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April 19, 1989

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

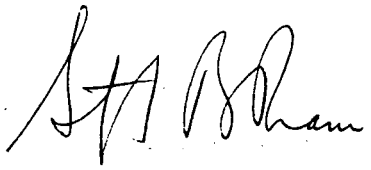
Document Control Desk
US Nuclear Regulatory Commission
Mail Station P1-137
Washington, DC 20555

SUBJECT: Response to Inspection Report No. 50-247/89-04

This is in response to the NRC's letter dated March 20, 1989 concerning routine Inspection No. 50-247/89-04 conducted by Mr. Lawrence W. Rossbach and Mr. Peter W. Kelly from January 24, 1989 to February 28, 1989. The attachment to this letter provides our response to the Notice of Violation included with the Inspection Report, and also clarifies some of the information set forth in the report regarding the Indian Point No. 2 Test Program.

If you or your staff have any questions, please contract Mr. Jude G. Del Percio, Manager, Regulatory Affairs.

Very truly yours,



cc: Mr. William Russell
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Attachment

Response To
Notice Of Violation
Set Forth In
Inspection Report 50-247/89-04
Dated March 20, 1989

Consolidated Edison Company of New York, Inc.
Indian Point Unit No. 2
Docket No. 50-247
April, 1989

Violation

Technical Specification 4.14.F requires that the cable spreading room Halon system be demonstrated operable by surveillance test.

Technical Specification 3.13.F requires establishment of a continuous fire watch within one hour and the preparation of a Special Report after 14 days if the cable spreading room Halon system is inoperable.

Technical Specification 6.8.1 requires that procedures be established and implemented for surveillance tests listed in the Technical Specification.

Pursuant to the above, Surveillance Test PT-EM19, Cable Spreading Room Halon Test, requires the Halon system to be tested for operability and upon test failure requires the implementation of remedial actions specified in TS 3.13.F.

Contrary to the above, when on November 8, 1989 and January 13, 1989 the cable spreading room Halon system failed to meet the PT-EM19 specified operability criteria, the remedial action specified in TS 3.13.F were not implemented.

This is a Severity Level IV Violation. (Supplement I).

Response

Surveillance Test PT-EM19 was initiated on November 8, 1988, and was turned over to the Senior Watch Supervisor (SWS) for sign-off on December 20, 1988. The test was not suspended during this period as stated in the Inspection Report. Rather, the Test Supervisor took the intervening 42 days to evaluate the test data prior to turning the completed test results over to the SWS. The intent, although in error, was to pin-point the specific problem and initiate work orders to resolve the malfunction. It is important to note that routinely upon completion of a test, and prior to test turn over to the SWS, there is an assessment/review of the test results to determine if the test was successful. Notwithstanding this assessment/review cycle, any delay in turning in a test is unusual and not in accordance with normal station practice.

In response to this event, the requirements of our procedures have been reinforced to the responsible Test Supervisor and to other personnel (both regular and outage) responsible for supervising tests that the SWS must be immediately notified of any test abnormality. In addition, it was stressed that it is important to turn in the test paperwork as soon as practicable. Since this was an isolated incident, it is not expected that further delays in submission of test results to the SWS will occur.

Upon notification on December 20, 1988 that PT-EM19 had failed, the SWS initiated actions pursuant to Technical Specification 3.13.F. Due to the initiation of Technical Specification 3.13.F, a review was initiated to determine the operability of the Halon System with Damper No. 217 open but with Fan No. 217 shutoff. Under this condition, operability was evaluated based on the Cable Spreading Room barrier provided by the ductwork and the Battery Room doors, whether the Halon would become diluted to a concentration that would degrade its fire suppression capabilities when Halon escapes via the gaps around the Battery Room Nos. 21 and 22 doors coupled with natural circulation through the exhaust ductwork. It was judged that there would not be excessive dilution of the Halon and thus the Halon System would remain operable. Based on this, the actions of Technical Specification 3.13.F were terminated.

PT-EM19 was not performed on January 13, 1989. A separate PMT was performed on the repaired Damper No. 217 to verify its operability as would be done after a repair of this type. While this PMT would incorporate some of the aspects of PT-EM19, it was not intended that the PMT would be the equivalent of or replace the required Technical Specification Surveillance of the Halon System covered by PT-EM19. The PMT on Damper No. 217 was initiated and the damper closed successfully. Thus, the determination was that Damper No. 217 was operable. However, it was noted in the PMT that Damper No. 23 failed to close while the PMT was being conducted and it too should have closed. The SWS was informed, the actions of Technical Specification 3.13.F were initiated and a review was conducted as to the operability of the Halon System. Since Battery Room No. 23 is located outside the Cable Spreading Room (unlike Battery Rooms Nos. 21, 22 and 24), and only its ductwork traverses the Cable Spreading Room to vent through the outside wall, there is no ventilation communication between Battery Room No. 23 and the Cable Spreading Room. Therefore, the Halon discharged in the Cable Spreading Room would not be diluted. Based on this determination, the actions of Technical Specification 3.13.F were terminated.

As discussed with the NRC during Inspection 89-04, the following analyses were initiated:

a) Due to failure to close Battery Room Ventilation Damper No. 217 (Battery Rooms Nos. 21 and 22), an analysis was developed to show with Damper No. 217 open and Fan No. 217 shutoff that any dilution of the Halon is above minimum concentration requirements and thus the Halon System can be considered operable even with Damper No. 217 open and Fan No. 217 shutoff. The analysis has evaluated if it is possible for a fire in the Cable Spreading Room to cause the associated Battery Room Ventilation duct to lose integrity prior to and after Operator action to initiate Halon injection.

b) For all four Battery Rooms (Nos. 21, 22, 23 and 24) the operability of each room's ventilation system was evaluated with respect to hydrogen concentration when either a fan is inoperable (no flow or degraded flow) and/or its respective damper(s) is (are) not in the normally open condition. This evaluation included recommendations of acceptable compensatory actions (i.e., set up natural convection, open doors, utilize COPUS blowers, etc.) that could be implemented until the component(s) is (are) fixed.

c) From the aspect of operability of the Cable Spreading Room Halon System with respect to the Fans/Dampers (Nos. 217, 23 and 24) used for ventilation of the Battery Rooms (Nos. 21, 22, 23 and 24) causing dilution of the discharged Halon, an evaluation was developed to determine what combinations of Fans/Dampers that will preclude dilution of Halon to a concentration below minimum Fire Protection requirements. This evaluation will be utilized in PT-EM19 in order to help determine the Halon System operability when all of the above noted Fans/Dampers do not shutoff/close. This analysis also has evaluated if it is possible for a fire in the Cable Spreading Room to cause any of the Battery Room Ventilation ducts to lose integrity prior to and after Operator action to initiate Halon injection.

The above analyses have been completed and the results are as follows. As a result of the first analysis, it has been determined that with Damper No. 217 open and Fan No. 217 shutoff, the Halon concentration will be at least 9% at the end of the 10 minute soak time. Since only 6% is required by Fire Protection guidelines, the Halon System was in fact operable at all times during November and December of 1988. The second analysis has shown that if the affected Battery Room has its door opened once in every 24 hours for 5 minutes to have air blown in with a blower having a minimum rated capacity of 500 cfm, the hydrogen concentration would remain below explosive limits. The results of this analysis are being incorporated into procedure SOP 11.1. The third analysis demonstrated that with all three Fans (Nos. 217, 23 and 24) operating and with all three Dampers (Nos. 217, 23 and 24) open, the Halon concentration would be above 7% at the end of the 10 minute soak time. Since only 6% is required by Fire Protection guidelines, the Halon System would still be operable. However, if during testing under PT-EM19, a damper/fan fails to meet the PT-EM19 requirements, a work order would still be issued to fix the component. With respect to duct integrity as a result of a fire, the analyses determined that the integrity of the Battery Room Ventilation ducts is not compromised prior to or after an Operator initiates a Halon release in the Cable Spreading Room. The changes to procedure SOP 11.1 and to PT-EM19 are expected to be incorporated by September 30, 1989. Upon incorporation of these changes to PT-EM19 and SOP 11.1, full compliance will be achieved.

Additionally, based on our review of Inspection Report 89-04 we would like to make two clarifications. First, Section 7.3 (page 13) states that test PT-EM1 was suspended until the radiation monitor was fixed. In actuality, the December 1986 PT-EM1 test was marked as a failure as is any test that cannot be completed due to equipment inadequacies. It was realized that until the radiation monitor operated properly, any new testing via PT-EM1 would also fail. Thus, until the equipment was fixed, new testing under PT-EM1 would be futile and therefore only the PT-EM1 test frequency was suspended. Second, Section 8.4 (page 15) indicates that tests were suspended on two occasions and states: "The practice of 'suspending' such test activities is considered a weakness." As discussed above and in accordance with station practices, tests are not suspended, they either pass or fail. The practice is to process a test that has plant equipment problems preventing test completion as a test failure. Therefore, the weakness noted in our test program does not pertain to Indian Point No. 2.