

Vice President
Consolidated Edison Company of New York, Inc.
4 Irving Place, New York, N Y 10003
Telephone (212) 460-3819

Re: Indian Point Station Unit
No. 2 Docket No. 50-247

Mr. James P. O'Reilly, Director
Division of Compliance
970 Broad Street
Newark, New Jersey 07102

Mr. James P. O'Reilly

It is our understanding based on our telephone conversation of January 3, 1971 that you are satisfied that items # 3, 5, 6, and 7 in your December 7, 1971 letter were covered adequately in our December 6, 1971 report and no further information on these items is required prior to proceeding with the repair.

We discuss below the results of the tests referred to in Items 1, 2 and 4 of your letter.

Item 1. The tests to be performed on the cables at the point where the damaged cable was removed have been partially completed. The cables from two trays which will be the first to be spliced have been tested. All except the long term tests have been completed and show no degradation in cable properties. The long term tests are proceeding and will be completed after the aging period of 168 hours. In the meantime we plan to proceed with splicing of the cables in these trays. The cables from each tray will be subject to the short term tests and the data analyzed before splicing of the cables in that tray. If the long term tests as described in our December 6, 1971 report are unsatisfactory any cable that has been affected will be replaced.

Item 2. Resistance and mechanical strength tests have been performed on the typical splices. The tests on production splices cannot, of course, be made until the splicing is underway. In all cases the joint resistance is less than an equivalent length of unspliced conductor.

Mechanical pullout tests have been completed on the typical splices and the values obtained are satisfactory. The minimum pullout force for each conductor varies from 141 lbs. for #12 wire to 3730 lbs. for the 350 MCM cable.

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Item 4 Tests were performed on the original splice designs in accordance with specification EO-6068 included in our December 6, 1971 report.

When these tests were made it was found that the fire resistance of the splice could be significantly improved by placing another fiberglass sleeve over the fire resistant heat shrinkable tubing. The reason for this is that in some cases when subject to very intense flame the original heat resistant tubing, although it did not burn, did tear after a short time and exposed the splice materials beneath it to the flame.

We have conducted extensive fire tests in accordance with our original report on the modified splice and conclude that the fire resistance of the splice in all cases is superior to the original design and indeed is superior to the unspliced cable with its Asbestos braid jacket uninterrupted. For this reason we plan to modify the splicing and terminating instructions in our December 6, 1971 report by adding the following general note.

Note 16. All splices will be covered with Hygrade Thermoflex Flexible Fiberglass sleeving. This sleeving will overlap the cable asbestos jacket by at least two inches and be tied at each end with fiberglass cord.

The addition of the fiberglass sleeving will not reduce the thermal rating of the cables nor will it produce congestion in the splice boxes because in spite of its excellent fire resistant characteristics it is very thin and does not significantly affect the diameter of the splice. The fiberglass sleeving is closely woven to provide maximum abrasion resistance with high flexibility. The material is treated to remove all organic matter and to render the glass braid fray resistant. The sleeving specification conforms to NEMA Standard VSI-1962.

The test data and results from the above tests are available for your inspection if desired.

Very truly yours

A handwritten signature in cursive script, appearing to read "William J. Cahill". The signature is written in dark ink and is positioned below the typed name "William J. Cahill".