July 29, 1971

Mr. G. Frank Bright Sales Manager Safety Relief Valves Anderson, Greenwood & Co. P. O. Box 400 Bellaire, Texas 77401

Dear Mr. Bright:

This is in reply to your letter of July 13, 1971, requesting an interpretation of paragraph 192.505(d). You specifically questioned the use of sub-paragraph(d)(2), instead of Section 192.145, for the strength testing of safety relief valves prior to operation.

It is intended that all valves including safety relief valves meet the applicable requirements of Section 192.145. Paragraph 192.145(a) requires, in part, that each valve meet the minimum requirements of one of three specifications or the equivalent including API Standard 6D. Section 5.1 of API Standard 6D states, "All pressure tests required in this section (Section 5) shall be made on all completed valves prior to shipment from the manufacturer's works." The words "each valve" and "equivalent" in paragraph 192.145(a) are used in the sense of providing quality control and inspection for all valves that would at least be equivalent to that specified for the specific valves mentioned in API 6D. For example, the listed specifications do not cover all sizes and types of valves, but a valve of a size or type not covered should at least meet the applicable safety requirements in the listed specifications. Even though relief valves are not included by name in API Standard 6D, safety requirements "equivalent" to those elaborated in API Standard 6D must be.

It is recognized that individual pieces of many types of components, such as pipe ells, tees, and couplings are not individually strength tested at the time of manufacture. Paragraph 192.505(d) gives the operator an option when such a component is being replaced. This section is intended for situations where a component cannot as a practical matter be given a post-construction test. The operator, therefore, does not have to remove the segment of pipeline containing the replaced

component and test the entire segment to prove the item has been pretested per sub-paragraph 192.505(d)(1), or a prototype of the component was tested per sub-paragraph 192.505(d)(2).

Please contact me if I can be of any further assistance in this matter.

Sincerely,

/signed/

Joseph C. Caldwell Acting Director Office of Pipeline Safety

## Anderson, Greenwood & Company

July 13, 1971

Office of Pipeline Safety Room 315 201 Fannin Street Houston, Texas 77002

Attn: Mr. M. W. Taylor

Re: Hydrostatic Testing of Safety Relief Valves

for use in Natural Gas Pipelines

## Gentlemen:

Anderson, Greenwood & Co. is a manufacturer of safety relief valves widely used as overpressure protection in natural gas pipelines. For some weeks we have been conducting hydrostatic tests on a prototype of each type, size and flange rating at test pressure of 150% of flange rating. We have been running these tests for 8 hours, and of course keeping appropriate recorder chart records.

We have been proceeding on the assumption that a safety relief valve is a "component other than pipe" being added to the pipeline as described in 192.505 (d). We also plan to prepare a standard certification that a prototype of all AGCO safety relief valves have been so tested, and are manufactured under a quality control system to comply with 192.505(d)(2).

Recently we have received a letter from Northern Natural Gas Co. (copy attached) expressing an opinion that a safety valve should be subjected to hydrostatic test per API-6D, and reference 192.145. The position of our company is that API-6D is a test for valves other than safety relief valves, and is by title not applicable to safety relief valves.

We ask that you give us a ruling on whether we are correct in our assumption that a safety relief valve can be tested under 192.505(d). Thank you very much.

Yours very truly,

ANDERSON, GREENWOOD & CO.

G. Frank Bright, Sales Manager Safety Relief Valves

Northern Natural Gas

July 17, 1971

Mr. Frank Bright Anderson Greenwood Company [sic] Box 400 Billaire [sic], Texas 77401

Dear Mr. Bright:

Mr. Buxton, Mr. Jack Baker and I had a conference on June 15 regarding testing of relief valves, Mr. Baker's position as Director of Codes is that a relief valve should be tested to the same specifications as a plug, gate or ball valve used in the same location. Briefly, this means that valves 6" and smaller should have the same test as API-6D, 8" and larger shall be tested for 12 hours shell and 3 hours seat (if applicable), with pressure-temperature test charts submitted. In the case of ordinary valves the latter is referred to as a PL-203 test, and is an extra cost item.

Mr. Buxton's information was that you relied on DOT paragraph 192.505 D92) [sic], using the prototype approach. We are interested in knowing whether other companies will accept this. Mr. Baker does not approve of this approach, instead would refer to paragraph 192.145.

Please let us know your price schedule for a test that will match API 6D. I am enclosing a PL-203 specification form. Much does not apply, but Section IV through 4.82 does seem to fit relief valves. Since this applies to 8" and up, please estimate such a testing cost.

An early reply will be appreciated.

Very truly yours,

P. W. Nelson