

ORIGINALDecision No. 73223

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of
 CALIFORNIA-PACIFIC UTILITIES COMPANY,
 PACIFIC GAS AND ELECTRIC COMPANY,
 PACIFIC LIGHTING SERVICE AND SUPPLY
 COMPANY, SAN DIEGO GAS AND ELECTRIC
 COMPANY, SOUTHERN CALIFORNIA GAS
 COMPANY, SOUTHERN COUNTIES GAS COMPANY
 OF CALIFORNIA, AND SOUTHWEST GAS
 CORPORATION, public utility gas
 corporations, for an order issuing
 General Order No. 112-B setting forth
 rules governing design, construction,
 testing, maintenance and operation of
 utility gas transmission and distribution
 systems and superseding General Order
 No. 112-A.

Application No. 49619
 (Filed August 18, 1967)

O P I N I O N

Applicants filed this joint application pursuant to the provisions of Section 402.1 of the Commission's General Order No. 112-A.^{1/} Applicants request an order from the Commission issuing General Order No. 112-B setting forth rules governing the design, construction, testing, maintenance and operation of utility gas transmission and distribution piping systems as proposed by applicants in Exhibit "B". The proposed General Order No. 112-B contains various deletions, additions, and revisions to General Order No. 112-A and would supersede the latter General Order.

^{1/} Section 402.1 of General Order No. 112-A provides:
 "402.1 For the purpose of keeping the provisions, rules, standards, and specifications of this General Order up to date, the gas utilities subject to these rules, either individually or collectively, shall file annually on or before June 30 a report setting forth such recommended changes in rules, standards, or specifications as they deem necessary to keep this General Order up to date in keeping with the purpose, scope, and intent thereof, or stating that no changes are deemed to be necessary. Gas utilities recommending changes shall, either collectively or otherwise, file appropriate formal applications seeking Commission approval for such changes. However, nothing herein shall preclude other interested parties from initiating appropriate formal proceedings to have the Commission consider any changes they deem appropriate, or the Commission from acting upon its own motion."

On December 28, 1960, the Commission, by Decision No. 61269 (58 CPUC 413) issued General Order No. 112 covering the design, construction, testing, maintenance and operation of both gas distribution and transmission pipeline systems. This General Order became effective on July 1, 1961. The General Order adopted by reference, with certain modifications, the 1958 edition of Section 8 of American Standard Code for pressure piping designated as ASA B31.8-1958 and published by the American Society of Mechanical Engineers. On December 3, 1963, the Commission by Decision No. 66399 (61 CPUC 744) issued General Order No. 112-A which became effective on January 1, 1964. General Order No. 112-A adopted by reference, with certain modifications, the 1963 edition of the above-mentioned Code, ASA B31.8-1963, to reflect the changes brought about by the said Code together with other amendments applicable to General Order No. 112.

The revisions to General Order No. 112-A recommended by applicants fall generally into three categories:

1. Changes brought about by the 1967 edition of the United States of America Standards Institute Code,^{2/} USAS B31.8-1967.
2. Changes and additions to reporting requirements as indicated in Chapter IV of General Order No. 112-A.
3. Editorial changes in Sections 303.1, 303.2, 214, 215, and 216 of General Order No. 112-A.

^{2/} The American Standards Association was reconstituted as the United States of America Standards Institute on August 24, 1966.

1967 Edition of United States of America Standards Institute Code

The USA Standards Institute has made revisions to the 1963 edition of the Code. These revisions have been incorporated into a new 1967 edition which is referred to as USAS B31.8-1967. This revision of the Code became effective on April 10, 1967. Applicants request that these revisions be incorporated in the Commission's General Order by changing the reference therein from ASA B31.8-1963 to USAS B31.8-1967.

Changes incorporated in the 1967 edition are in general the result of additional experience and technological developments in metallurgy and manufacturing techniques in the field of standards for pressure pipes accumulated during the past four years. While the revisions are not major in scope, there are two significant additions covering the use of plastic and ductile iron pipe. Exhibit "C" of the application sets forth in detail the revisions and new material incorporated in the 1967 Code and compares these changes with the corresponding sections of the 1963 Code. Plastic pipe had not been approved for use under the Code ASA B31.8-1963, but paragraph 811.24 of said Code allowed limited use of such pipe after testing. The advancement of manufacturing techniques made possible the general use of plastic pipe in the 1967 Code.

Section 202.1 of the proposed General Order No. 112-B reflects the additions and changes in the mandatory language as presented in the 1967 Code.

Changes and Additions to Reporting Requirements as Indicated in Chapter IV of General Order No. 112-A.

The proposed General Order No. 112-B contains certain changes to the reporting requirements as set forth in Chapter IV of General Order No. 112-A and certain additional reporting requirements. Those changes and additions are shown in Exhibit "B" of the application. From a safety standpoint, the major additional reporting requirements include: protection of pipeline from hazards and external corrosion, failure of a pipeline during strength testing, surveillance of pipelines and mains, operating and maintenance studies, location class changes, and proposed installation for material not covered in the USAS B31.8 Code. All the above-mentioned items are detailed in Chapter IV of proposed General Order No. 112-B.

As background for continuing reports, it was mutually agreed, between the applicants and the Commission staff, that it would be useful for the Commission to have a report describing existing pipelines and mains operating or intended to be operated at or above 20 percent of the specified minimum yield strength of the pipe materials. Because such information will be required only once, the requirement for its submission should not be included in the General Order. The applicants proposed the following items for inclusion in the initial report:

1. MAOP^{3/} and corresponding hoop stress.
2. Description and physical characteristics of the pipeline or main.
3. Description of sections of existing pipelines and mains where the hoop stress corresponding to the established MAOP exceed those permitted for new pipelines or mains in the same location class.

^{3/} Maximum allowable operating pressure. Section 805.14 of USAS B31.8-1967 Code defines: "Maximum allowable operating pressure is the maximum pressure at which a gas system may be operated in accordance with the provisions of this Code."

4. Initial or most recent test data.
5. Summary of existing condition of pipelines and mains based upon available records.

Changes in Sections 303.1, 303.2, 214, 215 and 216 of General Order No. 112-A

These changes to the existing General Order No. 112-A are designed to clarify those sections listed above. The changes are set out in detail in Exhibit "B" of the application.

Findings

Upon consideration of the evidence the Commission finds that:

1. It is in the best interest of the consuming public and the public utility corporations that General Order No. 112-A covering the design, construction, testing, maintenance and operation of both distribution and transmission pipeline systems be revised to reflect additional experience and technological developments since the revision of said General Order No. 112 in 1963.
2. It is reasonable and in the public interest that reference in the General Order to ASA B31.8-1963 be revised to reflect the 1967 edition of said USA Standard Code to the extent set forth in Appendix A hereof.
3. From a safety standpoint, it is reasonable and in the public interest that the proposed changes and additions to reporting requirements to the General Order be adopted as set forth in Appendix A hereof.
4. Applicants' proposed initial report describing certain existing pipelines and mains is reasonable.
5. The editorial changes recommended by applicants as set forth in Exhibit "B" are reasonable and should be adopted in the revised General Order.

6. It is recognized that no code of safety rules, no matter how carefully and well prepared, can be relied upon to guarantee complete freedom from accidents. Moreover, the adoption of precautionary safety rules does not remove or minimize the primary obligation and responsibility of gas corporations to provide safe service and facilities in their gas operations. Officers and employees of the gas corporations must continue to be ever conscious of the importance of safe operating practices and facilities and of their obligation to the public in that respect.

7. The rules governing the design, construction, testing, maintenance, and operation of gas transmission and distribution piping systems set forth in the attached General Order No. 112-B, Appendix A, are reasonable and necessary to and will promote public safety in the construction and operation of gas piping facilities and also will promote the furnishing of gas service to the public in California. A public hearing is not necessary and said General Order No. 112-B, Appendix A, should be adopted and should supersede General Order No. 112-A.

The Commission having found as hereinabove set forth concludes that it should issue its order as follows:

O R D E R

IT IS ORDERED that:

1. General Order No. 112-B is hereby adopted, to read as shown in Appendix A, attached to this order and made a part hereof, to be effective on and after December 1, 1967, superseding General Order No. 112-A.

2. A copy of this decision shall be mailed to each gas corporation under the jurisdiction of this Commission.

A. 49619 AB

3. All gas corporations shall comply with the terms and provisions of General Order No. 112-B on and after its effective date.

4. All gas corporations shall submit a report in duplicate describing existing pipelines and mains operating or intended to be operated at or above 20 percent of the specified minimum yield strength of the pipe materials. The following items shall be included in the said report:

- a. MAOP and corresponding hoop stress.
- b. Description and physical characteristics of the pipeline or main.
- c. Description of sections of existing pipelines and mains where the hoop stress corresponding to the establishing MAOP exceed those permitted for new pipelines or mains in the same location class.
- d. Initial or most recent test data.
- e. Summary of existing condition of pipelines and mains based upon available records.

This report shall be submitted as soon as it is available but no later than six months after the effective date of this order.

The effective date of this order shall be twenty days after the date hereof.

Dated at San Francisco, California, this 24th day of OCTOBER, 1967.

[Signature]
President
[Signature]
[Signature]
[Signature]
Commissioners

APPENDIX A

GENERAL ORDER NO. 112-B

PUBLIC UTILITIES COMMISSION OF THE
STATE OF CALIFORNIA

RULES GOVERNING DESIGN, CONSTRUCTION,
TESTING, MAINTENANCE AND OPERATION OF UTILITY
GAS TRANSMISSION AND DISTRIBUTION
PIPING SYSTEMS

Adopted October 24, 1967 ;

Decision No. 73223 ;

Effective December 1, 1967

Application No. 49619

GENERAL ORDER NO. 112-B

RULES GOVERNING DESIGN, CONSTRUCTION, TESTING, MAINTENANCE
AND OPERATION OF UTILITY GAS TRANSMISSION AND DISTRIBUTION
PIPING SYSTEMS

TABLE OF CONTENTS

| | <u>Page No.</u> |
|--|-----------------|
| CHAPTER I - GENERAL PROVISIONS | |
| Title | 1 |
| Purpose | 1 |
| Scope | 1 |
| Intent | 1 |
| Precedence | 2 |
| Modification | 2 |
| Compliance with USAS Code | 2 |
| CHAPTER III - ADDITIONS AND AMENDMENTS TO THE USAS CODE | |
| Definitions | 3 |
| General Provisions | 3 |
| Cover Requirements | 4 |
| Miter Joints and Wrinkle Bends | 4 |
| Pipe Bends | 4 |
| Weld Inspection | 4 |
| Welder Qualification | 5 |
| Odorization | 5 |
| Strength Testing | 5 |
| Classification of Locations | 6 |
| Pipe-Type and Bottle-Type Holders | 6 |
| Maximum Allowable Operating Pressure for Low Pressure Distribution Systems | 6 |
| Location of Service Shut-Offs | 6 |
| Abandoning of Distribution Facilities | 6 |
| Procedures for Maintaining Pipe-Type and Bottle- Type Holders in Safe Operating Condition | 6 |
| CHAPTER IIII - RECORDS | |
| General | 7 |
| Specifications | 7 |
| Operating and Maintenance Procedures | 7 |
| CHAPTER IV - REPORTS | |
| General | 8 |
| Procedure for Keeping General Order Up to Date | 10 |

CHAPTER I

GENERAL PROVISIONS

Section 101 TITLE

101.1 This General Order shall be known as the "Rules Governing Design, Construction, Testing, Maintenance and Operation of Utility Gas Transmission and Distribution Piping Systems", and will be referred to herein as "these rules".

Section 102 PURPOSE

102.1 The purpose of these rules is to establish minimum requirements for the design, construction, quality of materials, location, testing, operation and maintenance of facilities used in the transmission and distribution of gas, to safeguard life or limb, health, property and public welfare and to provide that adequate service will be maintained by gas utilities operating under the jurisdiction of the Commission.

102.2 These rules are concerned with safety of the general public and employees' safety to the extent they are affected by basic design, quality of the materials and workmanship, and requirements for testing and maintenance of gas transmission and distribution facilities.

Section 103 SCOPE

103.1 These rules shall apply to the design, construction, installation, inspection, testing, and the safety aspects of operation and maintenance of gas transmission and distribution systems, including gas pipelines, gas compressor stations, gas metering and regulating stations, gas mains, and gas services up to the outlet of the customer's meter set assembly.

Section 104 INTERVENT

104.1 The requirements of these rules are adequate for safety under conditions normally encountered in the gas industry. Requirements for abnormal or unusual conditions are not specifically provided for, nor are all details of engineering and construction prescribed. It is intended that all work performed within the scope of these rules shall meet or exceed the safety standards expressed or implied herein.

104.2 Existing industrial safety regulations pertaining to work areas, safety devices, and safe work practices are not intended to be supplanted by these rules.

104.3 It is not intended that these rules be applied retroactively to existing installations in so far as design, fabrication, installation, established operating pressure and testing are concerned. It is intended, however, that the provisions of these rules shall be applicable to the operation, maintenance, and uprating of existing installations.

104.4 Compliance with these rules is not intended to relieve a utility from any statutory requirements.

104.5 The establishment of these rules shall not impose upon utilities, and they shall not be subject to, any civil liability for damages, which liability would not exist at law if these rules had not been adopted.

Section 105 PRECEDENCE

105.1 These rules shall take precedence over all orders, general or special, heretofore made by the Commission, in so far as said orders may be inconsistent with these rules.

105.2 These rules shall take precedence over all rules filed or to be filed by gas utilities in so far as inconsistent therewith. Rules of utilities now on file and inconsistent with the rules herein established shall be properly revised and refiled within sixty days from the effective date of this order.

Section 106 MODIFICATION

106.1 If hardship results from application of any rule herein prescribed because of special facts, application may be made to the Commission to deviate from the General Order. Each request for deviation shall be accompanied by a full and complete justification for such requested deviation, together with a proposed alternate rule which will be applicable to the conditions requiring the deviation.

Section 107 COMPLIANCE WITH USAS CODE

107.1 Gas transmission and distribution facilities shall be constructed and operated in compliance with the provisions of USAS Standard Code for Pressure Piping Gas Transmission and Distribution Piping Systems USAS B 31.8 - 1967 and in compliance with the further requirements of the additional rules herein prescribed.

107.2 Where there is any conflict between the provisions of USAS B 31.8 - 1967 and any rule specifically set forth herein, the latter shall govern, and USAS B 31.8 - 1967 shall be deemed to have been modified, amended, or revised to comply with the provisions of Chapter II of this Order.

107.3 For the purpose of complying with the rules herein adopted and prescribed, gas companies shall be governed by the provisions of USAS B 31.8 - 1967 and any other codes, standards or specifications contained therein, in so far as any such codes are herein made applicable, which were in effect on April 10, 1967, and shall not be governed by any deletions, additions, revisions, or amendments thereof, made after said date, unless and until said deletions, additions, revisions and amendments have been authorized by the Commission.

107.4 Anything contained in USAS B 31.8 - 1967 to the contrary notwithstanding, there shall be no deviation from this General Order except after authorization by the Commission.

CHAPTER II

ADDITIONS AND AMENDMENTS TO THE UNITED STATES OF AMERICA
STANDARD CODE FOR PRESSURE PIPING
GAS TRANSMISSION AND DISTRIBUTION PIPING SYSTEMS
(USAS B 31.8 - 1967)

Section 201 DEFINITIONS

201.1 COMMISSION shall mean the Public Utilities Commission of the State of California.

201.2 UTILITY shall mean any person, firm or corporation engaged as a public utility in transmitting natural gas, hydrocarbon gas, or any mixture of gases for domestic, commercial, industrial or other purposes.

Section 202 GENERAL PROVISIONS

202.1 The following provisions of USAS B 31.8 - 1967 shall be amended as follows:

821.3, line 1, change "These standards are based on the principle that a welding procedure has been established and qualified" to "Each utility shall establish and qualify a welding procedure";

826.1, line 6, delete "may" and change "be advisable" to "is required";

827.1, lines 6 and 7, delete "may" and change "be advisable" to "is required";

828.1, line 4, change "should" to "shall";

829.9(a), line 1, change "recommended" to "required";

841.162, line 11, change "should" to "shall";

841.222, line 4, change "should" to "shall";

841.23, line 3, change "may" to "shall";

841.241(a), line 7, change "recommended" to "required";

841.271, line 2, change "should" to "shall";

841.283, line 2, change "should" to "shall";

841.284, line 7, change "suggested" to "required";

841.285(a), line 6, change "should" to "shall";

841.285(b), line 6, change "should" to "shall";

845.23(c), line 7, change "should" to "shall";

845.34(a), line 8, change "recommended" to "required";

845.34(b), line 2, change "should" to "shall";

- 845.34(c), line 2, change "should" to "shall";
- 849.11(a), line 4, change "recommended" to "required";
- 849.221(a), line 2, change "should" to "shall";
- 849.221(b), line 3, change "should" to "shall";
- 849.221(c), line 1, change "preferably should" to "shall";
- 850.4, line 2, change "should" to "shall";
- 850.4(c), line 1, change "should" to "shall";
- 851.1, lines 2 and 11, change "should" to "shall";
- 851.3, lines 5 and 10, change "should" to "shall";
- 852.22(a), lines 2 and 8, change "should" to "shall";
- 852.22(b), line 7, change "should" to "shall";

Section 203 COVER REQUIREMENTS

203.1 Buried pipelines and mains operating or intended to be operated at hoop stresses of 20% or more of the specified minimum yield strength shall be installed with a minimum cover of 30" in Class 3 and Class 4 locations. Where it is impractical to comply with this provision and it is necessary to prevent damage from external loads, the pipe shall be cased or bridged instead.

Section 204 MITER JOINTS AND WRINKLE BENDS

204.1 Mitered joints at an angle greater than 3°, and wrinkle bends, shall not be permitted on pipelines or mains operating or intended to be operated at hoop stresses of 20% or more of the specified minimum yield strength.

Section 205 PIPE BENDS

205.1 Pipe bends shall not be made within one and one-half pipe diameters of a circumferential weld on piping systems that operate or are intended to be operated at hoop stresses of 20% or more of the specified minimum yield strength.

Section 206 WELD INSPECTION

206.1 On pipelines or mains operating or intended to be operated at hoop stresses of 20% or more of the specified minimum yield strength, the quality of welding shall be checked by non-destructive testing including visual inspection or by destructive testing to determine that the welds conform to the standards of acceptability of this order.

The extent of weld inspection shall be sufficient to establish that the performance of each welder is sampled. The following minimum inspections shall be made:

- 100% of welds at tie-ins.
- 100% of welds at river, highway and railroad crossings.
- 100% of welds at taps to pipelines.
- 100% of welds which contain repaired areas.
- 30% of welds in Class 3 and Class 4 locations.
- 20% of welds in Class 1 and Class 2 locations.

A record shall be made of the results of the tests and the method employed.

Section 207 WELDER QUALIFICATION

207.1 No welder shall be used on pipelines or mains that operate or are intended to be operated at hoop stresses of 20% or more of the specified minimum yield strength, unless qualified within the preceding year.

Section 208 ODORIZATON

208.1 Except for combustible gases transported between points of receipt near wellheads and points of delivery into the transmission and/or distribution systems of utilities in Class 1 and Class 2 locations, all such gases transported by utilities and/or delivered to customers shall have a distinctive odor of sufficient intensity so that the presence of the gas may be detected down to the concentration in air of not over 1/5 the lower limit of combustibility. Whenever necessary to maintain this level of intensity, a suitable odorant shall be added in accordance with the following specifications.

208.2 Odorants in the concentrations used shall be:

- Harmless to humans
- Nontoxic
- Noncorrosive to steel, iron, brass, copper and leather
- Non-soluble in water to an extent greater than 2.5 parts by weight of odorant to 100 parts by weight of water.

208.3 Odorizing equipment shall be:

- (a) Designed to maintain reasonably uniform level of odor in the gas.
- (b) Installed as close as practicable to gas producing areas.

208.4 Each utility shall make periodic checks to determine that a proper level of odorization is maintained.

208.5 At least once a year leakage surveys complying with the requirements of Section 852.21 of USAS B 31.8 - 1967 shall be made of all pipelines carrying gas which does not have a distinctive odor as required by Section 208.1.

Section 209 STRENGTH TESTING

209.1 The requirements set forth in this section shall apply only to pipelines and mains operating or intended to be operated at hoop stresses of 20% or more of the specified minimum yield strength.

209.11 Minimum test pressure in Class 1 and Class 2 locations shall be 1.25 times maximum operating pressure or 90% of the mill test pressure, whichever is the lesser.

209.12 Minimum test pressure in Class 3 and Class 4 locations shall be 1.50 times maximum operating pressure or 90% of the mill test pressure, whichever is the lesser.

209.13 Where water is utilized as the test fluid, adequate provisions shall be made for disposal of the water and steps shall be taken to guard against contamination of local water supply.

209.14 Test pressure shall be maintained until the pressure has stabilized in all portions of the test sections. In no event shall the test at maximum pressure be less than one hour.

209.15 At tie-in connections where it is impractical to test for strength, all welds shall be inspected for quality at least equal to that of the strength tested portions of the pipeline.

Section 210 CLASSIFICATION OF LOCATIONS

210.1 The provisions of USAS B 31.8 - 1967 specifying standards of construction for pipelines in Class 3 and Class 4 locations shall be applicable to construction inside the incorporated areas of municipalities regardless of any provisions of said USAS B 31.8 - 1967 permitting lower standards for pipelines within incorporated areas depending upon the concentration of development therein.

Section 211 PIPE-TYPE AND BOTTLE-TYPE HOLDERS

211.1 Section 844 of the United States of America Standard Code for Gas Transmission and Distribution Piping Systems (USAS B 31.8 - 1967) is herewith amended in its entirety to conform to General Order No. 94-A of the Commission.

Section 212 MAXIMUM ALLOWABLE OPERATING PRESSURE FOR LOW PRESSURE DISTRIBUTION SYSTEMS

212.1 Section 845.43 of the United States of America Standard Code for Gas Transmission and Distribution Piping Systems (USAS B 31.8 - 1967) is herewith amended in its entirety to conform to General Order No. 58-A, Rules 17, 18, and 19, of the Commission.

Section 213 LOCATION OF SERVICE SHUT-OFFS

213.1 Section 849.13 of the United States of America Standard Code for Gas Transmission and Distribution Piping Systems (USAS B 31.8 - 1967) is herewith amended in its entirety to conform to General Order No. 58-A, Rule 33, of the Commission.

Section 214 SECONDARY STRESSES ON PLASTIC SERVICE LINES

214.1 Section 849.52(b)(2) of the United States of America Standard Code for Gas Transmission and Distribution Piping Systems (USAS B 31.8 - 1967) is herewith amended in its entirety to read as follows:

"The plastic service line is not subjected to secondary stresses by the customer's meter or its connecting piping."

Section 215 ABANDONING OF DISTRIBUTION FACILITIES

215.1 Section 852.3 of the United States of America Standard Code for Gas Transmission and Distribution Piping Systems (USAS B 31.8 - 1967) is herewith amended in its entirety to conform to General Order No. 58-A, Rule 6, of the Commission.

Section 216 PROCEDURES FOR MAINTAINING PIPE-TYPE AND BOTTLE-TYPE HOLDERS IN SAFE OPERATING CONDITION

216.1 Section 854 of the United States of America Standard Code for Gas Transmission and Distribution Piping Systems (USAS B 31.8 - 1967) is herewith amended in its entirety to conform to General Order No. 94-A of the Commission.

CHAPTER III

RECORDS

Section 301 GENERAL

301.1 The responsibility for the maintenance of necessary records to establish that compliance with these rules has been accomplished rests with the utility. Such records shall be available for inspection at all times by the Commission or the Commission staff.

Section 302 SPECIFICATIONS

302.1 Specifications for material and equipment, installation, testing and fabrication shall be maintained by the utility.

Section 303 OPERATING AND MAINTENANCE PROCEDURES

303.1 Plans covering operating and maintenance procedures, including maximum allowable operating pressure to which the line is intended to be subjected, shall be maintained by the utility.

303.2 No pipeline shall be operated in excess of the maximum allowable operating pressure recorded by the company in accordance with this section.

CHAPTER IV

REPORTS

Section 401 GENERAL

401.1 In order that the Commission may be informed concerning the operation and the status of the more important facilities of the utilities, the following information shall be filed with the Commission.

401.2 Proposed Installations. At least 30 days prior to the construction of a pipeline intended to be operated at hoop stresses of 20 percent or more of the specified minimum yield strength of the pipe used, a report shall be filed with the Commission setting forth the proposed route and general specifications for such pipeline. The specifications shall include but not be limited to the following items:

- (a) Description and purpose of the proposed pipeline.
- (b) Specifications covering the pipe selected for installation, route map segregating incorporated areas, terrain profile sketches indicating maximum and minimum elevations for testing purposes and, when applicable, reasons for use of casing or bridging where the cover will be less than 30 inches in Class 3 or 4 locations.
- (c) Maximum allowable operating pressure for which the line is being constructed.
- (d) Fluid and pressure to be used during proof strength testing.
- (e) Protection of pipeline from hazards as indicated in paragraph 841.15.
- (f) Protection of pipeline from external corrosion as indicated in paragraph 841.173.

During strength testing of a pipeline, any failure of the pipeline shall be reported to the Commission giving full description of the failure and the corrective measure to be taken. The retest record of the repaired section and the subsequent analysis of the failed section shall be filed with the Commission.

401.3 Reconstruction or Reconditioning. At least 30 days prior to major reconstruction or reconditioning of a pipeline operating or intended to be operated at hoop stresses of 20 percent or more of the specified minimum yield strength of the pipe used, a report shall be filed with the Commission setting forth the general specifications, and reasons therefor, covering such reconstruction or reconditioning. The specification shall include but not be limited to the following items:

- (a) Description and reason for the proposed reconstruction or reconditioning.

- (b) Specifications covering the pipe selected for installation, route map segregating incorporated areas, terrain profile sketches, indicating maximum and minimum elevations for testing purposes, and, when applicable, reasons for use of casing or bridging where the cover will be less than 30 inches in Class 3 or 4 locations.
- (c) Maximum allowable operating pressure for which the line is being constructed or reconditioned.
- (d) Fluid and pressure to be used during proof strength testing.
- (e) Procedures used to requalify the reconditioned pipeline.
- (f) Protection of pipeline from hazards as indicated in paragraph 841.15.
- (g) Protection of pipeline from external corrosion as indicated in paragraph 841.173.

During strength testing of a pipeline, any failure of the pipeline shall be reported to the Commission giving full description of the failure and the corrective measure to be taken. The retest record of the repaired section and the subsequent analysis of the failed section shall be filed with the Commission.

401.4 Change in Maximum Allowable Operating Pressure.

At least 30 days prior to an increase and not later than 30 days subsequent to a decrease in the maximum allowable operating pressure of a pipeline, a report shall be filed with the Commission giving the new maximum allowable operating pressure, the reasons for such change, and, if increased, the steps taken to determine the capability of the pipeline to withstand such an increase.

401.5 Surveillance of Pipelines and Mains. Each gas utility shall file with the Commission its procedures used for the continuing surveillance of pipelines and mains that are operated or are intended to operate at or above 20 percent of the specified minimum yield strength of the pipe material. Changes made during the prior year to these procedures shall be reported annually on or before March 31.

401.6 Operating and Maintenance Studies. Each gas utility shall annually file with the Commission on or before March 31 a report summarizing the extent and results of its periodic surveys and studies made during the previous calendar year of its pipelines and mains that are operated or are intended to operate at or above 20 percent of the specified minimum yield strength of the pipe material. The report shall include a separate list of all studies made because of unusual operating or maintenance conditions that are found, such as failures, leakage, internal or external corrosion, or substantial changes in cathodic protection requirements. This report shall include the action taken as the result of such studies.

401.7 Location Class Changes. Each gas utility shall report annually to the Commission on or before March 31 changes in location class which result in stress levels, at the previously established MAOP, higher than those permitted by these rules for new pipelines or mains in the new location class. The report shall set forth the results of each study and the action taken.

401.8 Proposed Installation for Material Not Covered in The USAS B 31.8 Code. Where major items that are important from a safety standpoint are to be qualified under Section 811.221 a report shall be filed with the Commission at least 90 days prior to the construction of a pipeline or main intended to be used for transmission or distribution system. Major items of piping material that are important from a safety standpoint shall not be qualified under Section 811.24. This report shall set forth the proposed route and general specifications as required under paragraph 401.2 of this General Order. Should there be any subsequent unsatisfactory operating condition after the pipeline is in operation, it shall be reported to the Commission giving full details of the condition and the corrective measures to be taken.

Section 402 PROCEDURE FOR KEEPING GENERAL ORDER UP TO DATE

402.1 For the purpose of keeping the provisions, rules, standards, and specifications of this General Order up to date, the gas utilities subject to these rules, either individually or collectively, shall file annually on or before June 30 a report setting forth such recommended changes in rules, standards, or specifications as they deem necessary to keep this General Order up to date in keeping with the purpose, scope, and intent thereof, or stating that no changes are deemed to be necessary. Gas utilities recommending changes shall, either collectively or otherwise, file appropriate formal applications seeking Commission approval for such changes. However, nothing herein shall preclude other interested parties from initiating appropriate formal proceedings to have the Commission consider any changes they deem appropriate, or the Commission from acting upon its own motion.