

Public Utilities Commission

State of California

September 5, 1973

Mr. Joseph C. Caldwell, Director
Office of Pipeline Safety
Department of Transportation
Washington, D.C. 20590

Dear Mr. Caldwell:

This Commission, by Resolution No. G-1591, has authorized Southern California Gas Company to deviate from the requirements of Section 192.455 (a) of our General Order No. 112-C. The effective date is 60 days from the date of adoption of the Resolution.

Enclosed are the following:

1. Certified copy of Resolution No. G-1591.
2. Copy of letter request of Southern California Gas Company, dated August 13, 1973.
3. Engineering report entitled "Resistance of Stainless Steel to Corrosion" by Charles E. Lee of Southern California Gas Company, dated June 18, 1973.

If there are any questions on this material, please feel free to contact this office.

Very truly yours,

PUBLIC UTILITIES COMMISSION

By (signed)

WILLIAM R. JOHNSON, Secretary

Enclosures,

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

RESOLUTION NO. G-1591

Orig. and Copy
to Secretary

UTILITIES DIVISION
BRANCH/SECTION: Gas
DATE: September 5, 1973

R E S O L U T I O N

-Director
-Numerical File
-Alphabetical File
-Accounting Officer

SUBJECT: Order Authorizing Deviation to Section 192.455 (a) of General Order No. 112-C, Rules Governing Design, Construction, Testing, Maintenance and Operation of Utility Gas Gathering, Transmission Distribution Piping Systems.

WHEREAS: Section 3 (e) of the Natural Gas Pipeline Safety Act of 1968 authorizes any State agency certified under Section 5 (a) to waive compliance with any standard if the agency determines that the waiver is not inconsistent with gas pipeline safety and

WHEREAS: Southern California Gas Company by letter proposal, dated August 13, 1973, requests that it be granted a deviation from Section 192.455 (a) of General Order No. 112-C, and

WHEREAS: This Section requires that each buried or submerged pipeline installed after July 31, 1971 be coated and cathodically protected within one year after completion of construction, and

WHEREAS: The utility has provided the staff with a study it has made demonstrating the non-corrosive properties of Type 316 stainless steel. The utility proposes to use this steel for about 50,000 pipeline segments per year for: (a) service risers for plastic services; (b) plastic to steel connectors; and (c) plastic to plastic connectors, and

WHEREAS: The Commission concludes that with the use of Type 316 stainless steel that it would not be necessary to coat and cathodically protect this material for the purpose given. Good cause appearing,

IT IS ORDERED that Southern California Gas Company be granted the requested deviation from Section 192.455 (a) of General Order No. 112-C, and that it notify the Commission of any corrosive effects that may be observed in the future in the use of Type 316 stainless steel. The effective date of this order shall be sixty days from the date of adoption shown below.

Pursuant to the requirements of Section 3 (e) of the Natural Gas Pipeline Safety Act of 1968, a copy of this Resolution shall be forwarded to the Office of Pipeline Safety, Department of Transportation, Washington, D.C. 20590.

I hereby certify that the foregoing Resolution was duly introduced, passed and adopted at a regular conference of the Public Utilities Commission of the State of California, held on the 5th day of September, 1973, the following Commissioners voting favorably thereon:

VERNON L. STURGEON, President
WILLIAM SYMONS, JR., J.P. VUKASIN, JR.
THOMAS MORAN, D.W. HOLMES, Commissioners

(signed by William R. Johnson)

SOUTHERN CALIFORNIA GAS COMPANY
810 Couth Flower Street Los Angeles California

August 13, 1973

Public Utilities Commission
State of California
State Building, Civic Center
San Francisco, California 94102

Gentlemen:

Section 3 (e) of the Natural Gas Pipeline Safety Act of 1968 authorizes any State agency certified under Section 5 (a) to waive compliance with any standard if the agency determines that the waiver is not inconsistent with gas pipeline safety. Pursuant to Section 105.1 of General Order No. 112-C, the Southern California Gas Company hereby requests a deviation from the requirements of Section 192.455 (a) of the General Order to permit segments of pipelines constructed of Type 316 stainless steel to be installed without coating and cathodic protection.

The Company proposes to use Type 316 stainless steel segments for certain pipelines listed below:

- (a) service risers for plastic services
- (b) plastic to steel connectors
- (c) plastic to plastic connectors.

We estimate that the Company will use 50,000 of these segments of pipelines constructed of Type 316 stainless steel each year. A hardship would result if it is necessary to coat and cathodically protect this large number of short segments of pipeline and to monitor the cathodic protection. Since the number of short segments is cumulative, the monitoring requirement becomes an increasingly greater hardship each year.

The Company has made a thorough study and concluded that Type 316 stainless has sufficient resistance to corrosion in soils to perform satisfactorily without coating or cathodic protection. The conclusions of the study were based on tests and investigations conducted by the Company, a review of the literature on the subject and also tests conducted by the National Bureau of Standards, the American Iron and Steel Institute, the Naval Civil Engineering Laboratory, the Metropolitan Water District and the International Nickel Company. Copies of the study have been furnished to the Commission Staff.

The General Order No. 112-C includes a precedent for excepting a material from the requirements to coat and cathodically protect. Section 192.455 (c) (1) permits copper pipelines to be installed without coating or cathodic protection where tests, investigation or experience demonstrate that the environment is not corrosive to copper. The previously mentioned study demonstrates that soils are not corrosive to Type 316 stainless steel. In short, the coating and cathodic protection requirements are simply not necessary, in our view, for Type 316 stainless steel. Coating, cathodically protecting and monitoring of these pipeline segments would defeat the very benefits to be achieved by using stainless steel; obviously, the requirement to do so creates a hardship.

The Company is confident that the use of segments of pipeline constructed of Type 316 stainless without coating or cathodic protection is not inconsistent with pipeline safety, and indeed is consistent with pipeline safety. Since it would be an economic hardship to coat, cathodically protect and thereafter perpetually monitor the large number of these segments required each year, Southern California Gas Company respectfully requests this deviation from Section 192.455 (a) of General Order No. 112-C.

Very truly yours

(signature illegible)

October 31, 1973

Mr. William R. Johnson, Secretary
California Public Utilities Commission
California State Building
San Francisco, California 94102

Dear Mr. Johnson:

We have reviewed Resolution No. G-1591 of the California Public Utilities Commission which granted a waiver to Southern California Gas Company from the requirements of 192.455 (a) of your General Order No. 112-C to permit the use of bare Type 316 stainless steel without cathodic protection for connectors and service risers as specified in your Resolution.

The Office of Pipeline Safety does not object to the granting of this waiver if the following conditions are included:

1. That only non-sensitized Type 316 stainless steel be used as determined by the ASTM A262 Test Method.
2. That each service riser be electrically isolated at the meter end. If no meter or regulator is involved, then the Type 316 stainless steel riser is to be electrically isolated from building piping at the building entrance way.
3. The waiver terminates after 3 years.
4. The Southern California Gas Company will submit a report to the California Public Utilities Commission three months before the waiver termination regarding the success or failure of the use of Type 316 stainless steel for connectors and service risers for plastic services.

We trust that these conditions to the granting of the waiver will meet with your approval. If you have any questions regarding this matter, please let us know.

Sincerely,

SIGNED

Joseph C. Caldwell
Director
Office of Pipeline Safety

September 11, 1973

Mr. William R. Johnson, Secretary
California Public Utilities Commission
California State Building
San Francisco, California 94102

Dear Mr. Johnson:

We have received your letter of September 5, 1973, regarding Resolution No. G-1591 of the California Public Utilities Commission which granted a waiver to Southern California Gas Company from the requirements of 192.455 (a) of your General Order No. 112-C.

We will review the information submitted regarding the granting of this waiver, and we will inform you of our determination regarding this waiver by November 5, 1973.

Sincerely,

/Signed/

Joseph C. Caldwell
Director
Office of Pipeline Safety