

September 16, 1985

Docket No. 50-247

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Mr. John D. O'Toole  
 Vice President  
 Nuclear Engineering and Quality Assurance  
 Consolidated Edison Company  
 of New York, Inc.  
 4 Irving Place  
 New York, New York 10003

Dear Mr. O'Toole:

SUBJECT: APPENDIX R REQUIREMENTS FOR CONTROL ROOM PENETRATION SEALS FOR THE INDIAN POINT NUCLEAR GENERATING UNIT NO. 2

By letter dated October 16, 1984 we granted your Appendix R exemption request for the control room on the basis of our understanding that the penetration seals in the floor of the control room were to be upgraded. By letters dated February 20 and May 23, 1985 you provided additional information on this subject. Based on our review of this additional information we conclude that our decision to grant your exemption request remains valid.

Additionally, by letter dated April 30, 1984, the licensee documented the understanding our staffs had previously reached on penetration seals. Our evaluation of this is also enclosed.

Sincerely,

Steven A. Varga, Chief  
 Operating Reactors Branch #1  
 Division of Licensing

Enclosure:  
 As stated

cc w/enclosure:  
 See next page

\* SEE PREVIOUS WHITE FOR CONCURRENCE

*cpa/16/85*  
 ORB#1:DL\*  
 CParrish  
 07/01/85

ORB#1:DL  
 MST/MS/TS  
 09/16/85

ORB#1:DL\*  
 DNeighbors  
 07/01/85

BC-ORB#1:DL  
 SVarga  
 09/16/85

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Additionally, by letter dated April 30, 1984, you documented a March 12, 1984 telephone conversation between members of our staffs. We agree with your account of the conversation in all but one area. Your letter indicates that the installation of smoke and fire seals as documented in your September 9, 1983 and April 30, 1984 letters will be sufficient to satisfy our fire protection guidelines and regulations as contained in Appendix A to BTP APCSB 9.5-1 and Appendix R to 10 CFR 50. It should be noted that the staff did not indicate the acceptability of the seals outside the range of Appendix R requirements. The acceptability with regard to quality assurance was not implied during the telephone conversation.

Sincerely,

Steven A. Varga, Chief  
Operating Reactors Branch #1  
Division of Licensing

Enclosure:  
As stated

cc w/enclosure:  
See next page

\* SEE PREVIOUS WHITE FOR CONCURRENCE

ORB#1:DL\*  
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07/3/85

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Additionally, by letter dated April 30, 1984, you documented a March 12, 1984 telephone conversation between members of our staffs. We agree with your account of the conversation in all but one area. Your letter indicates that the installation of smoke and fire seals as documented in your September 9, 1983 and April 30, 1984 letters will be sufficient to satisfy our fire protection guidelines and regulations as contained in Appendix A to BTP APCSB 9.5-1 and Appendix R to 10 CFR 50. You should not imply that our answers to your questions go beyond the reviewers scope of review responsibility, such as the realm of Quality Assurance/Quality Control.

Sincerely,

Steven A. Varga, Chief  
Operating Reactors Branch #1  
Division of Licensing

Enclosure:  
As stated

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See next page

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SVarga  
06/ /85

Mr. John D. O'Toole  
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Indian Point Nuclear Generating  
Station 1/2

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

SAFETY EVALUATION REPORT  
CONTROL ROOM PENETRATION SEALS  
INDIAN POINT NUCLEAR GENERATING UNIT NO. 2  
DOCKET NO. 50-247

1.0 Introduction

By letters dated February 20 and May 23, 1985, the licensee submitted additional information concerning penetration seals in the Control Room Floor. This issue relates to a previously approved exemption from the requirement of Section III.G.3 of Appendix R. This exemption was granted by letter dated October 16, 1984.

2.0 Control Room Floor Penetration Seals

2.1 Discussion

In our safety evaluation which recommended that the licensee's exemption request for the Control Room be granted, we stated that penetration seals in the floor of the control room would be upgraded to achieve a 3-hour fire rating. In fact, the existing penetration seals will be replaced with a silicone foam that can achieve a 3-hour rating when installed to a depth of 12 inches. Because of tight fit of cables which pass through the floor and the difficulty with removing all of the existing seals, the depth of silicone foam may not reach the level necessary to achieve a 3-hour rating. However, a minimum thickness of 4 inches of foam will be achieved.

2.2 Evaluation

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We had two principal concerns with the penetration seals in the Control Room Floor. The first is that in the event of a fire in the Cable Spreading Room below, smoke and hot gas would rise up and force control room evacuation. The silicone seal that has been used forms a tight barrier at any opening in the floor/ceiling assembly where it is used. Because of the Underwriters Laboratories (U.L.) listing of the product, we have reasonable assurance that the foam will remain in place and function in a satisfactory manner for

an indefinite period of time as long as the product is not exposed to prolonged periods of elevated temperatures. Because the cable spreading room is protected by an automatic fire detection and fire suppression system, we expect any potential fire to be detected and suppressed early before significant temperature rise occurs. We, therefore, conclude that the licensee's proposed configuration of silicone foam will act as an effective smoke barrier.

We were also concerned that a fire in the cable spreading room would spread up into the Control Room and cause a loss of safe shutdown capability. Because of the above-stated fire protection, along with the plant's manual fire suppression capability, i.e., manual hose stations, portable fire extinguishers, fire brigade, we do not expect a fire in the cable spreading room to spread beyond the immediate area of fire origin. If fire propagation should occur and the Control Room become untenable, an alternate shutdown capability that is independent of the combined Cable Spreading/Control Rooms is available. Therefore, safe shutdown could still be achieved and maintained.

### 2.3 Conclusion

Our previous recommendation to grant the licensee's Control Room exemption remains valid.

## 3.0 Penetration Seals-Generic

### 3.1 Discussion

The licensee's letter of April 30, 1984, documented the understandings we had previously resolved. This letter accurately reflects the nature of this conversation with one stipulation. That stipulation is that the installation of smoke and fire seals as documented in the licensee's letters of September 9, 1983 and April 30, 1984, will be sufficient to satisfy our fire protection guidelines and regulations, as contained in Appendix A to BTP APCS 9.5-1 and Appendix R to 10 CFR 50. It is the licensee's responsibility to assure the acceptability of the seals to meet Quality Assurance/Quality Control requirements.

### 3.2 Conclusion

The licensee's letter of April 30, 1984, accurately reflects the phone conversation of March 12, 1984, subject to the above stipulation.

### Principal Contributor:

D. Kubicki