DEPARTMENT OF TRANSPORTATION

Research and Special Programs Administration

[Docket No. P-93-2W; Notice 2]

Grant of Waiver: Repair of Gas Transmission Lines

Summary. The Research and Special Programs Administration (RSPA) waives certain maintenance regulations to permit various gas pipeline operators to repair steel transmission lines with Clock Spring® wrap. The waiver, which is subject to conditions and future performance evaluations, advances the use of new technology.

Background. Twenty-eight companies and their subsidiaries,[1] all gas pipeline operators, requested that RSPA waive the safety standards in 49 CFR 192.713(a) and 192.485 for gas transmission lines operating at 40 percent or more of specified minimum yield strength (SMYS). The operators requested the waiver to get permission to repair the lines with Clock Spring® wrap.[2] The request came in a November 22, 1993, petition submitted by the Interstate Natural Gas Association of America (INGAA), a gas pipeline trade association.[3]

Under §192.713(a), each imperfection or damage that impairs the serviceability of a segment of transmission line operating at 40 percent or more of SMYS must be repaired. If it is feasible to remove the line from service, pipe containing the imperfection or damage must be replaced. Otherwise, a full encirclement welded split sleeve must be installed over the imperfection or damage. The waiver request asks permission to use Clock Spring® wrap for repairs instead of the methods prescribed by §192.713(a).

Section 192.485(a) requires replacement of transmission line pipe that is generally corroded to the extent that wall thickness is unsafe, unless operating pressure is reduced appropriately or, if the area of general corrosion is small, the corroded pipe is repaired. A similar requirement applies under §192.485(b) to transmission lines with unsafe localized corrosion pitting, except that repair is not limited to small areas. The waiver request asks permission to use Clock Spring® wrap to repair large areas of general corrosion as an alternative to pipe replacement or pressure reduction under §192.485(a).[4]

In an earlier waiver of §192.713(a), RSPA allowed Panhandle Eastern Corporation (Panhandle) to use Clock Spring® wrap to repair six locations on its Line # 2 in Fayette County, Ohio (58 FR 13823; March 15, 1993). The waiver was subject to the conditions that Panhandle: (1) Install the wrap using the procedures described in documents supporting its petition; (2) perform the inspections described in its petition;[5] (3) promptly report to RSPA the results of the inspections and any unfavorable performance of the wrap, and (4) determine and report to RSPA the cause of any unfavorable performance. In addition, Panhandle advised that it would determine the need to repair generally corroded areas by using ASME B31G, ``Manual for Determining the Remaining Strength of Corroded Pipelines.'' Also, Panhandle said it would determine whether Clock Spring® wrap would provide a reliable repair in particular instances by using a computer program developed by the Gas Research Institute (GRI) based on laboratory and field tests of pipe repaired with the wrap.

In the present waiver request, the operators offered to conform to the Panhandle waiver, except that they would: (1) Use an enhanced program, GRI WRAP, to determine whether Clock Spring® wrap would provide a reliable repair in particular instances; (2) use either the ASME B31G procedure or RSTRENG[6] to determine if corroded areas require repair under §192.485; (3) coordinate Clock Spring® wrap installations with GRI (to establish a representative data base to support a possible rule change), and within 2 years, with GRI's assistance, excavate and evaluate a statistical sampling of sites,[7] record the results, and give the results to RSPA upon request; (4) report Clock Spring® wrap repairs to RSPA or its state agent within 30 days of repair; (5)

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1 ANR Pipeline Co.; Arkla Energy Resources Co. (including Mississippi River Transmission Co.); CNG Transmission Corp.; Colorado Interstate Gas Co. (including Wyoming Interstate Co., Ltd. and Young Gas Storage Co., LTD.); Columbia Gas Transmission Corp.; Columbia Gulf Transmission Co.; El Paso Natural Gas Co.; Enron Corp. (including Florida Gas Transmission Co., Houston Pipe Line Co., Intratex Gas Company, Northern Border Pipeline Co., Northern Natural Gas Company, Oasis Pipeline Co., and Transwestern Pipeline Co.); Granite State Gas Transmission Company; Great Lakes Gas Transmission Co.; Kern River Gas Transmission Co.; KN Energy, Inc.; Koch Industries, Inc. and all subsidiaries; Michigan Consolidated Gas Co.; Mid Louisiana Gas Co.; Natural Gas Pipeline Company of America and all subsidiaries; Michigan Consolidated Gas Co.; Mid Louisiana Gas Co.; Natural Gas Pipeline Company of America and all subsidiaries; Northwest Pipeline Corp.; Pacific Gas & Electric Co.; Pacific Gas Transmission Co.; Panhandle Eastern Corp. (including Panhandle Eastern Pipeline Co., Texas Eastern Transmission Co., Trunkline Gas Co., and Algonquin Gas Transmission Co.); Questar Pipeline Co.; Southern California Gas Co.; Southern Natural Gas (including Southern Natural Gas Co., South Georgia Natural Gas Co., Sea Robin Pipeline Co., Sonat Intrastate-Alabama Inc., and Bear Creek Storage Co.); Tenneco Gas Transportation Co. (including Tennessee Gas Pipeline Co, East Tennessee Natural Gas Co., Midwestern Gas Transmission Co., and Channel Gas Transmission Co.); Texas Gas Transmission Corp.; Transcontinental Gas Pipe Line Corp.; Williams Natural Gas Co.; and Williston Basin Interstate Pipeline Co.

2 Clock Spring® wrap, manufactured by the Clock Spring Company of North America, is a composite material of polyester resin reinforced by glass filament. On installation, it is tightly wound and adhesively bonded to damaged pipe.

3 By letter dated March 22, 1994, INGAA added Granite State Gas Transmission Company to the original list of companies seeking a waiver.

4 Section 192.485(a) does not preclude the use of Clock Spring® wrap to repair small areas of general corrosion, nor does §192.485(b) preclude the use of Clock Spring® wrap to repair localized corrosion pitting. However, if these defects are on transmission lines operating at 40 percent or more of SMYS, §192.713(a) precludes their repair with Clock Spring® wrap.

5 The inspections include examination and measurement of Clock Spring® wrap repairs and samples of wrap buried next to the repairs. Two repairs are to be evaluated at intervals of 2, 4, and 8 years. Measurements include strain gage readings of two repairs at 6-month intervals to verify the absence of wrap and adhesive creep.

6 RSTRENG is a computer program developed to carry out the procedure called ``A Modified Criterion for Evaluating the Remaining Strength of Corroded Pipe.'' This procedure was developed by Battelle for the American GAs Association as an alternative to the ASME B31G procedures. Both B31G and RSTRENG may be used to comply with §192.485.

7 The INGAA petition defined a site to include multiple repairs on a single pipeline in the same area or multiple pipelines in the same right-of-way in the same area.

use personnel to install Clock Spring® wrap who have been trained and certified by Clock Spring Company; and (6) record installations of Clock Spring® wrap under §192.709.[8]

Comments on Proposed Waiver/ In Notice 1 of this proceeding (59 FR 49739; September 29, 1994), RSPA proposed to grant the present waiver request for the safety and economic reasons stated in the notice. However, we proposed to restrict the waiver to repairs no more than 10 feet long. We felt this restriction was needed because the pipeline industry has had no experience in repairing large areas of generally corroded pipe other than by pipe replacement. At the same time, we specifically requested comments on the aspect of the waiver request that would allow unlimited areas of general corrosion to be repaired with Clock Spring® wrap. In addition, regarding the offer to report Clock Spring® wrap repairs, we proposed that reports be sent both to RSPA and to the state agent. We also proposed that the reports be sent [[Page 10631]] before the time of installation to give RSPA or the state agent a chance to inspect the installation process. As to the offer concerning personnel qualification, we proposed that initial training and certification be supplemented by periodic refresher training and recertification. Finally, we said we would review the performance evaluations of Clock Spring® wrap repairs, and consider terminating the waiver 3 years after it is granted.

RSPA received written comments on the proposed waiver from eight entities: INGAA, Enron Operations Corp. (Enron), Southern Natural Gas (Southern), Coastal Corporation (Coastal), Bay State Gas Company (Bay State), Columbia Gas Transmission Corporation, Natural Gas Pipeline Company of America (Natural), and Panhandle. The comments are discussed below according to the issues presented. All the commenters supported the proposed waiver, although some commenters requested changes in the proposed conditions under which the waiver could be applied.

Reporting Repairs. INGAA, Enron, Natural, and Panhandle advised that 30 days' advance notification would not be in the public interest when repairs are needed quickly. Coastal wanted RSPA to accept the original proposal to report Clock Spring® wrap repairs within 30 days after installation. INGAA and Natural suggested the waiver allow operators to give notice when they decide to use Clock Spring® wrap to repair a damaged pipeline. The operators, said INGAA, Coastal, and Natural, should then be allowed to proceed immediately with repairs, unless, INGAA and Natural said, the appropriate agency tells the operator it wants to view the installation. Panhandle opposed this latter condition because it would make pipeline maintenance subject to agency schedules.

Given the importance of repairing unsafe conditions as soon as practicable, requiring notification of Clock Spring® wrap repairs at least 30 days beforehand could discourage use of the wrap. Although we agree operators should not have to conform their repair plans to government work schedules, RSPA or state agents need some period of advance notification to prepare to inspect wrap installations. Therefore, as a condition of the waiver, we are requiring that operators report scheduled Clock Spring® wrap repairs a reasonable time in advance of installation to allow for government inspection. Under this condition, which does not apply to emergency installations, deciding when to install Clock Spring® wrap after giving notice must take into account the reasonable travel time of government inspectors. But operators would not have to delay installation to conform to government work schedules apart from reasonable travel time.

Personnel Training. INGAA, Coastal, and Natural suggested the waiver allow installation personnel who have been trained and certified by the Clock Spring Company to train and certify other personnel. Also, INGAA suggested refresher training and recertification should be required only for personnel who infrequently install Clock Spring® wrap. Enron recommended that certified installers maintain their qualifications under RSPA's proposed qualification of personnel rules.[9]

Our concern about Clock Spring® wrap installers is that they be qualified. The suggestion that persons who have received initial training and certification from the Clock Spring Company be allowed to train and certify others is reasonable and would satisfy this concern. As for refresher training, installers would be subject to the refresher training requirements of the proposed qualification rules. Because we probably will issue final qualification rules before installers need refresher training, it is not now necessary to make refresher training part of this waiver. However, when we consider the performance evaluations of Clock Spring® wrap, we will reexamine the refresher training issue if final qualification rules have not been published.

Waiver Termination. Enron asked us not to include a termination date in the waiver. Instead, Enron recommended the waiver remain in effect until it is revoked or becomes unnecessary because of a change in the regulations. Southern advised the waiver should be extended after 3 years if the performance evaluations are favorable.

By saying we would consider terminating the waiver within 3 years after it is granted, we meant the waiver might be revoked after 3 years if the performance of Clock Spring® wrap repairs is generally unfavorable. We did not intend for the waiver to last only 3 years. If the initial evaluations are favorable, the waiver would continue in effect, unless new information causes us to revoke the waiver or a rule change makes the waiver no longer necessary.

Repair Length. Southern requested that we clarify that the proposed 10-foot restriction applies to corroded pipe under §192.485(a), and not to imperfections or damage under §192.713(a). Coastal asked that we eliminate the proposed restriction entirely, saying there is no practical limit to repairs using Clock Spring® wrap. Bay State said the 10-foot limit was arbitrary, since Clock Spring® wrap has been shown to be an effective alternative to pipe replacement. Panhandle felt the 10-foot limit was unnecessary and artificial.

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8 Section 192.709 requires pipeline operators to keep a record of each repair to a transmission line for as long as the line is in service. This requirement applies to all transmission line repairs, and would apply to Clock Spring® wrap repairs regardless of the offer to comply with the regulation.

9 RSPA proposed qualification standards for persons who perform, or supervise the performance of, operation, maintenance, or emergency-response functions regulated under 49 CFR Part 192 or 195 (59 FR 39506; Aug. 3, 1994). To maintain qualifications, refresher training was proposed to occur at 24-month intervals after certification.

As stated above, RSPA specifically asked for comments on the merits of allowing unlimited areas of general corrosion to be repaired with Clock Spring® wrap. None of the commenters expressed concern about the safety of using Clock Spring® wrap beyond the 10-foot range. Indeed, a few commenters pointed out there is no engineering basis for imposing a 10-foot limit. Accordingly, in the absence of an engineering basis, and considering the sound GRI test results and the plans to evaluate Clock Spring® wrap installations, we believe the waiver may be applied safely without a limit on the length of repair.

Role of GRI. Panhandle requested clarification of GRI's role in carrying out the waiver. The operator did not welcome assistance from GRI in any capacity other than as a record keeper.

Because Clock Spring® wrap is new technology, a major purpose of this waiver is to provide an opportunity to evaluate the performance of the wrap under various operating conditions. Long range, if the results are favorable, we would use the collected data as a basis to change the safety standards that, in certain instances, prohibit the use of Clock Spring® wrap as a pipeline repair method. As mentioned above, GRI has agreed to assist operators in this data collection effort by assuring the data are representative. GRI also will assist operators to evaluate the wrap in a statistical sampling of sites, record the results, and provide the results to RSPA. GRI's participation will add uniformity and reliability to evaluations that might otherwise vary among operators. Thus, we believe GRI's participation is an integral part of this waiver. Any operator who is unwilling to cooperate with GRI in the data collection aspect of this waiver is not entitled to apply the waiver.

Grant of Waiver.Therefore, for the reasons stated in Notice 1 of this proceeding, RSPA, by this order, finds that the requested waiver is not inconsistent with pipeline safety. The petition for waiver of §§ 192.485 and 192.713(a), allowing the use of Clock Spring® wrap to repair large areas of general corrosion or other imperfections or damage on transmission lines operating at 40 percent or more of SMYS, is granted to the 28 companies and their subsidiaries, subject to the following conditions:

(1) Clock Spring® wrap must be installed using procedures recommended by the manufacturer;

(2) Clock Spring® wrap must be installed consistent with the program, GRI WRAP;

(3) Clock Spring® wrap must be installed consistent with a GRI plan, including, at 2-year intervals, excavating and evaluating a statistical sample of sites, recording the results, and sending the results to RSPA;

(4) To allow inspection by RSPA and state agencies serving as interstate enforcement agents, scheduled non-emergency installations of Clock Spring® wrap must be reported (by phone, fax, or mail) a reasonable time before installation to the RSPA pipeline regional office and state agent with authority over the repair; and

(5) Persons installing Clock Spring® wrap must have been trained and certified in installation procedures either by the Clock Spring Company or by persons the Clock Spring Company has trained and certified.

Authority: 49 U.S.C. §60118(c)

George W. Tenley, Jr.,
Associate Administrator for Pipeline Safety.

[FR Doc. 95-4704 Filed 2-24-95; 8:45 am]

DEPARTMENT OF TRANSPORTATION

Research and Special Programs Administration

49 CFR Parts 192 and 195

[Docket No. RSPA-98-4733; Notice 1]

RIN 2137–AD25

Pipeline Safety: Gas and Hazardous Liquid Pipeline Repair

AGENCY: Research and Special Programs Administration (RSPA), DOT.

ACTION: Notice of proposed rulemaking.

SUMMARY: We are proposing to adopt a safety performance standard for the repair of corroded or damaged steel pipe in gas or hazardous liquid pipelines. Because present safety standards specify particular methods of repair, operators must get approval from government regulators to use innovative repair technologies. The proposed standard would encourage technological innovations and reduce repair costs without reducing safety.

DATES: Submit written comments by June 7, 1999.

ADDRESSES: All comments should identify the docket number and title of this action, which are stated above in the heading. Comments may be mailed or delivered to the Docket Facility, U.S. Department of Transportation, Room #PL-401, 400 Seventh Street, SW, Washington, DC 20590-0001. The original and two copies should be submitted. Persons who want confirmation of mailed comments must include a self-addressed stamped postcard. Comments may also be e-mailed to ops.comments@rspa.dot.gov in ASCII or text format. The Dockets Facility is open from 10:00 a.m. to 5:00 p.m., Monday through Friday, except on Federal holidays when the facility is closed.

FOR FURTHER INFORMATION CONTACT: L. M. Furrow at (202)366–4559 or furrowl@rspa.dot.gov. Comments may be read on the internet at http://dms.dot.gov. General information about RSPA's pipeline safety program can be obtained at http://ops.dot.gov.

SUPPLEMENTARY INFORMATION:

Current Pipeline Repair Safety Standards

If a pipeline operator discovers an unsafe pipe dent during the construction of a steel gas transmission line or main to be operated at 20 percent or more of specified minimum yield strength (SMYS), DOT safety standards require that the operator remove the dent by cutting out the damaged piece of pipe as a cylinder (49 CFR 192.309(b)). This repair requirement does not allow operators to use new or more innovative technologies to repair the dent.

One of the DOT maintenance standards for steel gas transmission lines operating at 40 percent or more of SMYS similarly disallows the use of new technologies (49 CFR 192.713). Under this standard, if an operator discovers an imperfection or damage to pipe that impairs the serviceability of the line, the operator must either replace the pipe or repair it by installing a full encirclement split sleeve of appropriate design. Although this standard permits operators to use two widely-accepted methods of pipe repair, because it prescribes methods of repair rather than what the repair should accomplish, the standard lacks

flexibility. It denies operators the opportunity to take advantage of innovative repair methods. It also discourages operators from developing new repair methods that may be more economical.

Some DOT safety standards governing the repair of corroded pipe also lack flexibility: If a gas transmission line has a large area of general corrosion that has reduced the pipe wall below the thickness required for the maximum allowable operating pressure (MAOP), the corroded pipe must be replaced, unless its operating pressure is reduced (49 CFR 192.485(a)). In gas distribution pipelines, such corroded pipe must be replaced (49 CFR 192.487(a)). In hazardous liquid or carbon dioxide pipelines, such pipe must be replaced unless the operating pressure is reduced (49 CFR 195.416(f)).

All these repair standards were based on recommended industry practices in vogue over 30 years ago. The 1968 edition of the American Society of Mechanical Engineers (ASME) B3 1.8 Code was the basis for §§ 192.309(b) and 192.713, while §§ 192.485(a) and 192.487(a) were based on the 1969 edition of the National Association of Corrosion Engineers Standard RP-0 1–69. Section 195.416(f) was based on a comparable provision of the 1966 edition of the ASME B31.4 Code. Since then, the DOT standards based on these practices have not kept pace with changes in technology.

Performance Oriented Standards and Recent Waivers

For steel pipe not subject to repair restrictions under §§ 192.309(b), 192.485(a), 192.487(a), 192.713, or 195.4 16(f), operators may and do use methods besides pipe replacement and split sleeves to repair corroded or damaged steel pipe. These methods include composite pipe wraps, grinding, hot tapping, and weld deposition. For example, a gouge that impairs the serviceability of a steel gas transmission line operating at less than 40 percent of SMYS is not covered by § 192.713. This defect would be subject to the less restrictive repair requirement of § 192.703(b), which allows repair by any method that returns the pipe to a safe condition.

In recent years, various pipeline operators have sought relief from the requirement to repair high-stress steel gas transmission lines by the traditional methods of pipe replacement or installation of full-encirclement split sleeves. These operators wanted to use a new repair system called Clock Spring@ to simplify and reduce the average cost of repairs. This system, which consists of a fiberglass/polyester composite material coiled with adhesive in layers over a filler, reinforces steel pipe that has certain non-leaking defects. According to tests and analyses done by the Gas Research Institute (GRI), when properly installed, the system permanently restores the pressure containing capability of the pipe.[1]

Based on GRI's field and laboratory performance data, we concluded that this new technology provides at least the same level of safety on high-stress transmission lines as pipe replacement or a full-encirclement split sleeve. Therefore, we granted the operators' requests by waiving the applicable requirements.[2] No problems involving installations under the waivers have been reported. Moreover, GRI's inspection of a statistical sample of installations under the waivers did not show any evidence of creep, degradation, or loss of reinforcement.[3]

The Proposal

To add flexibility to §§ 192.309(b), 192.485(a), 192.487(a), 192.713, and 195.416(f), we are proposing to allow operators to use repair methods that meet a performance standard. The proposed standard is that the method must be able to "permanently restore the serviceability of the pipe." We chose this wording because it describes the result expected from replacing damaged pipe or installing a full-encirclement split sleeve over the damage to pipe. We expect at least the same result from a qualified alternative repair method.

As to the permanency of repair, we are not suggesting that the repair should last indefinitely. It need last only as long as the pipe is expected to last under normal operating and maintenance conditions.

Whether a particular repair method will restore the serviceability of the pipe depends on the loading the repaired pipe must support. Sometimes pipe and particularly pipe joints are subjected to significant longitudinal forces imposed by external loads. Where longitudinal forces are a design consideration, a repair method that structurally serves only to contain internal pressure might not suffice to restore the serviceability of the pipe. On the other hand, if longitudinal forces are not a design consideration, a repair method that restores the pressure containing capability of the pipe would restore its serviceability.

We are also proposing that a qualified repair method must have undergone "reliable engineering tests and analyses" to confirm that the method meets the performance standard. We do not believe it necessary to propose guidelines for these tests and analyses because of the widespread use of alternative repair methods without reports of failures. So the tests and analyses need only be what a reasonable and prudent professional engineer would consider adequate to demonstrate compliance with the performance standard.

The proposed change to § 192.309(b) merely adds the performance standard to the end of the introductory clause. Operators would then have the option of either removing or repairing the described dents.

In §§ 192.485(a), 192.487(a), and 195.4 16(f), the proposed performance standard would take the place of present wording that allows the repair of small areas of general corrosion. Consequently, any corroded area, large or small, could be repaired as long as the repair method meets the performance standard. The primary purpose of this change would be to allow the repair of large corroded areas. But we are proposing to apply the proposed performance standard to small corroded areas as well because of the difficulty of distinguishing between small and large areas. Also, current methods being used to repair small corroded areas readily qualify under the proposed performance standard.

As for § 192.713, besides including the proposed performance standard, we are proposing to remove the sentences specifically allowing repair by full-encirclement split sleeves (paragraphs (a) (2) and (b)). This well-established repair method readily qualifies under the proposed performance standard.

In addition, we are proposing to drop the priority that § 192.7 13 now gives to

[1] D. R. Stephens, Summary of Validation of Clock Spring@ for Permanent Repair of Pipeline Corrosion Defects, GRI–98/0227, Gas Research Institute, Chicago, Illinois, October 1998.

[2] First we granted the Panhandle Eastern Corporation a waiver of § 192.7 13(a) to install Clock Spring® over six corrosion anomalies on Line #2 in Ohio, subject to certain monitoring and reporting conditions (58 FR 13823: March 15, 1993) Then we granted 28 interstate operators and their subsidiaries a waiver of §§ 192.485(a) and 192.7 13 (a) to install Clock Spring@ on transmission line pipe operating at 40 percent or more of SMYS, provided the operators follow the manufacturer's installation procedures, use GRIWrap® (a computer program that determines if a defect is suitable for Clock Spring@ repair), participate in GRI's evaluation plan, notify us and state interstate agents of planned installations, and use trained installers (60 FR 10630: February 27, 1995). Next we extended the February 27th waiver to include six more interstate operators (60 FR 47800; September 14. 1995). Subsequently, we authorized a few additional interstate operators to apply the February 27th waiver, and we approved similar waivers granted intrastate operators by state pipeline safety agencies in Illinois, Wyoming, and Minnesota.

[3] D. R. Stephens, op. cit., p. 53.

repair by replacement whenever it is feasible to take a damaged pipeline out of service. We know of no compelling safety reason to justify this priority, and it does not permit the use of other qualified, more economical repair methods while a pipeline is shut down. For regulatory consistency, we would also remove a similar replacement priority from § 192.717, which governs the repair of leaks.

Finally, we are proposing to terminate the requirement under §§ 192.713(a)(l) and 192.7 17 (a) (1) that replacement pipe have "similar or greater design strength" than the pipe being replaced. This qualification, which does not apply to the replacement of corroded pipe under §§ 192.485, 192.487, or 195.416, may result in an overly conservative design that is unnecessary for current operations. The safety of all replacement pipe in gas transmission lines is otherwise governed by the material, design, construction, and testing requirements of Part 192.

Regulatory Analyses and Notices

A. Executive Order 12866 and DOT Policies and Procedures

The Office of Management and Budget (OMB) does not consider this proposed rulemaking to be a significant regulatory action under Section 3(f) of Executive Order 12866 (58 FR 51735; October 4, 1993). Therefore, OMB has not reviewed this rulemaking document. DOT does not consider this proposed rulemaking significant under its regulatory policies and procedures (44 FR 11034; February *26,* 1979).

The proposed rule changes would provide operators flexibility to choose the most cost-effective method of repairing pipe, while maintaining public safety. Thus, the changes would not add costs to industry, government, or the public. In fact, the proposed changes should reduce operators' costs of transporting oil and gas, and perhaps the price consumers pay for these products. In comments on a proposed waiver to the Panhandle Eastern Corporation, the American Gas Association estimated that industry could save $6.5 million a year by using composite wrap to repair corroded or damaged pipe. Although part of the gas pipeline industry is already realizing these savings because of the Panhandle and other waivers,4 the proposed changes would create a similar opportunity for savings by the entire oil and gas pipeline industry. And still more savings could possibly result from the use of innovative technologies not covered by the waivers. This proposed rulemaking fosters the use and development of new repair technologies without additional cost to the regulated industry. A regulatory evaluation document is available for review in the docket.

[4] See note 2.

B. Regulatory Flexibility Act

The proposed rule changes would not impose additional requirements on pipeline operators, including small entities that operate regulated pipelines. Rather, the proposed changes would offer operators the opportunity to use more economical methods of repairing corroded or damaged pipe. Thus, this proposal may reduce costs to operators, including small entities. Based on the facts available about the anticipated impact of this proposed rulemaking, I certify, pursuant to Section 605 of the Regulatory Flexibility Act (5 U.S.C. 605), that this proposed rulemaking would not have a significant economic impact on a substantial number of small entities.

C. Executive Order 13084

The proposed rules have been analyzed in accordance with the principles and criteria contained in Executive Order 13084, "Consultation and Coordination with Indian Tribal Governments." Because the proposed rules would not significantly or uniquely affect the Indian tribal governments, the funding and consultation requirements of Executive Order 13084 do not apply.

D. Paperwork Reduction Act

This proposed rulemaking contains no information collection that is subject to review by OMB under the Paperwork Reduction Act of 1995.

E. Unfunded Mandates Reform Act of 1995

This proposed rulemaking would not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It would not result in costs of $100 million or more to either State, local, or tribal governments, in the aggregate, or to the private sector, and would be the least burdensome alternative that achieves the objective of the rule.

F. Na tional Environmental Policy Act

We have analyzed the proposed rule changes for purposes of the National Environmental Policy Act (42 U.S.C. 4321 *et* seq.). Because the changes would require that alternative repair methods be as safe as the methods now allowed, we have preliminarily determined that the proposed changes would not significantly affect the quality of the human environment. An environmental assessment document is available for review in the docket.

G. Impact on Business Processes and Computer Sys terns

Many computers that use two digits to keep track of dates will, on January 1, 2000, recognize "double zero" not as 2000 but as 1900. This glitch, the Year 2000 problem, could cause computers to stop running or to start generating erroneous data. The Year 2000 problem poses a threat to the global economy in which Americans live and work. With the help of the President's Council on Year 2000 Conversion, Federal agencies are reaching out to increase awareness of the problem and to offer support. We do not want to impose new requirements that would mandate business process changes when the resources necessary to implement those requirements would otherwise be applied to the Year 2000 Problem.

This notice of proposed rulemaking does not propose business process changes or require modifications to computer systems. Because this notice apparently does not affect the ability of organizations to respond to the Year 2000 problem, we do not intend to delay the effectiveness of the rule changes proposed in this notice.

H. Executive Order 12612

This action would not have substantial direct effects on states, on the relationship between the Federal Government and the states, or on the distribution of power and responsibilities among the various levels of government.

Therefore, in accordance with Executive Order 126 12 (52 FR 4 1685; October 30, 1987), RSPA has determined that the proposed rules do not have sufficient federalism implications to warrant preparation of a Federalism Assessment.

List of Subjects

49 CFR Part 192

Natural gas, Pipeline safety, Reporting and recordkeeping requirements.

49 CFR Part 195

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

In consideration of the foregoing, we propose to amend 49 CFR parts 192 and 195 as follows:

PART 192—[AMENDED]

1. The authority citation for part 192 continues to read as follows:

Authority: 49 U.S.C. 5103, 60102, 60104, 60108, 60109, 60110, 60113, and 60118; and 49 CFR 1.53.

2. In § 192.309, paragraph (b) introductory text would be revised to read as follows:

§ 192.309 Repair of steel pipe.

* * * * *

(b) Each of the following dents must be removed from steel pipe to be operated at a pressure that produces a hoop stress of 20 percent, or more, of SMYS, unless the dent is repaired by a method that can permanently restore the serviceability of the pipe, as shown by reliable engineering tests and analyses:

* * * * *

3. Section 192.485(a) would be revised to read as follows:

§ 192.485 Remedial measures: Transmission lines.

(a) *General corrosion.* Each segment of transmission line with general corrosion and with a remaining wall thickness less than that required for the MAOP of the pipeline must be replaced or the operating pressure reduced commensurate with the strength of the pipe based on actual remaining wall thickness. However, corroded pipe may be repaired by a method that can permanently restore the serviceability of the pipe, as shown by reliable engineering tests and analyses. Corrosion pitting so closely grouped as to affect the overall strength of the pipe is considered general corrosion for the purpose of this paragraph.

* * * * *

4. Section 192.487(a) would be revised to read as follows:

§ 192.487 Remedial measures: Distribution lines other than cast iron or ductile iron lines.

(a) *General corrosion.* Except for cast iron or ductile iron pipe, each segment of generally corroded distribution line pipe with a remaining wall thickness less than that required for the MAOP of the pipeline, or a remaining wall thickness less than 30 percent of the nominal wall thickness, must be replaced.

However, corroded pipe may be repaired by a method that can permanently restore the serviceability of the pipe, as shown by reliable engineering tests and analyses. Corrosion pitting so closely grouped as to affect the overall strength of the pipe is considered general corrosion for the purpose of this paragraph.

* * * * *

5. Section 192.713 would be revised to read as follows:

§ 192.713 Transmission lines: Permanent field repair of imperfections and damages.

(a) Each imperfection or damage that impairs the serviceability of pipe in a steel transmission line operating at or above 40 percent of SMYS must be-

(1) Removed by cutting out and replacing a cylindrical piece of pipe: or

(2) Repaired by a method that can permanently restore the serviceability of the pipe, as shown by reliable engineering tests and analyses.

(b) Operating pressure must be reduced to a safe level during repair operations.

6. In 192.717, paragraph (a)(l) and paragraph (a) (2) introductory text would be revised to read as follows:

§ 192.717 Transmission lines: Permanent field repair of leaks.

(a) * * *

(1) Remove the leak by cutting out and replacing a cylindrical piece of pipe.

(2) Install a full encirclement welded split sleeve of appropriate design, unless the transmission line:

* * * * *

PART 195—[AMENDED]

7. The authority citation for Part 195 continues to read as follows:

Authority: 49 U.S.C. 5103, 60102, 60104, 60108, 60109, 60118, and 49 CFR 1.53.

8. Section 195.416(f) would be revisec to read as follows:

§ 195.416 External corrosion control.

* * * * *

(f) Any pipe that is found to be generally corroded so that the remainin wall thickness is less than the minimun thickness required by the pipe specification tolerances must be replaced with coated pipe that meets th requirements of this part. However, generally corroded pipe need not be replaced if-

(1) The operating pressure is reduced to be commensurate with the limits on operating pressure specified in this subpart, based on the actual remaining wall thickness: or

(2) The pipe is repaired by a method that can permanently restore the serviceability of the pipe, as shown by reliable engineering tests and analyses.

* * * * *

Issued in Washington, D.C. on April 1, 1999.

Richard B. Felder,

Associate Administrator for Pipeline Safety.

(FR Doc. 99-8574 Filed 4-6-99; 8:45 am]

BILLING CODE 4910-60-P

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DEPARTMENT OF TRANSPORTATION

Research and Special Programs Administration

49 CFR Parts 192 and 195 16

[Docket No. RSPA–98–4733; Amdt. 192–88; 195–68]

RIN 2137–AD25

Pipeline Safety: Gas and Hazardous Liquid Pipeline Repair

AGENCY: Research and Special Programs Administration (RSPA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a safety performance standard for the repair of corroded or damaged steel pipe in gas or hazardous liquid pipelines. Because present safety standards specify particular methods of repair, operators must get approval from government regulators to use innovative repair technologies. The performance standard is likely to encourage technological innovations and reduce repair costs without reducing safety.

EFFECTIVE DATE: This final rule takes effect January 13, 2000.

FOR FURTHER INFORMATION CONTACT: L. M. Furrow at (202) 366–4559 or furrowl@rspa.dot.gov. You can read comments and other material in the docket at this internet web address: http://dms.dot.gov. General information about our pipeline safety program can be obtained at http://ops.dot.gov.

SUPPLEMENTARY INFORMATION:

Background

Listed below are safety standards in 49 CFR part 192 for gas transmission and distribution lines and 49 CFR part 195 for hazardous liquid pipelines that specify methods of repairing corrosion and other defects in metallic pipe.

Section	Pipe	Defect	Repair Method
§192.309(b)	Certain steel transmission lines or mains.	Dent of particular characteristic	Remove by cutting out length of pipe
§192.485(a)	Metallic transmission lines	Large area of general corrosion does not support maximum allowable operating pressure (MAOP).	Remove by cutting out length of pipe, unless operating pressure is reduced
§192.487(a)	Metallic distribution lines (except cast or ductile iron).	Large area of general corrosion does not support MAOP or has more than 70% wall loss.	Remove by cutting out length of pipe
§192.713	High-stress steel transmission lines.	Imperfection or damage impairs serviceability.	Remove by cutting out length of pipe, or install full-encirclement split sleeve
§192.717	Steel transmission lines	Leaking defect	Remove by cutting out length of pipe, install full-encirclement welded split sleeve, or apply other specified repair methods
§195.416(f)	Steel pipeline	Largearea of general corrosion reduces wall thickness below minimum in pipe specification.	Replace with coated pipe, unless operating pressure is reduced

Because these standards prescribe methods of repair rather than what the repair should accomplish, the standards lack flexibility. They do not allow operators to use new or more innovative repair technologies. They also discourage operators from developing new repair methods that may be more economical. In contrast, under less

restrictive standards in Parts 192 and 195, operators may and do use methods besides pipe replacement and split sleeves, such as composite pipe wraps, grinding, hot tapping, and weld deposition, to repair corroded or damaged pipe. For example, a gouge that impairs the serviceability of a steel gas transmission line not covered by § 192.713 may be repaired under § 192.703(b) by any method that returns the pipe to a safe condition.

In recent years, we and a few state pipeline safety agencies waived the requirements of §§ 192.485(a) and 192.713 so operators could use a new repair system called Clock Spring@ wrap to simplify and reduce the average cost of repairs (60 FR 10630; February 27, 1995). This system, which consists of a fiberglass/polyester composite material coiled with adhesive in layers over a filler, reinforces steel pipe that has certain non-leaking defects. According to tests and analyses done by the Gas Research Institute, when properly installed, the system permanently restores the pressure containing capability of the pipe (D.R. Stephens, Summary of Validation of Clock Spring for Permanent Repair of Pipeline Corrosion Defects, GRI–98/0227, Gas Research Institute, Chicago, Illinois, October 1998).

Notice of Proposed Rulemaking

Recognizing the need for flexibility in §§ 192.309(b), 192.485(a), 192.487(a), 192.713, and 195.416(f), we published a notice of proposed rulemaking (NPRM) to amend these rules to permit operators to use repair methods that meet a performance standard (64 FR 16882; April 7, 1999). The standard we proposed was that the repair method be able to "permanently restore the serviceability of the pipe," a result comparable to that expected from replacing damaged pipe or installing a full-encirclement split sleeve. We explained that such restoration would be permanent if the repair were expected to last as long as the pipe under normal operating and maintenance conditions.

For assurance that a repair method indeed meets the performance standard, we further proposed that the method must have undergone "reliable engineering tests and analyses." Although no guidelines for these tests and analyses were proposed, we said "the tests and analyses need only be what a reasonable and prudent professional engineer would consider adequate to demonstrate compliance with the performance standard."

Besides the performance standard, we also proposed to drop the priority that §§ 192.713 and 192.717 give to pipe replacement whenever it is feasible to take a damaged pipeline out of service. And we proposed to terminate the requirement in these sections that replacement pipe have "similar or greater design strength" than the pipe being replaced. We think this requirement is overly conservative, and the safety of replacement pipe is otherwise governed by the material, design, construction, and testing requirements of Part 192.

Discussion of Comments

We received comments from the following sources in response to the NPRM:

Trade association: American Gas Association

Interstate gas pipeline operators: Colorado Interstate Gas Company, CMS Energy Corporation, Duke Energy Corporation, Enron Gas Pipeline Group, Paiute Pipeline Company, and Southern Natural Gas Company

Gas distribution operators: Southwest Gas Corporation and Consumers Energy Company

Manufacturer: Clock Spring Company, L.P.

Engineering firm: Stress Engineering Services, Inc.

Engineering consultant: Foy Milton, PE

Of the 12 commenters, four (Consumers Energy Company, Paiute Pipeline Company, Southern Natural Gas Company, and Southwest Gas Corporation) supported the proposed rules without change; one (Foy Milton) opposed use of a performance standard for pipe repairs; one (American Gas Association) supported the proposals but suggested a minor editorial change, which is included in final § 192.717; and the remaining six commenters favored the proposals in general but suggested substantive changes. Our disposition of the lone opposing comment and those comments suggesting substantive changes is discussed under the following headings.

Specification vs. Performance

Asserting advantages of the existing specification-type standards (uniformity of application, ease of understanding, voluntary standards committee backing, and disallowance of unacceptable repair methods), Foy Milton urged us not to go forward with the proposed rule changes. While we agree that specification-type standards may be appropriate in some instances, they are not the standards of choice for mechanisms undergoing advancements in technology. Specification-type standards deny operators the flexibility to choose the most cost-effective technology to do a particular job, in this case repairing corroded or other damaged pipe. They also create a disincentive for operators to invest in the development of new technology. Moreover, properly crafted performance standards can bar the use of unacceptable technology. Therefore, we did not adopt this commenter's suggestion.

Clarity of Proposal

As discussed above, we proposed to widen operators' choices of repair methods by allowing pipe to be "repaired by a method that can permanently restore the serviceability of the pipe, as shown by reliable engineering tests and analyses." The Colorado Interstate Gas Company thought this wording could be misinterpreted to require tests and analyses of completed repairs. This commenter suggested we use the following alternative wording to emphasize that the repair method is to be tested and analyzed: "* * * using a method qualified by reliable engineering tests and analyses, each repair must permanently restore the serviceability of t h e p ipe."

After considering the matter, we think the syntax of the proposed requirement for tests and analyses could possibly cause the requirement to be misconstrued to apply to completed repairs rather than repair methods. Therefore, in the final rules, we revised the wording of the proposal as follows to better indicate the purpose of the tests and analyses: "repaired by a method that reliable engineering tests and analyses show can permanently restore the serviceability of the pipe." We did not adopt the commenter's suggested rewrite because we believe it would, perhaps inadvertently, regulate completed repairs in addition to repair methods, a result not intended by the proposal.

Test Criteria

The Clock Spring Company was concerned that operators' freedom of interpretation under the proposed rules might threaten the integrity of repairs made by non-traditional methods. This commenter suggested we augment the proposal by including minimum test criteria, such as long term strength, environmental compatibility, and dynamic forces, and require that testing be consistent with ASTM D2992–96, Standard Practice for Obtaining Hydrostatic or Pressure Design Basis for "Fiberglass" (Glass-Fiber-Reinforced Thermosetting-Resin) Pipe and Fittings. Alternatively, the company

recommended that we devise testing criteria based on the years of engineering experience in developing Clock Spring wrap. Similarly, Stress Engineering Services, Inc., a participant in proving the integrity of two composite repair methods, Clock Spring wrap and Armor Plate Pipe Wrap, thought guidelines for testing new composite repair methods were needed to properly assess critical technical issues. Enclosed with this comment was a set of 15 guidelines for testing composite materials.

In sharp contrast, the Enron Gas Pipeline Group said the proposed testing and analyses requirement is unnecessary. As support for this position, Enron cited performance standards, such as § 195.422, as having satisfactorily controlled safety problems without requiring tests and analyses to demonstrate compliance. Enron also contended that performance standards implicitly require operators to prove that methods used to achieve compliance will indeed do so, and that requiring tests and analyses would hinder operators' freedom to use innovative technologies.

Our position, like the proposal, lies between these two different views. We are not persuaded that the proposed testing requirement needs strengthening. By and large, the pipeline industry's repair practices have been very conservative and slow to incorporate non-traditional methods. For example, the industry did not use Clock Spring or Armor Plate until after ample hard evidence was produced to prove the lasting integrity of pipe repaired by these methods. And the quality of these repairs, a great many of which have been done without the need for a waiver of Part 192 or 195 standards, is shown by the lack of reports of incidents or near-incidents attributable to faulty repairs. We think the industry is unlikely to take any less conservative approach to new repair technologies that may become available for use in the future.

At the same time, we still believe that a requirement for tests and analyses is needed. Given that pipe replacement and full-encirclement split sleeves are time-tested methods of pipe repair, a requirement for reliable engineering tests and analyses will provide public confidence in the safety of innovative methods intended as alternatives to these time-tested methods. The lack of similar requirements elsewhere in the regulations is not sufficient reason to drop a proposed requirement intended to assure the integrity of innovative repair alternatives. Enron did not explain why the proposed requirement, which is consistent with current industry practices, would hinder future innovation. Although we agree with Enron that without such a requirement operators would still have to demonstrate the validity of their compliance efforts, the nature of such demonstrations would be discretionary and could have less probative value than reliable engineering tests and analyses.

Furthermore, a majority of commenters apparently support our position. Except for Foy Milton, who advised us not to change the existing rules, seven of the remaining eleven commenters supported the proposed rules in general and expressed no specific opinion on the proposed requirement for reliable engineering tests and analyses. Also, as discussed below, our two pipeline safety advisory committees approved the proposed rules without recommending any change to this requirement.

In the NPRM, we described the "reliable engineering tests and analyses" that would be necessary to show that a particular repair method will perform as required. We said the tests and analyses need only be what a reasonable and prudent professional engineer would consider adequate to demonstrate compliance with the performance standard. We recognize that licensed professional engineers may differ on what information is necessary to demonstrate the performance of particular technologies in particular circumstances. But the experience of Clock Spring and Armor Plate wraps can serve as a model in determining the technical issues to resolve and the relevant substantiating tests and analyses. We will look to this experience to guide our inspections for compliance with the final rule. In this regard, we would welcome opportunities to preview new pipeline repair technologies in the development stage to avert possible compliance issues later on when the technologies are marketed.

With the growth of repair technology, we expect that voluntary efforts will respond to any possible demand for uniform testing criteria. As mentioned above, Stress Engineering has already moved in this direction for certain composite wraps. And other firms and organizations may develop additional criteria for different repair techniques. Such criteria could be incorporated in voluntary standards, such as ASME B31.4 or B31.8, or in publications such as GPTC/ANSI Z380.1, Guide for Gas Transmission and Distribution Piping Systems. We now use these documents as a guide to acceptable practices in judging compliance with many performance standards in Parts 192 and 195.

Repair by Replacement

Duke Energy, CMS Energy, and Enron suggested that because pipe replacement is one of several methods that could be used under proposed §§ 192.485(a), 192.487(a), and 192.713(a) to repair corroded or damaged pipe, these rules would be clearer if they referred only to repair rather than to both replacement and repair. Although the premise of this comment is correct, the proposed rules distinguished replacement from other methods of repair because throughout Parts 192 and 195 replacement is distinguished from other methods of repair. This distinction is significant because pipe replacement triggers safety requirements, such as those involving pipe design, construction, and pressure testing, that do not apply to other methods of pipe repair. Giving special emphasis to replacement in repair rules highlights the need for replacement pipe to meet these additional safety requirements. So we do not think the commenters' suggestion would necessarily contribute to overall clarity.

Corrosion Repairs

Duke Energy, CMS Energy, and Enron suggested that including the proposed performance standard under §§ 192.485(a) and 192.487(a) was redundant, because corrosion repairs would be subject to the same standard under proposed § 192.713(a). But this observation is only partially correct, because § 192.713(a) applies only to certain high-stress steel transmission lines, while §§ 192.485(a) and 192.487(a) apply to all metallic transmission or distribution lines. If the proposed performance standard were not included under §§ 192.485(a) and 192.487(a), corrosion repairs on pipelines not covered by § 192.713(a) would not be subject to the proposed standard. So we have left the proposed performance standard in final §§ 192.485(a) and 192.487(a).

Leak Repairs

Duke Energy, CMS Energy, and Enron further suggested that the proposed performance standard under § 192.713(a) for non-leaking defects should apply to leaking defects as well. This change, they said, would be consistent with the purpose of the rulemaking and allow the removal of § 192.717, which requires specific repair methods for transmission line leaks.

We did not propose to apply the proposed performance standard to methods of repairing pipe leaks because

the impetus for this rulemaking, Clock Spring wrap, is not designed to repair leaks. Still, as explained in the NPRM, the purpose of this rulemaking is to make the pipe repair regulations more flexible so that operators have incentives to innovate and greater freedom in selecting repair methods. And, as the commenters indicated, achieving this goal does not depend on whether the defect to be repaired is leaking nor on the availability of a non-traditional leak repair method that qualifies under the proposed performance standard. In fact, adopting the proposed performance standard to authorize alternative leak repair methods is likely to foster the development of new methods of leak repair. Therefore, since the proposed performance standard is suitable for both non-leaking and leaking defects and applying the standard to the repair of leaking defects furthers the purpose of the NPRM, we have added the proposed performance standard to § 192.717 to cover the permanent repair of leaks on transmission lines. As discussed below, our gas pipeline safety advisory committee supported this action.

Contrary to the commenters' suggestion, however, merely extending § 192.713 to cover leaking defects would not enable removal of § 192.717. Section 192.717 is broader in scope; it applies to all steel transmission lines, not just those that come under § 192.713.

Reducing Operating Pressure

Duke Energy, CMS Energy, and Enron asked that we amend § 192.713 to state that operators may reduce the maximum allowable operating pressure of defective pipe to a safe level instead of permanently repairing the pipe. Section 192.485 allows this alternative on corroded transmission line pipe where a safe operating pressure can be calculated under accepted engineering guidelines based on the remaining strength of the corroded pipe (e.g., ASME B31.G–1991). After the MAOP is reduced to a safe level, the corrosion no longer impairs the serviceability of the pipe, making the repair requirement of § 192.713 inapplicable. But we are not aware of comparable engineering guidelines for determining the safe operating pressure of steel pipe that has defects other than corrosion, such as scratches, gouges, or dents. Although operators may reduce operating pressure as a temporary protective measure under § 192.711, in the absence of such guidelines, there is no accepted way to judge what amount of pressure reduction will restore the serviceability of the defective pipe and make removal or repair unnecessary. Therefore, we have not included the suggested amendment in final § 192.713.

Both the existing and proposed § 192.713 call for a reduction in operating pressure to a safe level during repairs. But Duke Energy, CMS Energy, and Enron pointed out that such a reduction is unnecessary if the operating pressure is already at a level safe for repairs. These commenters suggested that the rule merely provide that the operating pressure be at a safe level during repairs. We believe this interpretation is a reasonable application of the current rule, so we have included the suggested change in the final rule.

Dents Found During Construction

Existing § 192.309(b) requires removal of unsafe dents found during the construction of certain transmission lines and mains. We proposed to allow operators to repair these dents with methods that qualify under the performance standard discussed above. But Enron said the existing, more restrictive requirement is appropriate for pipeline construction and saw no need for change. Alone among the commenters, it said the existing removal requirement is reasonable because, during construction, the dented pipe is accessible and not yet in service, and machinery and labor are on site or readily available. We are not swayed by this reasoning, however. Although we agree the burden of removal may be lessened somewhat by the circumstances of construction, we find it more reasonable to adopt a regulation that permits remedial options that can provide equivalent safety at possibly less cost. Final § 192.309(b) is, therefore, adopted as proposed.

Advisory Committee Consideration

We presented the NPRM for consideration by the Technical Pipeline Safety Standards Committee (TPSSC) and the Technical Hazardous Liquid Pipeline Safety Standards Committee (THLPSSC) at a meeting in Washington, DC on May 4, 1999. The TPSSC is RSPA's statutory advisory committee for gas pipeline safety and the THLPSSC is RSPA's statutory advisory committee for hazardous liquid pipeline safety. Each committee has 15 members, representing industry, government, and the public, who are qualified to consider the technical feasibility, reasonableness, cost-effectiveness, and practicability of proposed pipeline safety standards. Both committees voted unanimously to approve the proposed rules and to approve the associated risk assessment information contained in the Regulatory Evaluation, which is discussed below. A transcript and report of each committee's consideration of the NPRM is available in the docket.

During the May 4th meeting, one advisory committee member questioned the appropriateness of the term "generally corroded" in the first sentence of § 195.416(f). This sentence reads: "Any pipe that is found to be generally corroded so that the remaining wall thickness is less than the minimum thickness required by the pipe specification tolerances must be replaced with coated pipe that meets the requirements of this part." The member suggested that revising this requirement to refer to pipe that has "general corrosion" would clarify the meaning. In considering this suggestion, we found that the terms "generally corroded" and "general corrosion" are used in §§ 192.485(a), 192.487(a), 195.416(f), and 195.418(d) to refer to areas of corrosion other than corrosion pitting. Indeed, the two terms are used interchangeably in § 192.487(a). Given the common intended meaning of both terms, which our experience indicates is universally understood and applied in the pipeline industry, and the lack of any compliance difficulty caused by the term "generally corroded," we decided not to adopt the member's suggested change to § 195.416(f).

As discussed above under Leak Repairs, Duke Energy, CMS Energy, and Enron suggested that the proposed performance standard is suitable for leaking as well as non-leaking defects. To help us assess this comment, at the November 4, 1999, TPSSC meeting in Washington, DC, we asked the TPSSC for advice on whether we should add the performance standard to § 192.717, which prescribes repair methods for leaks on gas transmission lines. The TPSSC voted, with one abstention, to support including the performance standard in § 192.717. A transcript and report of the TPSSC's consideration of this matter is available in the docket.

Regulatory Analyses and Notices

A. Executive Order 12866 and DOT Regulatory Policies and Procedures

DOT does not consider this rulemaking to be a significant regulatory action under Section 3(f) of Executive Order 12866 (58 FR 51735; October 4, 1993), and the Office of Management and Budget (OMB) has not reviewed this rulemaking document. Also, DOT does not consider this rulemaking significant under its regulatory policies and procedures (44 FR 11034; February 26, 1979).

The final rules provide operators flexibility to choose the most cost-effective method of repairing pipe, while maintaining public safety. Thus, the rules will not add costs to industry, government, or the public. In fact, the rules should reduce operators' costs of transporting oil and gas, and perhaps the price consumers pay for these products. In comments on a proposed waiver to the Panhandle Eastern Corporation (58 FR 13823; March 15, 1993), the American Gas Association estimated that industry could save $6.5 million a year by using composite wrap to repair corroded or damaged pipe. Although part of the gas pipeline industry is already realizing these savings because of the Panhandle and other waivers, the final rules will create a similar opportunity for savings by the entire oil and gas pipeline industry. And still more savings could possibly result from the use of innovative technologies not covered by the waivers. In fact, this rulemaking fosters the use and development of new repair technologies without additional cost to the regulated industry. A Final Regulatory Evaluation document is available for review in the docket.

B. Regulatory Flexibility Act

This rulemaking will not impose additional requirements on pipeline operators, including small entities that operate regulated pipelines. Rather, the rules offer operators the opportunity to use more economical methods of repairing corroded or damaged pipe. Thus, this rulemaking may reduce costs to operators, including small entities. Based on the facts available about the expected impact of this rulemaking, I certify, under section 605 of the Regulatory Flexibility Act (5 U.S.C. 605), that this rulemaking will not have a significant economic impact on a substantial number of small entities.

C. Executive Order 12612

This rulemaking will not have substantial direct effects on states, on the relationship between the Federal Government and the states, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612 (52 FR 41685; October 30, 1987), RSPA has determined that the final rules do not have sufficient federalism implications to warrant preparation of a Federalism Assessment.

D. Executive Order 13084

The final rules have been analyzed in accordance with the principles and criteria contained in Executive Order 13084, "Consultation and Coordination with Indian Tribal Governments." Because the rules will not significantly or uniquely affect Indian tribal governments, the funding and consultation requirements of Executive Order 13084 do not apply.

E. Paperwork Reduction Act of 1995

This rulemaking contains no information collection that is subject to review by OMB under the Paperwork Reduction Act of 1995.

F. Unfunded Mandates Reform Act of 1995

This rulemaking will not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It will not result in costs of $100 million or more to either state, local, or tribal governments, in the aggregate, or to the private sector, and is the least burdensome alternative that achieves the objective of the rulemaking.

G. National Environmental Policy Act

We have analyzed the final rules for purposes of the National Environmental Policy Act (42 U.S.C. 4321 *et seq.).* We prepared an Environmental Assessment (64 FR 16884; April 7, 1999) in which we concluded that the proposed action would not significantly affect the human environment because alternative repair methods would have to be as reliable as those the pipeline safety regulations currently allow. Thus any alternative method would provide the same level of pipe protection that the current repair methods provide. Based on this Environmental Assessment and no receipt of information showing otherwise, we have prepared a Finding of No Significant Impact (FONSI). This FONSI has been made part of the docket.

H. Impact on Business Processes and Computer Systems

Many computers that use two digits to keep track of dates will, on January 1, 2000, recognize "double zero" not as 2000 but as 1900. This glitch, the Year 2000 Problem, could cause computers to stop running or to start generating erroneous data. The Year 2000 problem poses a threat to the global economy in which Americans live and work. With the help of the President's Council on Year 2000 Conversion, federal agencies are reaching out to increase awareness of the problem and to offer support. We do not want to impose new requirements that would mandate business process changes when the resources necessary to implement those requirements would otherwise be applied to the Year 2000 Problem.

This rulemaking does not require business process changes or require modifications to computer systems. Because this rulemaking does not affect the ability of organizations to respond to the Year 2000 problem, we have not delayed the effectiveness of the final rules.

List of Subjects

49 CFR Part 192

Natural gas, Pipeline safety, Reporting and recordkeeping requirements.

49 CFR Part 195

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

In consideration of the foregoing, 49 CFR parts 192 and 195 are amended as follows:

PART 192—[AMENDED]

1. The authority citation for part 192 continues to read as follows:

Authority: 49 U.S.C. 5103, 60102, 60104, 60108, 60109, 60110, 60113, **and** 60118; and 49 CFR 1.53.

2. In § 192.309, paragraph (b) introductory text is revised to read as follows:

§ 192.309 Repair of steel pipe.

* * * * *

(b) Each of the following dents must be removed from steel pipe to be operated at a pressure that produces a hoop stress of 20 percent, or more, of SMYS, unless the dent is repaired by a method that reliable engineering tests and analyses show can permanently restore the serviceability of the pipe:

* * * * *

3. Section 192.485(a) is revised to read as follows:

§ 192.485 Remedial measures: Transmission lines.

(a) ***General corrosion.*** Each segment of transmission line with general corrosion and with a remaining wall thickness less than that required for the MAOP of the pipeline must be replaced or the operating pressure reduced commensurate with the strength of the pipe based on actual remaining wall thickness. However, corroded pipe may be repaired by a method that reliable engineering tests and analyses show can permanently restore the serviceability of the pipe. Corrosion pitting so closely grouped as to affect the overall strength of the pipe is considered general corrosion for the purpose of this paragraph.

* * * * *

4. Section 192.487(a) is revised to read as follows:

§ 192.487 Remedial measures: Distribution lines other than cast iron or ductile iron lines.

(a) ***General corrosion.*** Except for cast iron or ductile iron pipe, each segment of generally corroded distribution line pipe with a remaining wall thickness less than that required for the MAOP of the pipeline, or a remaining wall thickness less than 30 percent of the nominal wall thickness, must be replaced. However, corroded pipe may be repaired by a method that reliable engineering tests and analyses show can permanently restore the serviceability of the pipe. Corrosion pitting so closely grouped as to affect the overall strength of the pipe is considered general corrosion for the purpose of this paragraph.

* * *

§ 192.711 [Amended]

5. In § 192.711(b), remove "§ 192.717(a)(3)" and add "§ 192.717(b)(3)" in its place.

6. Section 192.713 is revised to read as follows:

§ 192.713 Transmission lines: Permanent field repair of imperfections and damages.

(a) Each imperfection or damage that impairs the serviceability of pipe in a steel transmission line operating at or above 40 percent of SMYS must be-

(1) Removed by cutting out and replacing a cylindrical piece of pipe; or

(2) Repaired by a method that reliable engineering tests and analyses show can permanently restore the serviceability of the pipe.

(b) Operating pressure must be at a safe level during repair operations.

7. Section 192.717 is revised to read as follows:

§ 192.717 Transmission lines: Permanent field repair of leaks.

Each permanent field repair of a leak on a transmission line must be made by -

(a) Removing the leak by cutting out and replacing a cylindrical piece of pipe; or

(b) Repairing the leak by one of the following methods:

(1) Install a full encirclement welded split sleeve of appropriate design, unless the transmission line is joined by mechanical couplings and operates at less than 40 percent of SMYS.

(2) If the leak is due to a corrosion pit, install a properly designed bolt-on-leak clamp.

(3) If the leak is due to a corrosion pit and on pipe of not more than 40,000 psi (267 Mpa) SMYS, fillet weld over the pitted area a steel plate patch with rounded corners, of the same or greater thickness than the pipe, and not more than one-half of the diameter of the pipe in size.

(4) If the leak is on a submerged offshore pipeline or submerged pipeline in inland navigable waters, mechanically apply a full encirclement split sleeve of appropriate design.

(5) Apply a method that reliable engineering tests and analyses show can permanently restore the serviceability of the pipe.

PART 195—[AMENDED]

8. The authority citation for part 195 continues to read as follows:

Authority: 49 U.S.C. 5103, 60102, 60104, 60108, 60109, 60118; and 49 CFR 1.53.

9. Section 195.416(f) is revised to read as follows:

§ 195.416 External corrosion control.

* * * * *

(f) Any pipe that is found to be generally corroded so that the remaining wall thickness is less than the minimum thickness required by the pipe specification tolerances must be replaced with coated pipe that meets the requirements of this part. However, generally corroded pipe need not be replaced if—

(1) The operating pressure is reduced to be commensurate with the limits on operating pressure specified in this subpart, based on the actual remaining wall thickness; or

(2) The pipe is repaired by a method that reliable engineering tests and analyses show can permanently restore the serviceability of the pipe.

* * * * *

Issued in Washington, DC on December 8, 1999.

Kelley S. Coyner,

Administrator.

[FR Doc. 99–32274 Filed 12–13–99; 8:45 am]

BILLING CODE 4910–60–P