GH

Decision No. 61269

ORIGINAL

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Investigation into the Need of a General Order Governing Design, Construction, Testing, Maintenance and Operation of Gas Transmission Pipeline Systems.	)))))	Case No. 6352

(Appearances and Witnesses are listed in Appendix B)

O P I N I O N

Purpose of Investigation

By an investigation order filed September 22, 1959, the Commission initiated the above-entitled proceeding for the following purposes:

1. To determine whether the health or safety of employees or customers of public utility gas corporations, or of the public, require the establishing of orders, rules, or standards governing the design, construction, testing, maintenance, and operation of gas transmission pipeline systems.

2. To determine whether a general order in the nature and form of Exhibit A attached to the order instituting investigation, or any other, is appropriate for such purposes.

The order instituting investigation herein, with a copy of a proposed general order, Exhibit A attached thereto, was served upon 17 public utility gas corporations operating in California and copies were mailed to 352 cities, the Board of Supervisors of 58 counties, and to 21 other parties, including industrial or governmental agencies, and trade associations.

Public Hearing

After due notice, public hearings were held on this investigation before Examiner William W. Dunlop in San Francisco on October 13, 1959 and on January 18, 19, 20, 21 and 22, 1960. The proceeding

was taken under submission at the close of the hearing on January 22, 1960, subject to the filing of written statements within 30 days after the receipt of transcript.

At the initial hearing, the Commission staff presented evidence through one witness in support of a general order (Exhibit No. 1) governing design, construction, testing, maintenance and operation of gas transmission pipeline systems.[1/] Also, a witness for the City of Los Angeles, Department of Public Utilities and Transportation, presented one exhibit (Exhibit No. 2) containing comments and suggestions on certain sections of the proposed general order.[2/] The investigation then was continued to January 18, 1960 to afford respondents and other parties time in which to study the proposed general order, exhibits and testimony and to prepare such showing as they deemed pertinent.

At the adjourned hearing the Commission staff presented three additional exhibits. Following cross-examination of the staff witness, the respondents presented 36 exhibits and testimony through five witnesses relating to alternative proposals. One alternative proposal was presented by Pacific Gas and Electric Company, while another was presented by the Pacific Lighting group of companies.[3/] The Pacific Lighting proposal covered not only gas transmission pipeline systems but also gas distribution pipeline systems.

Oral statements of position were presented on behalf of the City of Los Angeles, Department of Water and Power, the California Farm Bureau Federation, Southwest Gas Corporation, and San Diego Gas & Electric Company. Written statements were filed by the Commission

1/ Exhibit No. 1 is, in general, the same as Exhibit A attached to the order instituting investigation with some revisions.
2/ Exhibit A attached to the order instituting investigation herein.
3/ Pacific Lighting Gas Supply Company, Southern California Gas Company, Southern Counties Gas Company of California.

staff, Pacific Gas and Electric Company, and by the Pacific Lighting group of companies. The matter now is ready for decision.

Petition for Examiner's Proposed Report

On January 20, 1960, Pacific Gas and Electric Company filed a petition requesting that a proposed report be issued by the presiding examiner regarding the issues developed at the hearing. This request was joined in by San Diego Gas & Electric Company, Pacific Lighting Gas Supply Company, Southern California Gas Company, and Southern Counties Gas Company of California. The Commission has carefully considered this request and is of the opinion that no useful purpose would be served by the issuance of an examiner's proposed report. Accordingly, the request is denied.

Jurisdiction of Commission to Prescribe General Order

Under Section 768 of the Public Utilities Code, "The commission may, after a hearing, by general....orders, rules or otherwise, require every public utility to construct, maintain and operate its line, plant, system, equipment, apparatus....in such manner as to promote and safeguard the health and safety of its employees.... customers, and the public,....establish uniform or other standards of construction and equipment, and require the performance of any other act which the health or safety of its employees,....customers, or the public may demand."

Position of Commission Staff

The Commission staff contends that there is an adequate showing to find that a general order is required in the interest of promoting and safeguarding health and safety in the area embraced in the order instituting investigation herein. The staff further suggests that its proposals in Exhibit No. 1 were designed with the public interest primarily in view, in order to afford maximum protection against hazards of operation of high-pressure transmission pipelines, and are reasonably necessary to achieve that end.

Position of the Respondents

Respondents Pacific Gas and Electric Company, Southwest Gas Corporation, San Diego Gas & Electric Company and the Pacific Lighting group assert that no general order on this subject is necessary. They claim that there is no evidence to show that public health or safety has suffered from the lack of a general order; that the safety record of California gas utilities has been excellent; that there have been no major pipeline failures in the State resulting in either loss of life or major interruption of service; that there is nothing to indicate this good record will not continue; and that the gas utilities in California voluntarily follow the American Standards Association (ASA) code for gas transmission and distribution piping systems.[4/]

It was the further position of Pacific Gas and Electric Company, San Diego Gas & Electric Company and the Pacific Lighting group that if the Commission should determine that a general order governing gas pipeline systems is necessary, the interests of the Commission, the public and the utilities would be best served by the adoption of the ASA Code as proposed by the Pacific Lighting group or in some other manner including both transmission and distribution lines.

Position of Interested Parties

The representative of the Department of Public Utilities and Transportation, City of Los Angeles, took the position that it was in the public interest to have regulations governing the construction and operation of all gas pipelines including transmission and distribution primarily for public safety reasons; that it is desirable for this Commission to establish a complete gas pipeline code; but that statutory requirements should not be relieved by such a code.

The representative of the California Farm Bureau Federation took the position there was no evidence showing that a service or a

4/ ASA B31.8-1958

safety problem exists under current practices of the gas utilities in California and suggested dismissal of the proceeding without the issuance of any general order as being in the best interest of the people of the State of California. However, this representative suggested that if the issuance of a general order is found to be necessary, the ASA Code relating to both transmission and distribution pipelines be adopted with provision for amendment by ex parte proceedings unless protests are filed.

Need for General Order

Gas is a highly combustible and volatile element, possessing explosive characteristics under certain conditions. The evidence in this record reveals that there is increasing activity in California in gas pipeline construction, that higher pressures are now being carried in such pipelines, and that there is increased exposure of the public to gas pipeline facilities. Large diameter gas pipelines operating at pressures ranging from 800 to 1,000 psi or more are in use in this State. Furthermore, new developments in metallurgy and fabrication have made feasible the construction of pipelines of thinner walled pipe operating at much higher stress levels than had heretofore been possible.

Examples of gas pipeline construction activity in California in the past few years and planned for the immediate future are shown in this record and are summarized herein. Commencing in 1947 the original Texas pipeline was constructed from Blythe to Los Angeles. This pipeline is 30 inches in diameter, 210 miles in length, and operates at a maximum pressure of 800 psi. Subsequent to 1947, this pipeline has been paralleled with a 30-inch line throughout its entire length. The Topock to Milpitas 34-inch pipeline extends 506 miles in length and, since its initial construction, has been paralleled throughout its entire length. A 30-inch pipeline from

Topock to Newhall extending 236 miles in length was recently placed in service. Lines of lesser magnitude which are in service include a 12-inch line, 160 miles in length, from Corning to Eureka, and a 34-inch pipeline, 80½ miles in length, between Buena Vista and Newhall. Three major gas pipelines that are planned or under construction include a 207-mile, 34-inch line from Ivanpah to Placentia, to be operated at a maximum pressure in excess of 950 psi; a 34-inch pipeline, 128 miles in length, from Topock to Newberry, to be operated in excess of 1,000 psi; and a 296-mile, 36-inch pipeline from the California-Oregon border to Antioch.

We do not understand that Section 768 of the Public Utilities Code requires the Commission to wait until some major pipeline failure has interrupted service to, taken the lives of, or seriously injured members of the public before it may require gas utilities to construct, maintain and operate their pipelines in such manner as to promote and safeguard the health and safety of the public. While it is commendable that gas utilities in this State generally have voluntarily followed recognized national standards for various reasons including, perhaps, the sanctions of civil liabilities, and have achieved an outstanding safety record, these factors do not relieve this Commission from its regulatory responsibilities in this field. Increasing activity in gas pipeline construction, higher pressures, increased public exposure and higher pipeline stress levels all point to the need now for prescribing an appropriate general order in this field to promote and safeguard public health and safety and to promote the maintenance of adequate gas service to the public. Regulatory agencies in 14 states already have prescribed rules in this field.

Proposed General Orders

Basically the record contains three different proposals; first, the proposed general order presented by the Commission staff

(Exhibit No. 1); second, a revision of the staff proposal introduced by Pacific Gas and Electric Company but not recommended by that utility (Exhibit No. 39); and third, the general order presented by the Pacific Lighting group, assuming that a need for any general order exists (Exhibit No. 6). Essentially, the proposal of the Pacific Lighting group is the adoption of the ASA Code (B 31.8-1958) but with some modifications.

The order instituting investigation as framed by the Commission was limited in scope to gas transmission pipeline systems. However, the respondents adduced matters outside of the scope of said order, urging that if any general order is prescribed it embrace both transmission and distribution pipelines. Witness for the respondents testified that transmission and distribution lines are so interrelated that it is difficult to make a segregation; that in many areas the function of a specific pipeline will vary between being a distribution line at certain seasons of the year, depending on loads and temperature, and being a transmission pipeline at other seasons of the year; that generally for the same diameter pipeline, whether it be in distribution service or transmission service, the same materials and construction practices would apply; and that the stress level at which a pipeline will operate is much more important than whether a particular pipeline is a transmission or a distribution line.

Staff Proposed General Order (Exhibit No. 1)

The proposed general order presented by the Commission staff limits itself to transmission pipeline systems which are designed to operate at stress levels 20 percent or more of the specified minimum yield strength of the pipe used in the system. According to the testimony, the staff intends at a future date to explore the need for a general order dealing with facilities which are stressed to levels lower than 20 percent and, if warranted, to recommend such rules as may be required.

Exhibit No. 1, to some extent, is similar in format and text to the ASA (B 31.8) Code. It contains 10 chapters and 8 appendices. The chapters are headed: (1) General Provisions, (2) Materials and Equipment, (3) Design, (4) Construction, (5) Welding, (6) Purging, (7) Testing and Inspection, (8) Operation and Maintenance, (9) Miscellaneous, and (10) Reports. The appendices, which contain certain engineering data, are designated: (A) Bending Properties of Pipe, (B) Longitudinal Joint, (C) Qualification of Welders, (D) Design Formula for Steel Pipe, (E) Specified Minimum Yield Strength, (F) Design Factor "F", (G) Temperature Derating Factor and (H) Minimum Construction Type Allowable.

The purpose of the staff proposal, as set forth in Section 102 of Exhibit No. 1, is to establish minimum requirements for the design, construction, quality of materials, location, testing and maintenance of facilities used in transmission of gas, to safeguard life or limb, health, property and public welfare and to provide that adequate service will be maintained.

Section 107 of Exhibit No. 1, considered by the staff to be the real heart of its proposal, requires each utility to adopt and file with this Commission standards and specifications for material, equipment and procedures to be used in fabrication, installation, testing, maintenance and operation of transmission systems. Such provision, according to the staff witness, would allow the management of each utility to establish, within the limitations of the minimum requirements specified in Exhibit No. 1, the standards and specifications best suited to the particular utility. The staff witness envisioned a filing procedure similar to that now employed for utility tariffs.

No party to the proceeding, other than the staff, recommended adoption of a general order in the nature and form of Exhibit No. 1.

Respondents generally were opposed to the staff proposal claiming:

1. It covers only gas transmission pipelines;
2. It is not a self-contained document;
3. It contains uncertain and cumbersome reporting requirements;
4. It would put an excessive administrative burden upon the Commission and the staff;
5. It fails to provide standards for qualification by the Commission of proposed procedures and materials;
6. Some of its provisions are uncertain, ambiguous, or confusing;
7. Some of its provisions would increase rather than decrease hazards to the public;
8. Some of its provisions would conflict with the requirements of permit issuing bodies;
9. Some of its provisions impose conditions that are impossible to perform;
10. Some of its provisions impose unnecessary restraints; and
11. Some of its provisions impose upon the utilities an additional expense that is not commensurate with any improvement in service or safety.

General Order Presented by P.G.& E. (Exhibit No. 39)

The general order presented by Pacific Gas and Electric Company was a restatement of the staff proposal deleting and revising certain rules and adding others, but was not recommended by that utility. Like the staff proposal, Exhibit 39 contains ten chapters and appendices A through H and is limited in scope to transmission pipeline systems which are designed to operate at hoop stresses of 20 percent or more of the specified minimum yield strength of the pipe used in the systems. One of the more significant differences

between the staff proposal and the general order presented by Pacific Gas and Electric Company is that the staff proposal requires each utility to adopt and file with the Commission standards, specifications and procedures whereas Exhibit No. 39 requires adoption by the utility, but not filing of such specifications. There are also differences in a number of specific rules including those related to cover requirements, welding, purging, testing, odorization, and reporting.

No party to the proceeding recommended adoption of Exhibit No. 39.

General Order Presented by Pacific Lighting Group (Exhibit No. 6)

Essentially, the general order presented by the Pacific Lighting group is Section 8 of the American Standard Code for Pressure Piping, 1958 edition, published by The American Society of Mechanical Engineers, but with some modifications. The code is designated ASA B 31.8 - 1958 and covers the design, fabrication, installation, inspection, testing, and the safety aspects of operation and maintenance of gas transmission as well as distribution systems.

The record contains considerable evidence on the history and development of this ASA Code, the 1958 edition of which contains a foreword, general provisons and definitions and seven chapters as follows: (1) Materials and Equipment, (2) Welding, (3) Piping System Components and Fabrication Details, (4) Design, Installation and Testing, (5) Operating and Maintenance Procedures Affecting the Safety of Gas Transmission and Distribution Facilities, (6) Miscellaneous, (7) Appendices.

The principal modifications made in the ASA Code by Exhibit No. 6 include: (1) The making mandatory of certain non-mandatory portions of the ASA Code; (2) the requirement that Commission authorization be obtained before any changes may be made in various standards and specifications which are adopted by reference in the ASA

Code and which were in effect on January 1, 1959; (3) the provision that there shall be no deviation from the prescribed standards without Commission authorization; (4) more stringent requirements on depth of cover, miter joints and wrinkle bends, pipe bends, weld inspection and welder qualification, odorization, and strength testing; and (5) making the specifications for pipe-type and bottle-type holders conform with provisions of General Order No. 94-A.

Findings and Conclusions

Based upon the evidence of record, the Commission makes the following findings and conclusions:

1. An appropriate general order relating to gas piping systems is required to promote and safeguard public health and safety and to promote the maintenance of adequate gas service to the public and is in the public interest.

2. There is merit in the position of the respondents and certain other parties that any safety rules that are promulgated provide for both gas transmission and gas distribution piping systems.

3. The form of general order presented by the Pacific Lighting group (Exhibit No. 6) but modified in certain details is appropriate.

4. Additional provisions of ASA B 31.8 - 1958 should be made mandatory rather than left optional including Sections 821.3, 826.1, 827.1, 828.1, 829.9(d), 851.1, 851.2, 851.3, 851.4, and 851.5.

5. The suggestions of the City of Los Angeles that statutory requirements not be relieved by the general order and that standards of construction for pipelines in Class 3 and Class 4 locations be made mandatory inside incorporated areas of municipalities regardless of the concentration of development therein appear reasonable.

6. An appropriate procedure for keeping the general order up-to-date is essential.

7. Public utilities serving or transmitting gas bear a great responsibility to the public respecting the safety of their facilities and operating practices.

8. 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 promulgation of precautionary safety rules does not remove or minimize the primary obligation and responsibility of respondents to provide safe service and facilities in their gas operations. Officers and employees of the respondents 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.

9. The rules governing design, construction, testing, maintenance, and operation of gas transmission and distribution piping systems set forth in the attached General Order, Appendix A, are reasonable and are necessary to and will promote public safety in the construction and operation of gas piping systems and also will promote the furnishing of adequate gas service to the public in California.

10. An order should be issued adopting the general order attached hereto as Appendix A.

O R D E R

Public hearings having been held in the above-entitled investigation proceedings, evidence having been received and considered, the matter having been submitted for decision, the Commission being advised thereon and basing its order upon the findings and conclusions contained in the foregoing opinion,

IT IS ORDERED that:

1. General Order No. 112 is hereby adopted, established and promulgated to read as shown in Appendix A, attached to this order and by reference is made a part hereof, to be effective on and after July 1, 1961.

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

3. All gas corporations under the jurisdiction of this Commission shall comply with the terms and provisions of said General Order No. 112 on and after its effective date.

4. The Commission's investigation herein, Case No. 6352, be and it hereby is discontinued.

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

Dated at San Francisco, California, this 28th day of December, 1960.

[redacted]

Commissioners

I dissent. Grunsky
Therefore will be filed later.

[redacted]

APPENDIX A

GENERAL ORDER NO. 112

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 December 28, 1960; Effective January 17, 1961

Decision No. 61269, Case No. 6352.

GENERAL ORDER NO. 112

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

TABLE OF CONTENTS

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".

Sec. 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.

Sec. 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.

Sec. 104 INTENT

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 up-rating 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.

Sec. 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.

Sec. 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.

Sec. 107 COMPLIANCE WITH ASA CODE

107.1 Gas transmission and distribution facilities shall be constructed and operated in compliance with the provisions of Section 8 of the American Standard Code for Pressure Piping, known as the American Standard Code for Gas Transmission and Distribution Piping Systems, ASA B 31.8 - 1958, and in compliance with the further requirements of the additional rules herein prescribed.

107.2 Where there is any conflict between the provisions of ASA B 31.8 - 1958 and any rule specifically set forth herein, the latter shall govern, and ASA B 31.8 - 1958 shall be deemed to have been modified, amended, or revised to comply with the provisons 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 ASA B 31.8 - 1958 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 January 1, 1959, 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 ASA B 31.8 - 1958 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 ASA CODE

Sec. 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.

Sec. 202 GENERAL PROVISIONS

202.1 The following provisions of ASA B 31.8 - 1958 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 5, delete "may" and change "be advisable" to "is required";
827.1, line 5, delete "may" and change "be advisable" to "is required";
828.1, line 4, change "should" to "shall";
829.9(d), line 1, change "recommended" to "required";
841.21, line 6, change "should" to "shall" and delete "preferably" in line 4;
841.222, line 4, change "should" to "shall";
841.23, line 2, change "may" to "shall";
841.241(a), line 6, change "recommended" to "required";
841.241(c), line 1, change "should" to "shall";
841.271, line 2, change "should" to "shall";
841.273(a), line 1, change "should" to "shall";
841.273(b), line 2, change "should" to "shall";
841.283, line 1, change "should" to "shall";
841.284, line 6, change "suggested" to "required";
841.285(a), line 5, change "should" to "shall";
841.285(b), line 5, change "should" to "shall";
850.4, line 2, change "should" to "shall";
851.1, line 2, change "should" to "shall";
851.1, line 10, change "should" to "shall";
851.2, line 2, change "should" to "shall";
851.2, line 6, change "should" to "shall";
851.3, line 4, change "should" to "shall";
851.3, line 8, change "should" to "shall";
851.4, line 1, change "should" to "shall";
851.4, line 6, change "should" to "shall";
851.5, line 1, change "should" to "shall";
851.5, line 3, change "should" to "shall";
851.5, line 6, change "should" to "shall";

Sec. 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.

Sec. 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.

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.

Sec. 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 nondestructive 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 pipeline.
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.

Sec. 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.

Sec. 208 ODORIZATION

208.1 All combustible gases transported by utility pipeline 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 one-fifth 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
Nonsoluble 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:

Designed to maintain reasonably uniform level of odor in the gas.

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

Sec. 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 of 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.

Sec. 210 CLASSIFICATION OF LOCATIONS

210.1 The provisions of ASA B 31.8-1958 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 ASA B 31.8 - 1958 permitting lower standards for pipelines within incorporated areas depending upon the concentration of development therein.

Sec. 211 PIPE-TYPE AND BOTTLE-TYPE HOLDERS

211.1 Section 844 of the American Standard Code for Gas Transmission and Distribution Piping Systems (ASA B 31.8 - 1958) is herewith amended in its entirety to conform to General Order No. 94-A of the Commission.

Sec. 212 MAXIMUM ALLOWABLE OPERATING PRESSURE FOR LOW PRESSURE DISTRIBUTION SYSTEMS

212.1 Section 845.43 of the American Standard Code for Gas Transmission and Distribution Piping Systems (ASA B 31.8 - 1958) is herewith amended in its entirety to conform to General Order No. 58-A of the Commission.

Sec. 213 LOCATION OF SERVICE SHUT-OFFS

213.1 Section 847.13 of the American Standard Code for Gas Transmission and Distribution Piping Systems (ASA B 31.8 - 1958) is herewith amended in its entirety to conform to General Order No. 58-A of the Commission.

Sec. 214 ABANDONING OF DISTRIBUTION FACILITIES

214.1 Section 852.3 of the American Standard Code for Gas Transmission and Distribution Piping Systems (ASA B 31.8 - 1958) is herewith amended in its entirety to conform to General Order No. 58-A of the Commission.

Sec. 215 PROCEDURES FOR MAINTAINING PIPE-TYPE HOLDERS IN SAFE OPERATING CONDITION

215.1 Section 854 of the American Standard Code for Gas Transmission and Distribution Piping Systems (ASA B 31.8 - 1958) is herewith amended in its entirety to conform to General Order No. 94-A of the Commission.

CHAPTER III

RECORDS

Sec. 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.

Sec. 302 SPECIFICATIONS

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

Sec. 303 OPERATING AND MAINTENANCE PROCEDURES

303.1 Plans covering operating and maintenance procedures, including maximum actual 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 actual operating pressure recorded by the company in accordance with this section.

CHAPTER IV

REPORTS

Sec. 401 GENERAL

401.1 In order that the Commission may be informed concerning the operation and 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% 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.

c. Maximum allowable operating pressure for which the line is being constructed.

d. Fluid and pressure to be used during prove strength testing.

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

a. Description and reason for the proposed reconstruction.

b. Specifications covering the pipe selected for installation.

c. Maximum allowable operating pressure for which the line is being constructed.

d. Fluid and pressure to be used during prove strength testing.

401.4 Change in Maximum Allowable Operating Pressure Not later than 30 days subsequent to an increase or 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.

Sec. 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.

APPENDIX B

LIST OF APPEARANCES

FOR RESPONDENTS:

Gray, Binkley & Pfaelzer, by John T. Binkley, for Pacific Lighting Gas Supply Company, Southern California Gas Company and Southern Counties Gas Company of California; C. H. McCrea, for Southwest Gas Corporation; Chickering & Gregory, by Sherman Chickering and C. Hayden Ames, and H. G. Dillin, for San Diego Gas & Electric Company; F. T. Searls, John C. Morrissey, Philip A. Crane, Jr., and Warren S. Hyde, for Pacific Gas and Electric Company; John A. Randall, and Rollin E. Woodbury, for Southern California Edison Company; Lloyd E. Cooper, for California Pacific Utilities Company.

INTERESTED PARTIES:

Walter W. Offner, for Golden Gate Chapter Society of Professional Engineers; T. M. Chubb, by Thomas V. Tarbet, for Department of Public Utilities and Transportation, City of Los Angeles; William L. Knecht, for California Farm Bureau Federation; V. L. White, for State Division of Industrial Safety; Sherrill D. Luke, for City of Richmond; Douglas J. Legg, for Western Oil & Gas Association; and W. F. Dickinson and E. P. Valby, for themselves.

FOR COMMISSION STAFF:

Mary Moran Pajalich and Robert O. Randall.

LIST OF WITNESSES

Evidence was presented on behalf of respondents by:

H. A. Proctor, C. T. Schweitzer, W. A. Saylor, F. S. G. Williams, and Roscoe D. Smith.

Evidence was presented on behalf of interested parties by: Thomas V. Tarbet.

Evidence was presented on behalf of the Commission staff by: Louis W. Mendonsa.

POOR QUALITY DOCUMENT

POOR QUALITY DOCUMENT

POOR QUALITY DOCUMENT

C 6352 - 6 / [redacted] 7

It is with some reluctance that I dissent in this matter. However, I am impressed with the staff memorandum to the Commission and adopt the substantial portion thereof as the grounds of my dissent, to wit:

"Section 107 of the Appendix in the proposed order adopts an industry standard known as ASA Code B31.8-1958 (American Standards Association). The record shows (Tr. 65, line 7 through Tr. 66, line 22) that within this ASA Code there are contained 102 references. The record further shows (Tr. page 57, line 22 through Tr. 58, line 23) that many of these reference specifications are not immediately available to the Commission or its staff. Also, the record indicates (Tr. 262, line 24 through Tr. 263, line 14) that only 'about 25' of these references are appropriate for the Commission's consideration in this proceeding. It is further shown in the record (Tr. 66, line 15 through line 17) that the maintenance of a frozen list of codes as provided in Sec. 107 of the Appendix will present an administrative problem.

"The ASA Code contains many provisions with conditional statements such as 'shall consider', 'shall establish', 'might be required', 'whenever it is practicable'. Section 202.1 of the Appendix corrects some of these although additional adopted sections of the ASA Code still contain such statements. (e.g., Secs. 831.21(k), 831.42 C, 831.42 G, 831.54, and 855.3)

"The order instituting this investigation stated that it was for the purpose of considering transmission pipelines. The proposed order will cover both transmission and distribution lines. Some material relating to distribution systems was presented in the record by two respondents and the City of Los Angeles, but not by the staff. The record (Tr. 8, line 11 through Tr. 11, line 11) shows greater need for public safety in those piping systems designed to operate with stresses approaching the strength of the pipe. The proposed order will cover in addition many classes of pipelines not subject to such stress conditions."

[redacted]

MATTHEW J. DOOLEY
Commissioner