

Consolidated Edison Company of New York, Inc. 4 Irving Place, New York, NY 10003 Telephone (212) 460-2533

April 30, 1984

Re:

Indian Point Unit No. 2 Docket No. 50-247

Director of Nuclear Reactor Regulation U. S. Nuclear Regulatory Commission Washington, D. C. 20555

ATTN: Mr. Steven A. Varga, Chief Operating Reactors Branch No. 1 Division of Licensing

Dear Mr. Varga:

This will confirm a telephone conference on March 12, 1984, between Mr. Dennis Kubicki of the NRC Staff and members of the Con Edison engineering staff on the subject of the Indian Point Fire Protection (Appendix R) program. Attachment A to this letter contains a summary of the resolution of the Clarification Requests which we understand is acceptable to the Staff.

Should you or your staff have any questions, please contact us.

very truly yours, MMUD. Avole

cc:

<u>8405100019</u> 840430

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Senior Resident Inspector U. S. Nuclear Regulatory Commission Post Office Box 38 Buchanan, New York, 10511

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ATTACHMENT A

Fire Protection Appendix R Clarification Request

Consolidated Edison Company of New York, Inc. Indian Point Unit No. 2 Docket No. 50-247 April 1984

Fire Protection (Appendix R) Clarification Request

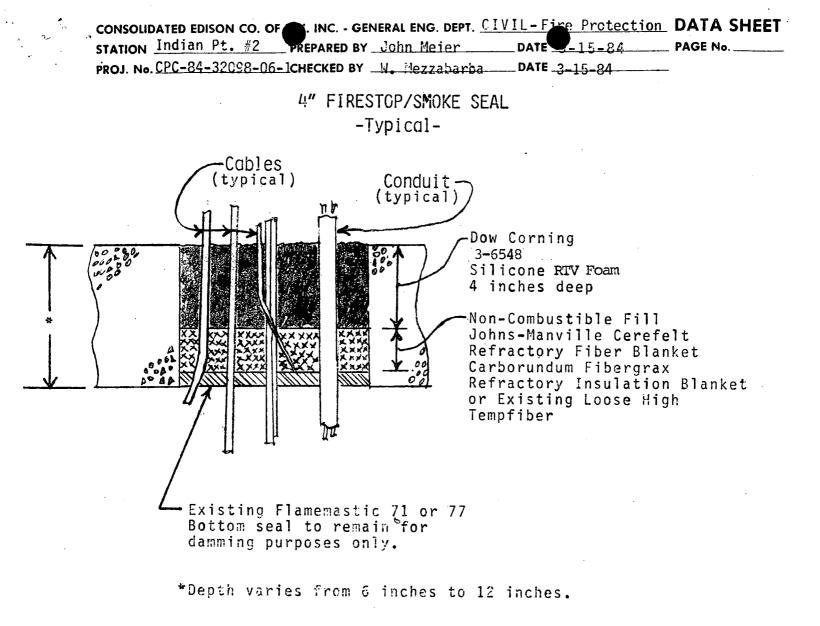
1. Smoke seals (Type II and III)

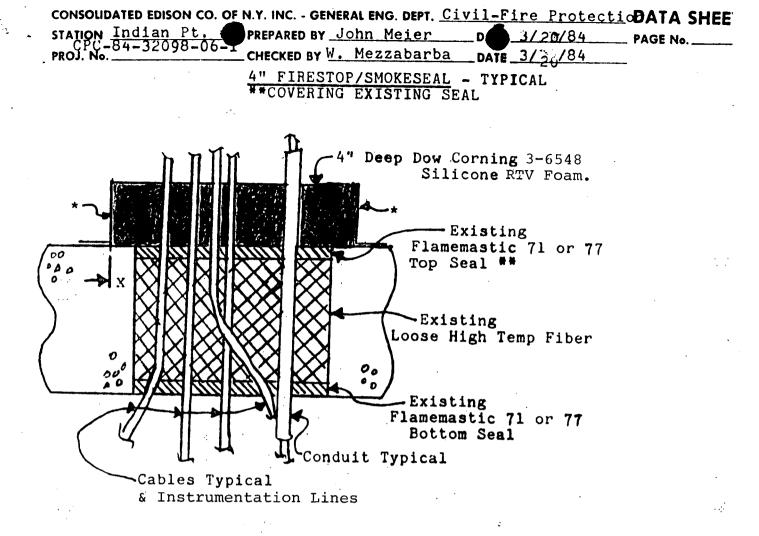
The NRC was advised that previous Con Edison commitments require certain fire barriers (Types II and III identified in the September 9, 1983 submittal to the NRC) to have functional penetration seals to act as smoke seals. Con Edison proposes to partially remove existing Flamemastic and Fiberglass seals in need of repair and install four-inch thick Dow Corning (DC-3-6548) silicone RTV foam seals.

The lower portion of the existing Flamemastic and Fiberglass floor seals may be used as a dam but this material will not be considered as part of the smoke seal. Where no Flamemastic material is present in the penetration, an alumina silica fiber blanket or board (Cerafelt, Cera board, etc.) dam will be installed and four inches of DC-3-6548 silicone RTV foam will be placed to form the smoke seal. Where it is impractical to remove the existing Flamemastic seals to a depth of four inches, a four-inch high collar will be placed around the penetration and an above the floor silicone RTV foam seal will be installed. The attached sketches, (SK FP-001, SK FP-002) show typical floor smoke seal designs proposed for Indian Point Unit No. 2. Wall penetration seals shall have no damming left in place.

Conclusion

Con Edison will prepare a procedure to inspect these seals on an 18-month basis to insure their integrity.





**Where it is impractical to remove the existing Flamemastic seal to a depth of four inches, a four inch high collar will be placed around the penetration and an above the floor silicone foam seal will be installed as shown.

*Forming collar shall be 4" high 24 gauge galvanized steel, secured to substrate with $\frac{1}{4}$ " bead of Dow Corning 96-081 high temperature silicone adhesive.

Collars are only required where the seal may be subject to mechanical abuse. (i.e.;walkways, etc.)

SK--FP-002

Where collars are not required (i.e.; inside control cabinet) seals can be formed with approved damming boards. After the seal is poured, the damming boards may be removed and the silicone foam seal shall be bonded, if necessary, to its substrate, with Dow Corning 96-081 high temperature silicone adhesive sealant.

X - Approximately One Inch Overlap Around Seal.

2. Three-Hour Fire Rated Wall Seals

Type I fire barrier penetrations (identified in the September 9, 1983 submittal to the NRC) require a 3-hour fire rating. Con Edison had been soliciting bid proposals for installing these seals.

In order to facilitate future inspection and repair of penetration seals, we have specified the installation of 3-hour rated Dow Corning (DC-3-6548) silicone RTV foam seals without the use of permanent damming materials. Some Contractors have installed and tested 3-hour rated silicone RTV foam seals to nationally recognized standards with permanent damming but have not tested seals without permanent damming boards in place.

In our judgement, contractors who have successfully installed 3-hour rated seals with permanent damming boards are fully qualified to install 3-hour fire rated seals using twelve inches of DC-3-6548 silicone RTV foam without damming boards, provided that approved quality assurance and control techniques are used.

There is fire test documentation from Dow Corning and other sources, including contractors, which demonstrates that if DC-3-6548 silicone RTV foam is used and placed in a 12" thick layer in accordance with approved procedures, it will provide a 3-hour fire rated seal. Documentation from such sources, or a nationally recognized testing laboratory, will satisfy NRC qualification requirements, provided that such tests were conducted in accordance with the requirements of ASTM E814 and E119, using DC-3-6548 silicone RTV foam. The NRC has accepted seals of similar design to those proposed for Indian Point Unit No. 2 at other nuclear plants and foresees no problem in acceptance of the Con Edison design without specific tests by the installer.

Conclusion

Con Edison will proceed with the installation of 3-hour fire rated seals and assure that the following criteria are met:

- All 3-hour rated seals to have a minimum thickness of 12" unless the seal has been successfully tested and demonstrated to provide a 3-hour rating with a lesser thickness.
- Seal material shall be Dow Corning (DC-3-6548) Silicone RTV Foam.
- 3. All seals shall be installed by an experienced contractor in accordance with approved QA/QC procedures.
- 4. Fire tests conducted by a recognized national testing laboratory to ASTM standards will be cited as documentation of the 3-hour fire rating of the proposed seal.