

A meeting of the Public Service Commission was held this date. Present: Chairman Harold E. Kelley and Commissioners W. Howard Clay and Joe L. Travis.

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In the Matter of

THE REVISION OF COMMISSION GENERAL	)	
RULES GOVERNING ELECTRIC, GAS TELE-	)	
PHONE AND WATER UTILITIES (PSC:GEN-1);	)	
RULES GOVERNING TARIFFS (PSC:TAR-1);	)	
RULES GOVERNING ELECTRIC UTILITIES	)	ADMINISTRATIVE
(PSC:ELEC-1); RULES GOVERNING GAS	)	CASE NO. 128
UTILITIES (PSC:GAS-1); RULES GOVERNING	)	
TELEPHONE UTILITIES (PSC:TELEP-1); AND	)	
RULES GOVERNING WATER UTILITIES (PSC:W-1).	)	

O R D E R

For some time the Commission has had under consideration the revision of its Gas and Inspection of System Rules. These revisions were prepared by the Commission and after due notice to all the utilities affected, were presented at public hearings in the Commission's offices at Frankfort, Kentucky on the 29th day of January, 1969, the 26th day of August, 1969, the 24th day of September, 1969 and the 17th day of February, 1970.

After consideration of the comments and suggestions offered by those in attendance at said hearings, the Commission promulgated its revised regulations.

The Commission, on its own motion, ORDERS:

1. That Regulation PSC:Gas-1, consisting of Rules Governing Gas Utilities, numbered III, XIII, XIV and XVIII, attached hereto as Appendix "A" be and it hereby is adopted.

2. That Regulation PSC:Gen-1, consisting of Rule XXII Governing Inspection of Systems, attached hereto as Appendix "B" be and it hereby is adopted.

3. That Regulation PSC:Electric-1, consisting of Rule XIV Section 3-(f) Governing the Testing of Instrument Transformers, attached hereto as Appendix "C" be and it hereby is adopted.

4. That all portions of Administrative Order No. 102 not superseded by the above regulations remain as previously approved.

Done at Frankfort, Kentucky, this 22nd day of October, 1970.

By the Commission

**ATTEST:**

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Secretary

APPENDIX "A"

APPENDIX TO THE ORDER OF THE PUBLIC SERVICE COMMISSION IN  
ADMINISTRATIVE CASE NO. 128, DATED October 22, 1970.

PSC: Gas-1

Gas Rules

PSC: Gas-1-I

4. "(a) Every utility transmitting gas by any pipeline intended to be subjected to pressures in excess of 100 psig shall:

"(1) Within 90 days from the date of the effective date of these rules file with the Public Service Commission a report setting forth the respects in which such pipeline and its appurtenances conform or do not conform, as the case may be, to the standards, requirements and safeguards enumerated in these rules. Such statement shall be based upon records of the utility, including records of tests, specifications or other available data, and upon current investigations and surveys, not requiring excavation or interruption of service.

"(2) In each instance where any gas corporation required by paragraph (1) to file a report claims that it is not possible or practicable to obtain the necessary data to prepare the same, a report setting forth such claim shall nevertheless be filed within the period required by paragraph (1), and the basis for such claim shall be set forth in such verified statement.

"(3) In each instance in which the report required to be filed by this section states that any portion of such pipeline or its appurtenances does not conform to the standards, requirements and safeguards enumerated in these rules or that it is not possible or practicable to obtain the necessary data to prepare such a statement, the report shall state whether or not in the opinion of the person preparing the report, such portion of pipeline and its appurtenances is in safe operating condition.

"(b) In each instance where it is stated that such pipeline or its appurtenances or any portion thereof is in safe operating condition, the basis for such statement shall be set forth including the operating conditions under which the opinion is expressed, and such report may be accompanied by an application of the gas corporation to the Public Service Commission for an exemption from the application of the rules herein enumerated."

1. The following publications and codes are hereby adopted as standards of accepted good practice to be followed by all utilities under the jurisdiction of the Public Service Commission of Kentucky except when such codes or publications conflict with the regulations of this Commission.

(a) The 1968 edition of the American Standard Code for "Gas Transmission and Distribution Piping Systems", USAS B31.8.

(b) The 1964 edition of the American Standard Installation of Gas Appliances and Gas Piping, ASA Z21.30.

(c) The 1963 edition of the National Board of Fire Underwriters Standard, No. 59, "The Storage and Handling of Liquefied Petroleum Gases at Utility Gas Plants."

(d) "Standard Methods of Gas Testing", Circular No. 48, National Bureau of Standards.

(e) "Testing Large Capacity Rotary Gas Meters", Research Paper No. 1741, National Bureau of Standards Journal of Research, September, 1946.

(f) "Standard Method Test for Calorific Value of Gaseous Fuels by the Water-flow Calorimeter", American Society for Testing Materials, Standard D 900-5E.

## 2. REPORTS AND RECORDS OF PROPOSED CONSTRUCTION.

At least 30 days prior to the construction or major reconstruction of any gas pipeline intended to be subjected to pressure in excess of 100 psig, or 20% of minimum yield strength, whichever is lower, a report shall be filed with the Public Service Commission setting forth the specifications for such pipeline.

Every gas utility shall, on the 15th day of each month, submit a report to the Public Service Commission setting forth the progress of such construction or major reconstruction as of the end of the preceeding month.



Before any gas pipeline or main is placed in operation intended to be subjected to pressures in excess of 100 psig, or 20% of minimum yield strength, which ever is lower, a report shall be filed with the Public Service Commission certifying the maximum pressure to which the line is intended to be subject and also certifying that the pipeline has been constructed and tested in accordance with the requirements of the rules herein prescribed, and a further report shall be filed within 60 days thereafter including the results of all tests made pursuant thereto. No gas pipeline or main shall be operated at pressures in excess of the pressure for which it was certified to the Public Service Commission.

RECORDS. The responsibility for the maintenance of necessary records to establish that compliance with these Rules and Regulations has been accomplished rests with the utility. Such records shall be available for inspection at all times by the Commission or the Commission's Staff.

3. The USASI B31.8 - 1968 being the presently effective code the Commission hereby adopts the following modifications and changes thereto:

(1) 812.2 - Add the sentence "Field Die Stamping is prohibited." to the end of the paragraph.

(2) 821.3 - Delete first sentence and substitute "Each Utility shall establish and qualify a welding procedure for sound and ductile welds."

(3) 828.1 - On Line 1 of paragraph change "should" to "shall".

(4) 828.2 - In Line 1, insert, after the word "by", the words "both visual and ..".

(5) 828.2 (b) - Delete paragraph and substitute the following for the deleted material.

"The following minimum percentage of welds selected by the operating company on a random basis from each day's construction shall be examined by a competent inspector over the entire circumference of the pipe:

10% of welds in Class 1 locations  
13% of welds in Class 2 locations  
40% of welds in Class 3 locations  
100% of welds in Class 4 locations  
100% of welds in major or navigable river crossings, major highway crossings, railroad crossings and all tie-in sections."  
In addition, 100% of welds within 500 feet of buildings intended for human occupancy shall be examined.

(6) 828.2 (c) - In Line 1, delete remainder of sentence after the word "inspected" and substitute "by radiographic and other non-destructive tests shall meet the standards of acceptability of API Standard 1104 for pipelines or Section 9 of the ASME Boiler and Pressure Vessel Code for pressure vessels in pipeline systems."

(7) 829 - Delete Section 829 in its entirety.

(8) 831.11 (b) - In the 6th line delete "may be" and substitute "if", and delete "at pressures not ..." and substitute "shall not be operated at pressures . . . "

(9) 831.33(b) - Delete and substitute the following paragraph:

"(b) Threaded taps in cast iron pipe 6-inches and smaller in diameter are prohibited for new construction except for the following:

- (1) Existing threaded openings may be used for replacement service line main connections when careful inspection shows there are no cracks in the main immediately surrounding the existing threaded opening.
- (2) Threaded openings used for gas control equipment (i.e., bagging off a section of main) which are closed after use by means of a threaded plug or reinforcing sleeve.

Threaded taps in cast iron pipe 8-inches and larger in diameter are permitted without reinforcement to a size not more than 25% of the nominal diameter of pipe.

(10) 841.011 (a) - Change "12" to "5".

(11) 841.011 (b) - Change "20" to "10".

(12) 841.012 - On line 6, change "20" to "10" and, on line 7, change "12" to "5".

(13) 841.013 - In line 2, insert "legally" after "areas". In lines 3 through 7, delete from ", at" to "and". Delete last sentence.

Thus changed, the paragraph reads:

"Class 3 Locations: Class 3 locations include areas legally subdivided for residential or commercial purposes where a Class 4 classification is not called for." (Underscored matter indicates italics.)

(14) 841.014 - Delete entire paragraph and substitute the following:

"Class 4 Locations: Class 4 locations include each city and incorporated village and the adjacent areas in which there is a substantially equivalent population density or in which a significant increase in population density can reasonably be expected." (Underscored matter indicates italics.)

(15) 841.161 - Add as first line "Pipelines and mains shall be buried where practical".

(16) 841.161 - Add as (b).

"Whenever conditions permit gas pipelines operating at 100 PSI or greater within Class 4 locations shall be laid with a cover of not less than 30 inches above the top of the pipe."

(17) 841.162(a, and (b) - On lines 1 and 2 change "There should be at least 6 inches and 2 inches clearance wherever possible" to "Whenever conditions permit, there shall be at least 12 inches clearance".

(18) 841.173 - Delete entire title and paragraph and substitute the following:

"Corrosion control. (a) Every gas utility shall make a proper investigation to determine whether any gas pipeline to be operated requires corrosion protection and if so required, a recognized method or combination of methods shall be followed including coating with protective material and the application of cathodic and/or anodic protection in accordance with the requirements of the NACE Standard, RP-01-69, Control of External Corrosion on Underground or Submerged Metallic Piping Systems.

(b) Whenever gas corporation finds upon such investigation that corrosion protection of gas pipelines is not needed, such corporation shall submit to the Public Service Commission's a report setting forth good and sufficient reasons why such protection is not required, such report to include the results of soil tests and other supporting data.

(c) Whenever pipe coating is applied, the following additional precautions shall be taken:

(1) Tests and inspections shall be made before backfill to insure that the coating is adequate and satisfactory.

(2) During backfill, precautions shall be taken to insure that the coating is not damaged.

(3) On completion of backfill, proper tests shall be made to ascertain that the coating is adequate and satisfactory. (See 841.26).

(d) In addition to the foregoing, every gas utility shall make periodic inspections and tests of any gas pipeline at reasonable intervals to determine whether or not the pipe metal is adequately protected against corrosion."

(19) 841.222 - Add the words "and mains" after "pipelines" in the 2nd line. Beginning with the word "to" in the 2nd line, delete the words through "strength" in the 4th line. Change "should " to "shall" in Line 4, and delete "either" from Line 5 and change "or" to "and" in Line 6.

(20) 841.241(a) - On line 7, change "recommended" to "required".

(21) 841.271 - On line 2, change "should" to "shall".

(22) 841.283 - On line 2, change "should" to "may".

(23) 841.284 - On line 7, change "suggested" to "required".

(24) 841.285 (a) and 841.285 (b) - Delete. Substitute following as 841.285 (a):

"When a pipeline or main is placed in service or abandoned a slug or inert gas shall be introduced to prevent the formation of an explosive mixture at the interface between gas and air. Other suitable precautions may be taken in the case of pipelines having a diameter four inches or less. Nitrogen or carbon dioxide can be used for this purpose."

(25) 841.285(c) - Renumber as 841.285(b). On line 4, delete "air", and, on line 5, insert "a slug of" after "with".

(26) 841.285 (d) - Renumber as 841.285(c). At the very end of the last sentence, add "and appropriate precautions shall be taken."

(27) 841.31 - At the very end, add "However, welds on tie-in sections of pipe shall be inspected and tested as required in 828.2,"

(28) 841.412(a) - On line 2, delete "either" and on line 3 change "gas" to "water". On line 3 change "1.1" to "1.25". Delete from "or" on line 4 through "pressure" on line 5.

(29) 841.412(b) - On line 2, delete "either", insert "or water" after "air" and change "1.25" to "1.50". Delete from "or" on line 3 through "pressure" on line 5.

(30) 841.412 (c) - On line 3, change "1.4" to "1.50".

(31) 841.412 (d) - On table, as follows:

"TABLE 841.412 (d)

Test Requirements for Pipelines and Mains to Operate at Hoop Stresses of 30% or More of the Specified Minimum Yield Strength of the Pipe

1	2	3	4
Location Class	Permissible Test Fluid	Prescribed Test Pressure Minimum	Maximum
1	Water Air	1.25 x m.o.p. 1.25 x m.o.p.	None 1.25 x d.p.
2	Water Air	1.50 x m.o.p. 1.50 x m.o.p.	None 1.25 x d.p.
3	Water	1.50 x m.o.p.	None
4	Water	1.50 x m.o.p.	None

m.o.p. - maximum operating pressure  
d.p. - design pressure

Note: If an operating company decides that the maximum operating pressure will be less than the design pressure a corresponding reduction in prescribed test pressure may be made as indicated in Column 3. However, if this reduced test pressure is used the maximum operating pressure cannot later be raised to the design pressure without retesting the line. See 845.22 and 845.23"

(32) Add as 841.412(e) - "Test pressure shall be maintained until the pressure has stabilized as far as possible in all portions of the test sections giving due consideration to changes in ambient temperatures. In no event shall the duration of the test be less than 24 hours following such stabilization except that, in the case of a length of pipeline, main or piping which has not been backfilled prior to the test where, throughout its entire length, its entire circumference can be readily examined visually for the detection of leakage, the duration of the test shall be not less than 4 hours following such stabilization."

(33) Add as 841.412(f) - "Where water is utilized as the test medium, adequate provisions shall be made for disposal of the water and steps shall be taken to guard against contamination".

(34) 841.413(b) - Delete in entirety.

(35) 841.413(c) - On line 1, change "1.1" to "1.50". Delete from "and" on line 2 through "apply" on line 4. Add "precautions shall be taken to protect public".

(36) 841.416 - Delete in entirety.

(37) 841.42 - Change as shown below (underscored matter indicates italics):

"Tests required to prove strength for pipelines and mains to operate at less than 30% of the specified minimum yield strength of the pipe, but in excess of 100 psi. Steel piping that is to operate at stresses less than 30% of the specified minimum yield strength shall be tested in accordance with Table 841.412 (d), except that air may be used as the test medium within the maximum limits set in Table 841.421."

TABLE 841.421

Maximum Hoop Stress Permissible During Test Percent  
of Specified  
Minimum Yield Strength

Location Class	1	2	3	4
Test Medium				
Air	75	75	50	40

(38) 842.431(c) - In Line 1, change "should" to "shall".

(39) 848.4 - Add "(all thread)" after the word "close" in Line 6.

(40) 849.152(b) - Delete "the" from Line 3, and change "lesser" to "greater" on Line 4.

(41) 849.221(a) - In Line 2, change "should" to "shall".

(42) 850.5 - Delete "of Pipelines" from title, and delete "pipelines" from Line 2.

(43) 850.8 - Add new paragraph:

"Location Information

All utilities subject shall, upon request, provide information as to location of its underground facilities to any other party contemplating underground construction, or work, in the vicinity thereof. If at any time damage or interruption to existing facilities should occur, said other party shall immediately report such damage to the party owning such damaged or interrupted facilities."

(44) 851.2 - Renumber as 850.9. In the title substitute the word "Control" for "of Pipelines", and in Line 1 substitute the word "annual" for "periodic".

(45) 851.3 - Renumber as 850.10. In the title substitute the word "Control" for "of Pipelines", and in Line 4 and Line 9 change "should" to "shall".

(46) 851.4 - Renumber as 850.11. In Line 1 insert after word "pipeline" the words "main or section of distribution system".

(47) 852.22 - 2nd Paragraph - Line 1 - change the word "recommended" to "required".

(48) 852.22(a) - In Line 2, change "should" to "shall".

After the word "manholes" in Line 4 add", and where access is not denied at inside basement walls or public and commercial buildings located adjacent to gas mains and service lines, . . .".

In Line 8, change "should" to "shall".

(49) 852.22(b) - In Line 1, after the word "be" insert the word "repaired". Delete remainder of sentence.

In Line 7, change "should" to "shall" and "reconditioned" to "abandoned".

(50) 852.3 - Add new title "Discontinuance of Distribution Facilities."

Change paragraph numeral of "852.3" to "852.31" and change title to "Abandonment".

Add new paragraph 852.32:

"Inactive Service Lines

(a) Service lines which have remained inactive for a period of three years shall be disconnected from gas supply at or prior to the property line of the property intended to be served. Such line shall be tested in the same manner as new service lines before being reinstated.

(b) The open end of the disconnected line shall be effectively sealed and the need for purging the disconnected service to prevent the development of potentially hazardous condition shall be evaluated and appropriate action taken."

(51) 852.3(a) - In Line 8, insert "and appropriate measures taken" after the word "considered".

(52) 853.2 - In Line 2, delete "except rupture disks" and insert the words "all devices except rupture disks" before the word "shall" in Line 3.

(53) 855.1 - In Line 4, insert "at least annual" before the word "periodic".

(54) 855.3 - In Line 1, change the word "practicable" to the words "feasible and practical".

In Line 2, change "shoul" to "shall".

In Line 6, after the word "feasible" insert "and practical".

In Line 8, change "should" to "shall".

In Line 15, insert "adequate" after the word "provide".

(55) 856.2 - In Line 5, insert "(at least once each year)" after the word "intervals". At the end of the paragraph add the sentence "A similar inspection shall be made of distribution curb cock valve boxes one year after installation where the alignment may be subject to movement and at meter change intervals thereafter."

(56) 857 - In Line 1, delete "Regularly scheduled" and capitalize "Inspections".

In Line 3 and Line 4, delete "and having a volumetric internal content of 200 cubic feet or more to . . ." and replace with and having a volumetric internal content of 100 cubic feet or more at the time the equipment enclosed there is inspected. The inspection shall . . ."

In Line 5, change "it" to "the vault".

In Line 7, insert the words "prior to entry" after the word "vault."

(57) 861 - Delete entire paragraph and substitute:

See PSC Rule No. VI.

(58) Appendix A - Change the reference to API 1104 from the "8th Ed. March 1964" to the "11th Ed. March 1968".

(59) Appendix A - Add reference to the National Association of Corrosion Engineers' Standard, RE-01-69 Control of External Corrosion on Underground or Submerged Metallic Piping Systems.



4. Relief valves and vents. (a) All regulator stations located on gas pipelines shall be provided with a sufficient number of relief valves or other protective devices to insure that the complete failure of one or more regulator stations shall not impose pressure on any part of the system beyond those which it is designed for or protected against; such installations shall be made with due regard to the hazards to life and property by the venting of gas to the atmosphere in congested areas; such relief valves or other protective devices shall be maintained by annual tests to determine that they are in proper operating condition with an overhauling or replacement thereof if necessary. Design data and/or test results of relief capacity shall be available to the Commission on request.

(b) Manual pressure relieving devices or vents shall not be operated under circumstances which would create a hazard to persons or property.

5. Venting of customer's service regulators.

Each gas utilities' customers service regulator installed indoors shall be vented to the outside atmosphere and shall have a vent pipe sized no smaller than the manufacturer's vent connection built into the regulator.

6. Exterior shut-off valves.

Exterior shut-off valves shall be installed on all lines entering and leaving regulator stations for use in an emergency to stop the flow of gas, such valves to be installed at an accessible point and location where such valves can be operated in case of an emergency but in any event at least 40 feet from the regulator station if operation is below 60 psig. if operating above 60 psig. the valve shall be placed at least 100 feet from the station; if operated above 100 psig. the valve location shall be at least 200 feet from the station. A check valve may be used as the exterior shut-off valve on the downstream line in lieu of other valve if 40 feet from regulator. No connection shall be made between the inlet and the outlet shut-off valves, except the connections to the regulating station. A regulating station may contain metering equipment or other similar apparatus. The shut-off valve may be a sectionalizing valve.

For the purpose of this rule the maximum pressure possible on the regulator station shall be controlling. Such valve shall be operated, tested and checked at least once a year to insure proper operating condition.

7. Proximity to Buildings

Gas pipe lines operated at 100 psig or greater shall not be installed within 500 feet of any building intended for human occupancy unless line construction within 300 feet of the vicinity of the building complies with Class 4 construction as set out in USAS B31.8.

"PSC VI ODORIZATION.

1. Any gas distributed to customers through gas mains or gas services, used for domestic purposes or in compressor plants or transmitted through Class 3 or Class 4 locations shall have a distinctive odor of sufficient intensity so that the presence of the gas may be detected down to a concentration in air of one per-cent by volume (approximately twenty percent of the lower explosive limit) to normal or average olfactory senses of a person coming from fresh ungasified air into a closed room, or by appropriate instruments. Whenever necessary to maintain this level of intensity, a suitable odorant shall be added in accordance with the specifications in this rule.

2. Odorants in the concentrations used shall be:  
Harmless to humans.

Noncorrosive to steel, iron, brass, copper and leather.

Not soluble in water to an extent greater than 2.5 parts by weight of odorant to 100 parts by weight of water.

3. Odorizing equipment shall be designed to maintain a reasonable uniform level of odor in the gas.

4. Each utility shall make periodic checks to determine that a proper level of odorization is maintained and keep records of same."

PSC: Gas-1-XIII ACCURACY REQUIREMENTS FOR METERS.

1. All tests to determine the accuracy of registration of any gas meters shall be made by a qualified meter man and with suitable facilities.

A. Positive Displacement Meters.

(1) Before being installed for the use of any customer, every positive displacement gas meter, whether new, repaired or removed from service for any cause shall be in good order and shall be adjusted to be correct to within one-half of one percent, plus or minus, when passing gas

at approximately 20% and 100% of the rated capacity of the meter as given by the manufacturer at .5" H2O differential. A pilot test to determine that the meter will register at  $\frac{1}{2}$  of 1% of the rated capacity shall be made before placing meters in service.

(2) Meters removed from service for any reason shall be tested for accuracy as soon as practical after removal. An "as found" test shall be made at a flow rate of approximately 20% and 100% of the rated capacity at .5" H2O differential and results of said tests algebraically averaged to determine the accuracy. If the error is less than 2% this shall be reported as the "as found" test. If the error is more than 2% two additional tests shall be made at 20% and 100% and the average of the three tests shall be reported as the "as found" test. The three test procedures shall apply to any customer request test, complaint test, or bill adjustment made on the basis of the meter.

#### B. Large Capacity Meters.

1. All meters other than positive displacement meters, regardless of type, shall be tested at approved intervals by the utility meter man using flow provers or other approved methods either in the shop or on location of use at the option of the utility with the approval of the Commission of facilities and methods used.

(a) The accuracy of these meters shall be maintained as near 100% as possible.

(b) Test ranges and procedures shall be as prescribed in adopted standards or approved by the Commission.

2. All meter installation shall be inspected for proper design and construction and all instruments regulators and valves used in conjunction with the installation shall be tested for desired operation and accuracy before being placed in service. This inspection shall be made by a competent meterman employed by the utility or by a competent person employed by the manufacturer of the meter installation. Test data as to conditions found, corrected if in error, and conditions as left shall be made available for inspection by the Commission. Subsequent test results shall be a portion of regular meter test reports to the Commission by the Utility.

PSC: Gas-1-XIV PRESSURE GAUGES

1. Each utility shall keep continually in use on its distribution system or systems one or more accurate recording pressure gauges at each point of supply to the system or systems. These gauges must be located at such point or points and in such a manner as to give a continuous record of the gas pressure and character of service being furnished.

2. In addition to the recording pressure gauges required in Section 1 of this rule, all utilities distributing gas shall provide themselves with one or more portable recording pressure gauges with which pressure surveys shall be made in sufficient number to indicate the service furnished and to satisfy the Commission of the utility's compliance with pressure requirements.

3. All recording pressure gauge charts shall be preserved and filed in a systematic manner and each chart shall show the date and location when the record was made. All charts must be kept on file by the utility for a period of at least two years.

PSC: Gas-1-XVI ALLOWABLE VARIATIONS OF STANDARD SERVICE PRESSURE

1. The variations of standard pressure as established under the preceding rule shall not exceed the following under normal operating conditions:

<u>Established Standard Service Pressure</u>	<u>Minimum Pressure Allowable</u>	<u>Maximum Pressure Allowable</u>
4 oz.	2 oz.	6 oz.
6 oz.	3 oz.	9 oz.
8 oz.	4 oz.	12 oz.

2. A utility supplying gas shall not be deemed to have violated Section 1 of this rule, if it can be shown that variations from said pressures are due to:

(a) Use of gas by the customer in violation of contract of the rules of the utility.

(b) Infrequent fluctuations of short duration due to unavoidable conditions of operation.

3. Allowable variations in Standard Pressure other than those covered by Section/ of this rule will be established by the Commission when application is made and good cause shown therefor.

4. The gas pressures required above shall be maintained at the outlet of the meter in such a manner to provide safe and efficient utilization of gas in properly adjusted appliances supplied through adequately sized customer's facilities.

PSC: Gas-1-XVIII

#### Meter Testing Facilities and Equipment

##### 1. Meter Shop

Each utility, unless specifically excused by the Commission, shall maintain a meter shop for the purpose of inspecting, testing, and repairing meters. The shop shall be open for inspection by authorized representatives of the Commission at all reasonable times, and the facilities and equipment, as well as the methods of measurements and testing employed, shall be subject to the approval of the Commission.

The meter shop shall consist of a repair room or shop proper and a proving room. The proving room shall be designed so that the meters and meter testing apparatus are protected from excessive changes in temperature and other disturbing factors. The proving room or the entire meter shop shall be air conditioned if necessary to achieve satisfactory temperature control.

The proving room shall be well lighted and preferably not on an outside wall of the building. Temperature changes in the room shall be no greater than five degrees F over a 24 hour period. Temperatures at any one point in the room shall not vary from a simultaneous temperature at any other point in the room by more than one degree F.

##### 2. Working Standards

Each utility, unless specifically excused by the Commission, shall own and make proper provision to operate at least one approved belltype meter prover, preferably of ten cubic feet capacity, but in no case of less than five cubic feet capacity. The prover shall be

equipped with suitable thermometers and other necessary accessories, and such equipment shall be maintained in proper condition and adjustment so that it shall be capable of determining the accuracy of any service meter, practical of test by it, to within one half of one percent plus or minus.

The prover shall be accurate to within .3 of one percent at each point used in testing meters.

The prover shall not be located near any radiator, heater, steam pipe, or hot or cold air duct. Direct sunlight shall not be allowed to fall on the prover or the meters under test.

During conditions of satisfactory operation the temperature of the air in the prover shall be within one degree F of the ambient temperature, and the temperature of the oil in the prover shall not differ from the temperature of the ambient air by more than one degree F.

The meters to be tested shall be stored in such manner that the temperature of the meters is substantially the same as the temperature of the prover. In order to achieve this the meters shall be placed in the environment of the prover for a minimum of about five hours, and preferably overnight.

3. All testing instruments and other equipment shall at all times be accompanied by a certificate giving the date when it was last tested and adjusted and must be signed by a proper authority, or a tag referring to such certificate may be attached when practicable. These certificates, when superseded, shall be kept on file in the office of the utility.

4. Sixty days after the effective date of this regulation, each utility shall advise the Commission in writing as to the kind and amount of testing equipment available.

APPENDIX "B"

APPENDIX TO THE ORDER OF THE PUBLIC SERVICE  
COMMISSION IN ADMINISTRATIVE CASE NO. 128,  
DATED October 22, 1970.

PSC:Gen-1

Inspection of Systems

RULE XXII INSPECTION OF SYSTEMS.

1. Each utility shall adopt procedures for inspection to assure safe and adequate operation of its facilities and compliance with Public Service Commission rules. These procedures shall be filed with the Commission.

2. Each electric utility shall make systematic inspections of its system in the manner set out below for the purpose of insuring that the Commission's safety requirements are being met. Such inspections shall be made as often as necessary but in no event less frequently than is set forth below for various classes of facilities and types of inspection.

At intervals not to exceed six months:

- (a) Production facilities regularly operated and manned; continuous surveillance, monitoring and inspection as a part of operating procedure.
- (b) Unmanned production facilities including peaking units not on standby status; units shall be operated and inspected and all monitoring devices shall be checked to determine that there is no evidence of abnormality.
- (c) Substations where the primary voltage is 69 KV or greater; examination for the purpose of discovering damage to or deterioration of components including structures and fences; checking of all gauges and monitoring devices.
- (d) Underground network transformers and network protectors in vaults located in buildings or under sidewalks; examination for leaks, condition of case, connections, temperature and overloading.

- (e) Electric lines operating at 69 KV or greater (including insulators, conductors and supporting facilities).

At intervals not to exceed one year:

- (a) Production facilities maintained on a standby status; also inspection and examination prior to any start up, except remotely controlled facilities.
- (b) Substations where the primary voltage is less than 69 KV but is 15 KV or greater.

At intervals not to exceed two years:

- (a) Electric lines operating at voltages of less than 69 KV (including insulators, conductors and supporting facilities).

Other Facilities:

- (a) Utility Buildings inspected for compliance with safety codes at intervals not greater than one year.
- (b) Construction Equipment inspected for defects, wear and operational hazards at intervals not greater than quarterly.

On the receipt of a report of a potentially hazardous condition made by a qualified employee or public official or by a customer:

All portions of the system (including those listed above) which are the subject of the report.

Appropriate records shall be kept by each utility to identify the inspections made, deficiencies found and action taken to correct such deficiencies.

3. Each gas utility shall make systematic inspections of its system for the purpose of insuring that the Commission's safety requirements are being met. Such inspections shall be made as often as necessary but in no event less frequently than is prescribed or recommended in the USAS Code B31.8-1968, for the various classes of



facilities as defined in said Code, in accordance with the inspection procedures described therein.

The following maximum time intervals are prescribed for (1) certain inspections provided for in USAS B31.8-1968 with respect to which intervals are not specified and (2) certain additional inspections not provided for in such code.

At intervals not to exceed one year:

- (a) Production wells, storage wells and well equipment; visual inspection and examination of all exterior components.
- (b) Pipelines. - See 805.62 of B31.8 Code.
- (c) Pressure limiting stations, relief devices and pressure regulating stations, including vaults.
- (d) Those portions of distribution mains and appurtenances which are installed in locations or on structures where abnormal movement or abnormal external loading could cause failure or leakage.
- (e) Distribution system valves, the use of which may be necessary for the operation of the distribution system.
- (f) The curb box on service shall be inspected for accessibility.

Other Facilities:

- (a) Utility Buildings inspected for compliance with safety codes at least annually.
- (b) Construction Equipment inspected for defects, wear and operational hazards at least quarterly.

At intervals not to exceed the periodic meter test intervals:

- (a) Individual residential customer service regulators, vents and relief valve vents shall be checked for satis-

factory operation.

At intervals of meter change:

- (a) The curb box on service shall be inspected for operable condition.

On the receipt of a report of a potentially hazardous condition made by a qualified employee or public official or by a customer:

All portions of the system (including those listed above) which are the subject of the report.

Appropriate records shall be kept by each utility to identify the inspections made, deficiencies found and action taken to correct such deficiencies.

4. Each telephone utility shall make systematic inspections of its system in the manner set out below for the purpose of insuring that the Commission's safety requirements are being met. Such inspections shall be made as often as necessary but in no event less frequently than is set forth below for various classes of facilities and types of inspection.

<u>Category</u>	<u>Scope of Inspection</u>	<u>Frequency</u>
Aerial Plant	Inspection for electrical hazards, proper clearance for electric facilities and climbing safety.	Every two years.
Underground Plant	Inspection for presence of gas, proper clearance from electric facilities and safe working conditions.	At least annually.
Station Equipment and connections	Inspection for external electrical hazards, damaged instruments or wiring, appropriate protection from lightning and safe location of equipment and wiring.	When on customer's premises.
Utility Buildings	Inspection for compliance with safety codes.	At least annually.
Construction Equipment	Inspection for defects, wear and operational hazards.	At least quarterly.

On the receipt of a report of a potentially hazardous condition made by a qualified employee or public official or by a customer:

All portions of the system (including those listed above) which are the subject of the report.

Appropriate records shall be kept by each utility to identify the inspections made, deficiencies found and action taken to correct such deficiencies.

5. Each water utility shall make systematic inspections of its system in the manner set out below for the purpose of insuring that the Commission's safety requirements are being met. Such inspections shall be made as often as necessary but in no event less frequently than is set forth below for various classes of facilities and types of inspection.

<u>Facility</u>	<u>Type</u>	<u>Inspection</u>	<u>Frequency</u>
<b>Source of Supply:</b>			
Dams	Physical and Structural		Annually
Intake Structures	Physical and Structural		Annually
Traveling Screens	Physical and structural and safety of operation		Annually
<b>Purification:</b>			
Sedimentation basins filters and clear wells	Physical and structural and safety of operation		Annually
Chemical feed equipment	For proper and safe operation		Annually
Pumping equipment including electric power wiring and controls:	For proper and safe operation		Annually
Hydrants	For proper and safe operation		Annually
Utility Buildings	Inspection for compliance with safety codes		Annually
Construction Equipment	Inspection for defects, wear and operational hazards		Quarterly
Mains and Valves	Leaks		Annually
<u>On the receipt of a report of a potentially hazardous condition made by a qualified employee or public official or by a customer:</u>			

All portions of the system (including those listed above) which are the subject of the report.

Appropriate records shall be kept by each utility to identify the inspections made, deficiencies found and action taken to correct such deficiencies.

APPENDIX "C"

Appendix to the Order of the Public Service  
Commission in Administrative Case No. 128 dated October 22,  
1970.

PSC: Electric-1

RULE XIV. TESTING OF METERING EQUIPMENT Section 3-(f)  
INSTRUMENT TRANSFORMERS.

As minimum requirements, instrument transformers shall be tested in a laboratory before installation to determine ratio and phase angle correction factors. These correction factors shall be retained on file with the utility and used to adjust the meter with which the transformers are used.

At the time of each periodic meter test the instrument transformers in service shall be given a thorough inspection and tested by means of a heavy burden tester.

Instrument transformers shall be removed from service and tested for accuracy whenever there is evidence of damage, the heavy burden tests indicate a change in the electrical properties, or the accuracy of the transformers is otherwise suspect.

Instrument transformers shall be tested for accuracy whenever they are removed from service.