

STATE OF OHIO
Public Utilities Commission
111 North High Street
Columbus, Ohio 43215

August 18, 1975

Mr. Cesar DeLeon, Acting Director
Office of Pipeline Safety
Department of Transportation
400 7th Street S.W.
Washington, D.C., 20590

Re: Waiver from Compliance with Requirements of A.O. #200 192.753 (a). Case No. 75- 413-PL-ORD

Dear Mr. DeLeon;

This is to acknowledge receipt, by this office, of your letter dated August 9, 1975, to Mr. Randall Applegate, Acting Secretary, Ohio Public Utilities Commission. The Gas Safety Staff and all other concerned Commission personnel, wish to extend our thanks and appreciation for your support of our granting the waiver.

The reporting and certain inspection requirements as delineated in the waiver will naturally be enforced in all instances.

Yours truly,
Ralph A. Maselli, Chief
Gas Pipeline Safety Section Compliance Division

Mr. Randall Applegate
Acting Secretary
Ohio Public Utilities Commission
111 North High Street
Columbus, Ohio .43215

Dear Mt. Applegate:

This refers to your letter of June 9, 1975, notifying us that in Case No. 75-413-PL-ORD, the Commission granted the Columbia Gas of Ohio, Inc., the Cincinnati Gas and Electric Co., and the Dayton Power and Light Co. a waiver from compliance with the requirements of 49 CTR 192.753(a). Subject to certain inspection, reporting, and record-keeping conditions, the waiver permits the use of a chemical bonding process described in U.S. Patent No. 381306, known as the "Avonseal process" in lieu of mechanical leak clamps to seal cast iron caulked bell and spigot joints which are subjected to pressures of 25 pug or more. The waiver terminates three years after June 5, 1975.

Based on our review of the test data and other information submitted in support of the waiver, we believe the waiver is consistent with gas pipeline safety.

Accordingly, we have no objection to the granting of the waiver and it may become effective immediately.

Sincerely,
Cesar DeLeon
Acting Director
Office of Pipeline
Safety Operations

August 7, 1975

Mr. Randall Applegate Acting Secretary
Ohio Public Utilities Commission
111 North High Street
Columbus, -Ohio 43215

Dear Mr. Applegate:

This refers to your letter of June 5, 1975, which was received by this Office on June 9, 1975. The letter notified us that in Case No. 75-413-PL-ORD, the Commission granted the Columbia Gas of Ohio, Inc., the Cincinnati Gas and Electric Co., and the Dayton Power and Light Co. a waiver from compliance with the requirements of Section 192.753(c) of Administrative Order No. 200 which sets forth the same requirements as 49 CFR 192.753(a). Subject to certain inspection, reporting, and record keeping conditions, the waiver permits the use of a chemical bonding process described in U.S. Patent No. 301306, known as the "Avonseal process," in lieu of mechanical leak clamps to seal cast iron caulked bell and spigot joints which are subjected to pressures below 50 psig. The waiver terminates three years after June 5, 1975.

Based on our review of the test data and other information submitted in support of the waiver, we believe the waiver is consistent with gas pipeline safety.

Accordingly, we have no objection to the granting of the waiver and it may become effective immediately.

Sincerely,
Cesar DeLeon
Acting Director
Office of Pipeline Safety Operations

Mr. Randall Applegate Acting Secretary
Ohio Public Utilities Commission
111 North High Street
Columbus, -Ohio 43215

Dear Mr. Applegate:

On June 9, 1975, we received a copy of an entry, Case No. 75-413-PL-ORD, Administrative Order No. 200, which is a waiver granted to the Columbia Gas of Ohio, Inc., Cincinnati Gas and Electric Co., and Dayton Power and Light Co. from compliance with the requirements of Section 192.753(a) of Title 49 of the Code of Federal Regulations. The waiver has been assigned number OH-75-1.

Under Section 3(a) of the Natural Gas Pipeline Safety Act of 1968, a State agency may not grant a waiver from the Federal standards unless the Secretary is given at least 60 days notice before the effective date of the waiver, during which time he may stay the waiver by objecting in writing. Accordingly, based on the date we received your letter, the waiver cannot become affective until August 8, 1975, unless we approve the waiver before that date.

We will review the Entry and previous correspondence on this matter with Mr. Ralph Maselli, Chief, Gas Pipeline Safety Section, Utilities Department, and notify you of our decision respecting the granting of the waiver before August 8, 1975.

Sincerely,
Joseph C. Caldwell
Director
Office of Pipeline Safety

Ohio Public Utilities Commission
111 North High Street
Columbus, -Ohio 43215

June 5, 1975

Mr. Joseph C. Caldwell, Director
Department of Transportation
400 7th Street, S.W.
Washington, D.C. 20590

Re: Proposed Waiver of Compliance with 49 CFR 192.753(a) and Administrative Order No. 200 Section 192.753(a).

Dear Mr. Caldwell:

Enclosed you will find an Entry of the Public Utilities Commission of Ohio which grants a waiver from the requirements of Section 192.753(a), Administrative Order No. 200. Basically the waiver authorizes the use of a chemical bonding process, such as Avonseal, for the purposes of sealing cast iron pipelines.

As you know, we have communicated with your office on this matter, offering the proposed Entry for your comments. The suggestions you offered in your letter received March 28, 1975, have been incorporated into the Entry to conform to your wishes.

In response to your question relating to the testing of Columbia Gas of Ohio, Inc., and Exhibits A, B, C and D in our original submission we submit the following:

Question 6A

Were the tested joints typical of those in the actual distribution systems being considered for possible waiver?

Answer:

Yes, except that four one quarter inch holes, spaced 90 degrees apart, were in existence at the joint to assimilate leaks.

Question 6B

What was the condition of the packing?

Answer:

The condition of the packing was typical of a leaded/yarn joint subject to approximately fifty (50) years service.

Question 6C

Was any of the lead or cement seal left in place?

Answer:

There was no cement, and all the lead was intact except in the area where the holes referred to in GA above were drilled.

Question 6D

What was the cure time for each of the joints tested?

Answer:

The normal minimum cure time is 30 minutes, however, the test joints had been sealed several days in advance of the testing.

Question 6E

Exhibit B indicates that the pressure could not be maintained on the test specimen at 100 psig because of a leak in the test section adjacent to the end cap. What method was used to verify that there was no leak at the Avonseal connection?

Answer 6E

A soap suds solution was applied to the seal throughout the test period.

In regards to your suggestion that the use of the seal process be limited to locations where exposure to oils would not exist, it appears that the oil exposure tests, (Exhibit E of filing) should not be interpreted to require non-use in areas of possible oil exposure.

The exhibits submitted to your office with our proposed Entry and copies of the correspondence between your office and the Commission on this matter are enclosed with this letter to enable you to complete your files.

Sincerely,
Ralph h. Maselli, Chief
Gas Pipeline Safety Section
Utilities Department

Approved by: John D. Borrows, P.E.
Director of Utilities

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of Natural)	Case No. 75-413-PL-ORD
Gas Pipeline Safety)	Administrative Order No. 200
Standards)	[Section 192.753(a)]

ENTRY

The Commission, coming now to consider the above-entitled matter, and, in particular, certain waivers of compliance with Commission Administrative Order No. 200, Section 192.753(a), makes the following findings;

- (1) Columbia Gas of Ohio, Inc., Cincinnati Gas and Electric Co., and Dayton Power and Light Co. have requested that the requirements of Section 192.753(a) of Administrative Order No. 200 be waived to the extent necessary to permit the use of seals produced by a chemical bonding process in lieu of mechanical leak clamps.
- (2) The requested waiver of the requirements of Section 192.753(a) of Administrative Order No. 200 would be confined to cast iron caulked bell and spigot mains operating below 50 psig.
- (3) The Commission is a Certified State Agency pursuant to Section 5(a) of the Natural Gas Pipeline Safety Act of 1968 (49 U.S.C. 1672(e)) and has authority to grant a waiver of compliance under Section 3(e) of said Act.
- (4) Section 192.753(a) of Administrative Order No. 200 requires the use of mechanical clamps.
- (5) The chemical bonding process to be utilized for the purpose of creating a seal in cast iron caulked bell and spigot mains operating below 50 psig is confined to that described in United States Patent No. 381306 and known as the "Avonseal process."
- (6) The chemical bonding process described in United States Patent No. 381306 produces a seal which is equivalent to or better than a mechanical leak clamp. The seal would provide great flexibility, require less maintenance to decrease leakage, and would preserve public safety.
- (7) The Office of Pipeline Safety of the United States Department of Transportation has under consideration a rule-making change modifying 49 CFR 192.753(a) to allow the use of the process described in United States Patent No. 381306 in lieu of mechanical leak clamps (Docket No. PET.74-11).
- (8) Those utilizing the chemical bonding process described in United States Patent No. 381306 shall:
 - A. In areas where the seal is installed, conduct a gas detector survey in business districts, including tests of the atmosphere, in gas, electric, telephone, sewer and water system manholes, at cracks in pavement and sidewalks and at other locations providing an opportunity for finding gas leaks, at intervals of not more than six (6) months for a three (3) year period commencing on the date of installation.
 - B. In areas where the seal is installed, conduct leakage surveys in residential areas (outside principle business areas) at least once each year for a period of three (3) years from the date of seal installation.
 - C. Report promptly problems experienced with the use of the seal process described in United States Patent No. 381306 to the Public Utilities Commission of Ohio and the Office of Pipeline Safety in complete detail and repair all leaks by removing and replacing seals in the affected area.
 - D. Maintain written records of the location of each seal installation and file a report, concerning the success or failure of the process authorized by the waiver contained herein, with the Public Utilities Commission of Ohio three (3) months prior to the expiration of the waiver.
- (9) A waiver of compliance with Section 192.753(a) of Administrative Order No. 200 should be granted to allow for the use of the process described in United States Patent No. 381306, in lieu of mechanical leak clamps, for those companies who have requested such a waiver, said waiver to continue for three (3) years from the date this Entry is entered in the Journal. At the expiration of three (3) years the Commission will consider renewing the waiver, if necessary.

It is, therefore,

ORDERED, That the foregoing findings be observed. It is, further,

ORDERED, That a copy of this Entry be served on the Natural Gas utilities that have requested a waiver of Section 192.753(a) and the Office of Pipeline Safety, United States Department of Transportation.

THE PUBLIC UTILITIES COMMISSION OF OHIO

Chairman

SALLY W. BLOOMFIELD.

David SWEET
Commissioners

Office of the Secretary of Transportation
Washington, D.C. 20590

March 26, 1975

Mr. Ralph A. Maselli
Chief, Gas Pipeline Safety Section
Utilities Department
Ohio Public Utilities Commission
111 North High Street
Columbus, OH 43215

Dear Mr. Maselli:

This responds to your letter of January 23, 1975, requesting our comments on your draft of a proposed order of the Commission which, in accordance with Section 3(e) of the Natural Gas Pipeline Safety Act of 1968 (49 USC 1672(e)), would waive compliance with 49 CFR 192.753(a). The waiver would permit all gas companies under the Commission's jurisdiction to use the Avonseal process in lieu of mechanical leak clamps required by section 192.753(a), subject to certain conditions.

While, in general, we are not opposed to the idea of a waiver permitting the use of the Avonseal process, we have the following comments regarding your particular proposal:

1. Under Section 3(e) of the Act, a State agency may grant a waiver "in the same manner" as the Secretary. Because, under Section 3(e), the Secretary may grant a waiver only "upon application by any person," it follows that a State agency is also bound by this provision. We suggest, therefore, to be consistent with the requirements of Section 3(e), that the draft order be revised to apply only to those gas companies who have applied for a waiver to use the Avonseal process.
2. To ensure the use of proper materials and proper installation methods, the order should define the term "Avonseal process" in relation to the provisions of any U.S. or foreign patent, or, alternatively, the manufacturer's or distributor's material specifications and installation instructions.
3. Under Item 6 of the order, Clauses (A) and (B) should be written to apply only in areas where Avonseal is used and should state what corrective action is required if leaks are discovered.
4. Two conditions should be added under Item 6 of the order:
 - a. That the applicant keep a record of the location of every Avonseal installation.
 - b. That the applicant submit a report to the Commission 3 months before expiration of the waiver regarding the success or failure of the Avonseal installations made under the waiver.
5. Because of the newness of the Avonseal process and the possibility of unforeseen results, a provision should be added to the order terminating the waiver 3 years after date of issuance. The Commission could consider renewing the waiver after 3 years if necessary.
6. The results of testing performed by Columbia Gas of Ohio, Inc.; Avon Lippiatt Hobbs, Ltd; The British Gas Council; and The Dutch Gas Institute appear to technically justify the proposed waiver. However, before finally determining whether a waiver should be granted, we would like additional information on the tests performed by Columbia Gas of Ohio, Inc., and discussed in Exhibits A, B, C, and D to your submittal, as follows:
 - a. Were the tested joints typical of those in the actual gas distribution systems being considered for

possible waivers?

- b. What was the condition of the packing?
- c. Was any of the lead or cement seal left in place?
- d. What was the cure time of each joint tested?
- e. Exhibit B indicates that pressure could not be maintained on the test specimen at 100 psig because of a leak in the test section adjacent to the end-cap. What method was used to verify that there was no leakage at the Avonseal connection?

7. Any waiver granted should be limited to segments of a pipeline that would definitely be free of any oils that may be detrimental to the physical properties of Avonseal. This suggestion is based on Exhibit E to your submittal which indicates that when Avonseal was subjected to an oil mist test, a sharp reduction in the material strength occurred after about 1 week and a more drastic reduction at 2 months.

Please let us know if we can further assist you in this matter. We appreciate your active interest in our cooperative pipeline safety program.

Sincerely,
Joseph C. Caldwell
Director
Office of Pipeline Safety

PUBLIC UTILITIES COMMISSION
111 North High Street
Columbus, Ohio 43215

Mr. Joseph C. Caldwell, Director
Office of Pipeline Safety
Department of Transportation
400 7th Street, S.W.
Transpoint TES 30 Building
Washington, D. C. 20590

Re: Proposed Waiver of compliance to use the Avonseal sealing process on cast iron bell and spigot mains.
RE: MFSS Section 192.753(a)

Dear Mr. Caldwell:

Requests from the large Ohio natural gas operators are in the process of being submitted to this Commission to grant waivers of compliance to our Administrative Order No. 200, Section 192.753 (a). The proposed waiver regards the use of the Avonseal process sealing method on cast iron natural gas pipelines subject to pressures greater than 25 psig.

The Commission is considering granting the waiver state-wide but only under stringent reporting of performance requirements. We are hereby submitting to your office and the Technical Pipeline Standards Committee the following as a preliminary submittal for you and your committee's comments prior to issuance of any waivers by this Commission. It is requested that your department work with, and cooperate with the writer in a manner that will ensure proper waiver verbage, but with emphasis applied to the reporting of performance requirements.

Yours truly,
Ralph A. Maselli, Chief
Gas Pipeline Safety Section
Utilities Department

Approved by: John D. Borrows, P.E.
Director of Utilities

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of Pipeline)
Safety Standards) Case No.

ENTRY

The Commission, coming now to consider the above entitled Matter and in particular waiving compliance with Administrative Order No. 200, Section 192.753 (a), finds:

1. That, various natural gas distributors within the State of Ohio have requested the Commission to waive compliance with Section 192.753(a) requiring mechanical leak clamps to allow the use of the Avonseal process in lieu thereof.
2. That, the Commission is a Certified State Agency under Section 5(a) of the Natural Gas Pipeline Safety Act of 1968, and has authority to grant such a waiver under Section 3(e) of said act.
3. That, Section 192.753(a) of Administrative Order No. 200 as written, would not allow the use of the Avonseal process because the seal produced is primarily due to chemical bonding rather than mechanical application of forces by a clamp.
4. That, the waiver would extend the use of the Avonseal process to cast iron caulked bell and spigot mains operating below 50 p.s.i.g. but above 25 p.s.i.g.
5. That, the Avonseal process produces a seal which is equivalent or possibly better than a mechanical leak clamp, would provide greater flexibility, require less maintenance to decrease leakage, and would increase public safety.
6. That, companies using the Avonseal process, shall:
 - (A) Conduct a gas detector survey in business districts, including tests of the atmosphere, in gas, electric, telephone, sewer and water system manholes, at cracks in pavement and sidewalks, and at other locations providing an opportunity for finding gas leaks, at intervals not exceeding six (6) months for a three year period commencing on the date of seal installation,
 - (B) Conduct leakage surveys in residential areas (outside of the principle business areas) at least once each year for a period of three years from the date of seal installation.
 - (C) Report promptly problems experienced with the use of the Avonseal process to the Public Utilities Commission of Ohio and the Office of Pipeline Safety in complete details.
7. That, the Office of Pipeline Safety has indicated that it anticipates a rule making change modifying Section 192.753(a) to allow the use of the Avonseal process in lieu of mechanical leak clamps (Docket No. PET. 74-11).
8. That, a waiver should be granted to allow the use of the Avonseal process in lieu of mechanical leak clamps presently required under Section 192.753(a) for those companies subject to the jurisdiction of the Commission.

It is therefore,

ORDERED, that the foregoing findings be observed. It is, further,

ORDERED, that a copy of this Entry be served on all natural gas companies subject to the jurisdiction of the Commission and a copy be filed with the secretary of State of Ohio.