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MAY 3 1983 9: 10 m Revisor of Statutes Bugeau-3829

CERTIFICATE

STATE O		WISCONSIN)	
)	SS
PUBLIC	S	ERVICE	COMMISSION)	

TO ALL WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Jacqueline K. Reynolds, Secretary of the Public Service Commission of Wisconsin, and custodian of the official records of said commission, do hereby certify that the annexed order creating Wis. Adm. Code section PSC 192.375(c), amendment of secs. 192.7(b); 192.7(c); table of subpart A, General, of part 192; 192.145(a); 192.163(e); 192.225(b)(1); 192.225(b)(2); 192.227(b)(1); 192.227(b)(2); 192.237(a); 192.239(a); 192.239(b); 192.241(c); 192.557(d)(1); 192.557(d)(3) and repeal and recreation of sec. 135.09(2) and parts 192.113, 192.117, 192.225(a), 192.277(a), 192.229(c), Appendix A and Appendix BI of ch. 135, was duly approved and adopted by this commission on April 28, 1983.

I further certify that said copy has been compared by me with the original on file in this commission and that the same is a true copy thereof, and of the whole of such original.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the commission at the Hill Farms State Office Building, in the City of Madison this 29th day of April. 1983.

this 29th day of April, 1983.

Acqueline K. Reynolds
Secretary of the Public Service
Commission of Wisconsin

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DATE MAILED APR 29 1983

BEFORE THE

PUBLIC SERVICE COMMISSION OF WISCONSIN

Rules and Regulations Governing)	
the Construction, Operation and)	
Maintenance of Facilities for)	2-U-3829
Production, Transmission,)	
Distribution and Utilization)	
of Gas)	

ORDER OF THE PUBLIC SERVICE COMMISSION AMENDING RULES

Relating to amendment, repeal, recreation and creation of rules in ch. PSC 135, governing gas safety: Amendment of secs. 192.7(b); 192.7(c); table of Subpart A, General, of part 192; 192.145(a); 192.163(e); 192.225(b)(1); 192.225(b)(2); 192.227(b)(1); 192.227(b)(2); 192.237(a); 192.239(a); 192.239(b); 192.241(c); 192.557(d)(1); 192.557(d)(3). Creation of sec. 192.375(c). Repeal of sec. 192.17. Repeal and recreation of sec. 135.09(2) and parts 192.113, 192.117, 192.225(a), 192.227(a), 192.229(c), Appendix A and Appendix BI of ch. 135.

ANALYSIS PREPARED BY THE PUBLIC SERVICE COMMISSION OF WISCONSIN

On February 26, 1982, the Public Service Commission held hearing into amendment of various provisions of ch. 135, Wis. Adm. Code. Chapter PSC 135 incorporates, with some changes, part 192, 49 Code of Federal Regulations: Minimum Safety Standards for Pipeline Facilities and Transportation of Gas Established by the Federal Department of Transportation Office of Pipeline Safety Operations. With one exception, the proposed

amendments make no substantive changes in these safety rules, but merely update them with more recent editions of standards and tests incorporated in the rules. The only substantive change is section 21, infra, which imposes a state requirement concerning the installation of plastic service lines which are not encased. The new standards were recently approved by the attorney general and revisor of statutes, as required by sec. 227.025, Stats. The rules are authorized by sec. 196.19, Stats.

PROPOSED RULES AND STATUTORY AUTHORITY

Pursuant to authority vested in the Public Service

Commission by sec. 196.16, Stats., the commission adopts rules as follow:

SECTION 1. The table of Subpart A, General, of part 192 is amended by removing the reference to sec. 192.17.

SECTION 2. Sec. 135.09(2), Wis. Adm. Code is repealed and recreated to read:

All gas utilities shall file with the commission a copy of the operating and maintenance plans which are required by section PSC 135.09 -- 192.603. Each change in such plans shall be filed within 20 days after the change is made.

SECTION 3. Sec. 192.7(b) of PSC 135 is amended to read:

All incorporated documents are available for inspection in the Office-of-Pipeline-Safety,-Room-107, 400-Sixth-Street,-S.W.,-Washington,-D.C., and at the Office of the Federal Register, 1100 L. Street, N.W., Washington, D.C. These materials have been approved for incorporation by reference by the Director of the Federal Register. In addition, the documents are available at the addresses provided in Appendix A to this part.

SECTION 4. Sec. 192.7(c) of PSC 135 is amended to

read:

(c) The full titles for the publications incorporated by reference in this part are provided in Appendix A to this part. Numbers in parentheses indicate applicable editions. Earlier editions of documents listed in previous editions of Appendix A may be used for materials and components manufactured, designed, or installed in accordance with those earlier editions at the time they were listed. The user must refer to the appropriate previous edition of 49 CFR for a listing of the earlier listed editions.

SECTION 5. Sec. 192.17 of PSC 135 is repealed.

SECTION 6. Sec. 192.113 of PSC 135 is repealed and recreated to read:

192.113 LONGITUDINAL JOINT FACTOR (E) FOR STEEL PIPE.

The longitudinal joint factor to be used in the design formula in s. 192.105 is determined in accordance with the following table:

Specification	Pipe class	tudinal factor (E)
ASTM A 53	Seamless Electric resistance welded Furnace butt welded	 1.00 1.00 .60
ASTM A 106	Seamless	1.00
ASTM A 134	Electric fusion arc welded	.80
ASTM A 135	Electric resistance welded	 1.00
ASTM A 139	Electric fusion arc welded	 .80
ASTM A 211	Spiral welded steel pipe	 . 80
ASTM A 333	Seamless	 1.00
	Electric resistance welded	 1.00
ASTM A 381	Double submerged arc welded.	 1.00
ASTM A 671	Electric-fusion-welded	1.00
ASTM A 672	Electric-fusion-welded	1.00
ASTM A 691	Electric-fusion-welded	 1.00

Specification Pipe class Longitudinal joint factor (E)
API 5 L Seamless 1.00	
Electric resistance welded 1.00	
Electric flash welded 1.00	
Submerged arc welded 1.00	
Furnace butt welded	
API 5 LX Seamless 1.00	
Electric resistance welded 1.00	
Electric flash welded 1.00	
Submerged arc welded 1.00	
API 5 LS Electric resistance welded 1.00	
Submerged arc welded 1.00	
Other Pipe over 4 inches	
Other Pipe 4 inches or less	

If the type of longitudinal joint cannot be determined, the joint factor to be used must not exceed that designated for "Other."

SECTION 7. Sec. 192.117 of PSC 135 is repealed and recreated to read:

192.117 DESIGN OF CAST IRON PIPE.

Cast iron pipe must be designed in accordance with ANSI C101-67.

SECTION 8. Sec. 192.145(a) of PSC 135 is amended to

read:

Each valve must meet the minimum requirements, or the equivalent, of API 6A, API 6D, MSS SP-70, MSS SP-71, or MSS SP-78. except-that-a-valve-designed before-July-1;-1976;-may-meet-the-minimum-require-ments-of-MSS-SP-52. A value may not be used under operating conditions that exceed the applicable pressure-temperature ratings contained in those standards.

SECTION 9. Sec. 192.163(e) of PSC 135 is amended to

read:

Electrical facilities. Electrical equipment and wiring installed in compressor stations must conform to the National Electric Code, ANS-Standard 61 NFPA-70 (ANSI), so far as that code is applicable.

SECTION 10. Sec. 192.225(a) of PSC 135 is repealed and recreated to read:

192.225 QUALIFICATION OF WELDING PROCEDURES.

(a) Each welding procedure must be qualified under Section IX of the ASME Boiler and Pressure Vessel Code or Section 2 of API Standard 1104, whichever is appropriate to the function of the weld, except that a welding procedure qualified under an earlier edition previously listed in Appendix A may continue to be used but may not be requalified under the earlier edition.

SECTION 11. Sec. PSC 192.225(b)(1) of PSC 135 is amended to read:

Carbon steels that have a carbon content of 0.32 percent (ladle heat analysis) or less.

SECTION 12. Sec. PSC 192.225(b)(2) of PSC 135 is amended to read:

Carbon steels that have a carbon equivalent (C + 1/4 Mn) of 0.65 percent (ladle heat analysis) or less.

SECTION 13. Sec. PSC 192.227(a) of PSC 135 is repealed and recreated to read:

192.227 QUALIFICATION OF WELDERS.

(a) Except as provided in paragraph (c) of this section each welder shall be qualified in accordance with Section IX of the ASME Boiler and Pressure Vessel Code or Section 3 of API Standard 1104. However, a welder qualified under an earlier edition previously listed in Appendix A may weld but may not requalify under that earlier edition.

SECTION 14. Sec. PSC 192.227(b)(1) of PSC 135 is amended to read:

Carbon steels that have a carbon content of 0.32 percent (ladle heat analysis) or less.

SECTION 15. Sec. PSC 192.227(b)(2) of PSC 135 is amended to read:

Carbon steels that have a carbon equivalent (C + 1/4 Mn) of 0.65 percent (ladle heat analysis) or less.

SECTION 16. Sec. PSC 192.229(c) of PSC 135 is repealed and recreated to read:

A welder qualified under s. 192.227(a) may not weld unless within the preceding 6 calendar months the welder has had one weld tested and found acceptable under Section 3 or 6 of API Standard 1104, except that a welder qualified under an earlier edition previously listed in Appendix A may weld but may not requalify under that earlier edition.

SECTION 17. Sec. PSC 192.237(a) of PSC 135 is amended

to read:

Carbon steel that has a carbon content in excess of 0.32 percent (ladle heat analysis) or a carbon equivalent (C + 1/4 Mn) of 0.65 percent (ladle-heat analysis) must be preheated for welding.

SECTION 18. Sec. 192.239(a) of PSC 135 is amended to

read:

Except as provided in paragraph (f) of this section, each weld on carbon steel that has a carbon content in excess of 0.32 percent ($\frac{1}{4}$ Mn) in excess of 0.65 percent ($\frac{1}{4}$ Median equivalent (C + $\frac{1}{4}$ Mn) in excess of 0.65 percent ($\frac{1}{4}$ median equivalent analysis) must be stress relieved as prescribed in Section VIII of the ASME Boiler and Pressure Vessel Code.

SECTION 19. Sec. 192.239(b) of PSC 135 is amended to

read:

Except as provided in paragraph (f) of this section, each weld on carbon steel that has a carbon content of less than 0.32 percent ($\frac{1}{4}$ degree analysis) or a carbon equivalent (C + $\frac{1}{4}$ Mn) of less than 0.65 percent ($\frac{1}{4}$ degree analysis) must be thermally stress relieved when conditions exist which cool the weld at a rate detrimental to the quality of the weld.

SECTION 20. Sec. PSC 192.241(c) of PSC 135 is amended

to read:

The acceptability of a weld that is nondestructively tested or visually inspected is determined according to the standards in section 6 of the-1973-edition-of API-Standard-1104.--However,-the-standards-in-subsection 69-for-depth-of-undercutting-adjacent-to-the-root bead-apply-only-if API Standard 1104.

- (1)-That-depth-is-visually-determined-by-use-of-a depth-measuring-device-on-all-undercutting-along-the entire-circumstance-of-the-weld;-and
- (2)-Visual-determination-of-internal-undereutting is-made-in-all-pipe-of-the-same-diameter-in-a-pipeline, except-where-impractical-at-tie-in-welds.

SECTION 21. Sec. 192.375(c) of PSC 135 is created to

read:

SECTION 22. Sec. 192.557(d)(1) of PSC 135 is amended

to read:

If the original laying conditions cannot be ascertained, the operator shall assume, when applying the design formulas of ANSI A21-1 C101-67, that cast iron pipe was supported on blocks with tamped backfill and, when applying the design formulas of ANSI A21.50, that ductile iron pipe was laid without blocks with tamped backfill.

SECTION 23. The note in Sec. 192.557(d)(3) of PSC 135 is amended to read:

Note -- The nominal wall thickness of the cast iron is the standard thickness listed in table 10 or table 11, as applicable, of ANSI A21.1 C101-67 nearest the value obtained under this subparagraph. The nominal wall thickness of ductile iron pipe is the standard thickness listed in table 6 of ANSI A21.50 nearest the value obtained under this subparagraph.

SECTION 24. Appendix A to part 192 of PSC 135 is repealed and recreated to read:

Appendix A - Incorporated by Reference

- I. List of organizations and addresses.
- A. American National Standards Institute (ANSI), 1430 Broadway, New York, N.Y. 10018.
- B. American Petroleum Institute (API), 1801 K Street N.W., Washington, D.C. 20006 or 300 Corrigan Tower Building, Dallas, Tex. 75201.
- C. The American Society of Mechanical Engineers (ASME), United Engineering Center, 345 East 47th Street, New York, N.Y. 10017.
- D. American Society for Testing and Materials (ASTM), 1916 Race Street, Philadelphia, PA. 19103.
- E. Manufacturers Standardization Society of the Valve and Fittings Industry (MSS), 5203 Leesburg Pike, Suite 502, Falls Church, Va. 22041.
- F. National Fire Protection Association (NFPA), 470 Atlantic Avenue, Boston, Massachusetts 02110.
- II. Documents incorporated by reference. Numbers in parentheses indicate applicable editions.
- A. American Petroleum Institute:
- (1) API Specification 5A "API Specification for Casing, Tubing, and Drill Pipe" (1979).

- (2) API Specification 6A "API Specification for Wellhead Equipment" (1979).
- (3) API Specification 6D "API Specification for Pipeline Valves" (1977).
- (4) API Specification 5L "API Specification for Line Pipe" (1980).
- (5) API Specification 5LS "API Specification for Spiral-Weld Line Pipe" (1980).
- (6) API Specification 5LX "API Specification for High-Test Line Pipe" (1980).
- (7) API Recommended Practice 5LI "API Recommended Practice for Railroad Transportation of Line Pipe" (1972).
- (8) API Standard 1104 "Standard for Welding Pipelines and Related Facilities" (1980).
- B. The American Society for Testing and Materials:
- (1) ASTM Specification A53 "Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless" (A53-79).
- (2) ASTM Specification Al06 "Standard Specification for Seamless Carbon Steel Pipe for High-Temperature Service" (Al06-79b).
- (3) ASTM Specification A134 "Standard Specification for Electric-Fusion (ARC)-Welded Steel Plate Pipe, Sizes 16 in. and over" (A134-74).
- (4) ASTM Specification Al35 "Standard Specification for Electric-Resistance-Welded Steel Pipe" (Al35-79).
- (5) ASTM Specification Al39 "Standard Specification for Electric-Fusion (Arc)-Welded Steel Pipe (Sizes 4 in. and over)" (Al39-74).
- (6) ASTM Specification A671 "Electric-Fusion-Welded Steel Pipe for Atmospheric and Lower Temperatures" (A671-77).
- (7) ASTM Specification A672 "Electric-Fusion-Welded Steel Pipe for High-Pressure Service at Moderate Temperatures" (A672-79).

- (8) ASTM Specification A691 "Carbon and Alloy Steel Pipe, Electric-Fusion-Welded for High-Pressure Service at High Temperatures" (A691-79).
- (9) ASTM Specification A211 "Standard Specification for Spiral-Welded Steel or Iron Pipe" (A211-75).
- (10) ASTM Specification A333 "Standard Specification for Seamless and Welded Steel Pipe for Low Temperature Service" (A333-79).
- (11) ASTM Specification A372 "Standard Specification for Carbon and Alloy Steel Forgings for Thin-Walled Pressure Vessels" (A372-78).
- (12) ASTM Specification A377 "Standard Specifications for Grey Iron and Ductile Iron Pressure Pipe" (A377-79).
- (13) ASTM Specification A381 "Standard Specification for Metal-Arc-Welded Steel Pipe for use with High-Pressure Transmission Systems" (A381-79).
- (14) ASTM Specification A539 "Standard Specification for Electric Resistance-Welded Coiled Steel Tubing for Gas and Fuel Oil Lines" (A539-79).
- (15) ASTM Specification B42 "Standard Specification for Seamless Copper Pipe, Standard Sizes" (B42-80).
- (16) ASTM Specification B68 "Standard Specification for Seamless Copper Tube, Bright Annealed" (B68-80).
- (17) ASTM Specification B75 "Standard Specification for Seamless Copper Tube" (B75-80).
- (18) ASTM Specification B88 "Standard Specification for Seamless Copper Water Tube" (B88-80).
- (19) ASTM Specification B251 "Standard Specification for General Requirements for Wrought Seamless Copper and Copper-Alloy Tube" (B251-76).
- (20) ASTM Specification D638 "Standard Test Method for Tensile Properties of Plastic" (D638-77a).
- (21) ASTM Specification D2513 "Standard Specification for Thermoplastic Gas Pressure Pipe, Tubing, and Fittings" (D2513-78ES).

- (22) ASTM Specification D2517 "Standard Specification for Reinforced Epoxy Resin Gas Pressure Pipe and Fittings" (D2517-73) (Reapproved 1979).
- C. The American National Standards Institute, Inc.:
- (1) ANSI A21.11 "Rubber-Gasket Joints for Ductile-Iron, and Grey Iron Pressure Pipe and Fittings" (A21.11-1979).
- (2) ANSI A21.50 "Thickness Design of Ductile-Iron Pipe" (1976).
- (3) ANSI A21.52 "Ductile-Iron Pipe, Centrifugally Cast, in Metal Molds or Sand-Lined Molds for Gas" (1976).
- (4) ANSI B16.1 "Cast-Iron Pipe Flanges and Flanged Fittings" (1975).
- (5) ANSI B16.5 "Steel Pipe Flanges and Flanged Fittings" (1977).
- (6) ANSI B16.24 "Bronze Pipe Flanges and Flanged Fitting" (1979).
- (7) ANSI B36.10 "Wrought Steel and Wrought Iron Pipe" (1979).
- (8) ANSI C101-67 "Thickness Design of Cast-Iron Pipe" (C101-67-1977).
- D. The American Society of Mechanical Engineers:
- (1) ASME Boiler and Pressure Vessel Code, Section VIII "Pressure Vessels Division 1" (1977).
- (2) ASME Boiler and Pressure Vessel Code, Section IX "Welding Qualifications" (1977).
- E. Manufacturer's Standardization Society of the Valve and Fittings Industry:
- (1) MSS SP-25 "Standard Marking System for Valves, Fittings, Flanges, and Union" (1978).
- (2) MSS SP-44 "Steel Pipe Line Flanges" (1975).
- (3) MSS SP-70 "Cast-Iron Gate Valves, Flanged and Threaded Ends" (1976).

- (4) MSS SP-71 "Cast-Iron Swing Check Valves, Flanged and Threaded Ends" (1976).
- (5) MSS SP-78 "Cast-Iron Plug Valves (1977).
- F. National Fire Protection Association:
- (1) NFPA Standard 30 "Flammable and Combustible Liquids Code" (1977).
- (2) NFPA Standard 58 "Standard for the Storage and Handling of Liquefied Petroleum Gases" (1979).
- (3) NFPA Standard 59 "Standard for the Storage and Handling of Liquefied Petroleum Gases at Utility Gas Plants" (1979).
- (4) NFPA Standard 59A "Storage and Handling Liquefied Natural Gas" (1979).
- (5) "National Electrical Code" NFPA-70 (ANSI) (1978).

SECTION 25. Appendix BI to part 192 of PSC 135 is repealed and recreated to read:

Appendix B - Qualification of Pipe

I. Listed Pipe Specifications. Numbers in parentheses indicate applicable editions.

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API 5L - Steel pipe (1980).

API 5LS - Steel pipe (1980).

API 5LX - Steel pipe (1979).

ASTM A53 - Steel pipe (1979).

ASTM A106 - Steel pipe (1974).

ASTM A134 - Steel pipe (1974).

ASTM A135 - Steel pipe (1974).

ASTM A139 - Steel pipe (1974).

ASTM A211 - Steel and iron pipe (1975).

ASTM A333 - Steel pipe (1979).

ASTM A377 - Cast iron pipe (1979).

ASTM A381 - Steel pipe (1979).

ASTM A539 - Steel tubing (1979).

ASTM Specification A671 - Steel pipe (1977).

ASTM Specification A672 - Steel pipe (1979).

ASTM Specification A691 - Steel pipe (1979).

ASTM B42 - Copper pipe (1980).

ASTM B68 - Copper tubing (1980).
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ASTM B75 - Copper tubing (1980).
ASTM B88 - Copper tubing (1980).
ASTM B251 - Copper pipe and tubing (1976).
ASTM D2513 - Thermoplastic pipe and tubing (1978).
ASTM D2517 - Thermosetting plastic pipe and tubing (1973).
ANSI A21.52 - Ductile iron pipe (1971).

This is a Type III WEPA action pursuant to PSC 2.90(3), Wis. Adm. Code. In addition no unusual circumstances have come to the attention of the commission which would warrant further environmental review. It consequently requires neither an environmental impact statement under s. 1.11, Wis. Stats., nor an environmental assessment.

There will be no fiscal impact of the proposed rules on the state or municipalities. The proposed rules have been forwarded to the legislature for review, pursuant to sec. 227.018, Stats. They will take effect on the first day of the month following publication in the Wisconsin Administrative Register, as provided in sec. 227.026, Stats.

Dated at Madison, Wisconsin

By the Commission.

Jacqueline K. Reynolds Secretary to the Commission

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State of Wisconsin \ PUBLIC SERVICE COMMISSION

April 29, 1983

NESS FLORES, CHAIRMAN STANLEY YORK, COMMISSIONER BRANKO TERZIC, COMMISSIONER 4802 SHEBOYGAN AVENU! P.O. BOX 7854 MADISON, WISCONSIN 53707 (608) 266-2001

Mr. Gary Poulson Assistant Revisor of Statutes 411 West State Capitol Madison, WI 53702

File No.

Re: Rules and Regulations Governing the Construction, Operation and Maintenance of Facilities for Production, Transmission, Distribution and Utilization of Gas, 2-U-3829

Dear Poulson:

Enclosed please find two copies (one certified) of an order of the Public Service Commission adopting rules in the above-entitled matter.

The rules incorporate standards approved by the Revisor and Attorney General in a letter received December 9, 1982. The rules have also been inspected by legislative committees.

I am also enclosing a copy of PSC 135 which has been proofread and contains some errors. We would appreciate it if these could be corrected at the same time the new rules are printed.

Please call with any questions. Thanks.

Sincerely,

Steven Levine

Assistant Chief Counsel

SL:e

Enc.

SECTION 20. Sec. PSC 192.241(c) of PSC 135 is amended to read:

The acceptability of a weld that is nondestructively tested or visually inspected is determined according to the standards in section 6 of the-1973-edition-of API-Standard-1104.--However,-the-standards-in-subsection 69-for-depth-of-undercutting-adjacent-to-the-root bead-apply-only-if API Standard 1104.

- (1)-That-depth-is-visually-determined-by-use-of-a depth-measuring-device-on-all-undercutting-along-the entire-circumstance-of-the-weld;-and
- (2)-Visual-determination-of-internal-undereutting is-made-in-all-pipe-of-the-same-diameter-in-a-pipeline, except-where-impractical-at-tie-in-welds.

SECTION 21. Sec. 192.375(c) of PSC 135 is created to

read:

(c) Plastic service lines that are not encased shall either be installed with an electrically conductive wire having adequate corrosion resistant characteristics or protection or some other acceptable means of readily locating the buried service pipe from the ground surface shall be provided.

SECTION 22. Sec. 192.557(d)(1) of PSC 135 is amended

to read:

If the original laying conditions cannot be ascertained, the operator shall assume, when applying the design formulas of ANSI A21-1 Cl01-67, that cast iron pipe was supported on blocks with tamped backfill and, when applying the design formulas of ANSI A21.50, that ductile iron pipe was laid without blocks with tamped backfill.

SECTION 23. The note in Sec. 192.557(d)(3) of PSC 135 is amended to read:

Note -- The nominal wall thickness of the cast iron is the standard thickness listed in table 10 or table 11, as applicable, of ANSI A21.1 C101-67 nearest the value obtained under this subparagraph. The nominal wall thickness of ductile iron pipe is the standard thickness listed in table 6 of ANSI A21.50 nearest the value obtained under this subparagraph.

SECTION 24. Appendix A to part 192 of PSC 135 is repealed and recreated to read:

Appendix A - Incorporated by Reference

- I. List of organizations and addresses.
- A. American National Standards Institute (ANSI), 1430 Broadway, New York, N.Y. 10018.
- B. American Petroleum Institute (API), 1801 K Street N.W., Washington, D.C. 20006 or 300 Corrigan Tower Building, Dallas, Tex. 75201.
- C. The American Society of Mechanical Engineers (ASME), United Engineering Center, 345 East 47th Street, New York, N.Y. 10017.
- D. American Society for Testing and Materials (ASTM), 1916 Race Street, Philadelphia, PA. 19103.
- E. Manufacturers Standardization Society of the Valve and Fittings Industry (MSS), 5203 Leesburg Pike, Suite 502, Falls Church, Va. 22041.
- F. National Fire Protection Association (NFPA), 470 Atlantic Avenue, Boston, Massachusetts 02110.
- II. Documents incorporated by reference. Numbers in parentheses indicate applicable editions.
- A. American Petroleum Institute:
- (1) API Specification 5A "API Specification for Casing, Tubing, and Drill Pipe" (1979).