkinsville, GA
Byron, GA
St. Francisville, LA
Firest Hill, LA
Morganza, LA
Roseland, LA
Wheelwright, KY
Pikeville, KY
Cordele, GA
Krotz Springs, LA

San Francisco, LA
Richland, GA
Dublin, GA
Livingston, LA
Patterson, LA
Tompkinsville, KY
Oscilla, GA
Blaine, KY
Scottsville, KY
Ferguson, KY
Doerun, GA
Harrisonburg, LA
Basile, LA

GAS PIPELINE ENFORCEMENT CASES CLOSED IN 1982

WITHDRAWAL OF PROPOSED COMPLIANCE ORDER

Columbia Gas Trans. Corp.
Tennessee Gas Pipelines
Carnegie Natural Gas Company

Strassburg, VA
Hamburg, NY
Munhall, PA

HAZARDOUS FACILITY ORDER RESCINDED
(Corrective Action Taken)

Boston Gas Company

Boston, MA

POST COMPLIANCE ORDER REVIEW

North Central Public Service Co.
Western Gas Utilities, Incorporated
Livingston Parish, GUD #1-A
Luverne Farm Store Gas Co.
Minnesota Gas Company

Coon Rapids, MN
Eau Claire, WI
Independence, LA
Luverne, MN
Sounix Falls, SD

(Systems Operated by Towns and Municipalities)

Adarsville, GA
Morgansfield, KY
Union Point, GA
Grantville, GA
Carencro, LA

Hazard, KY
Owatonna, MN
Ville Platte, LA
Delcambre, LA
Watertown, SD

COLLECTION OF PENALTY
(Systems Operated by Towns and Municipalities)

Ville Platte, LA	\$1,000.00
Plaquemine, LA	\$2,000.00

WARNING LETTERS ISSUED
(Systems Operated by Towns and Municipalities)

Livingston Parish, GUD #1-B, Independence, LA	
Vernon Parish GUD #1, Pitkin, LA	Port Barre, LA
DeQuincy, LA	
Berwick, LA	

Appendix C

HAZARDOUS LIQUID PIPELINE ENFORCEMENT ACTIVITY IN 1982

WARNING LETTERS ISSUED

<u>SYSTEM OPERATOR</u>	<u>LOCATION</u>
Sun Pipeline Company	Tulsa, OK
Jayhawk Pipeline Corporation	Wichita, KS
Cal-Nev Pipeline Company	San Bernardino, CA
National Cooperative Refinery Association	McPherson, KS
Continental Pipeline Company	Tulsa, OK
Wolverine Pipeline Company	Dallas, TX
Total Pipeline Corporation	Denver, CO
Farmland Industries, Incorporation	Kansas City, MO

ENFORCEMENT CASES INITIATED 1982

Williams Pipeline Company	Tulsa, OK
Schio Pipeline Company	Longview, TX
Phillips Pipeline Company	Bartlesville, OK

ENFORCEMENT CASES CLOSED 1982

Post Compliance Order Review

Williams Pipeline Company	Tulsa, OK
Vickers Petroleum Corporation	Wichita, KS

Collection of Civil Penalty

Williams Pipeline Company	Tulsa, OK
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Withdrawal of Notice of Probable Violation

Cities Service Pipeline Company	Tulsa, OK
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