

Murray Selman
Vice President

Consolidated Edison Company of New York, Inc.
Indian Point Station
Broadway & Bleakley Avenue
Buchanan, NY 10511
Telephone (914) 737-8116

May 27, 1987

Ms. Marylee Slosson, Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Re: Consolidated Edison Company of New York, Inc.
Indian Point Unit No. 2 (DPR-26)
Docket No. 50-247
Technical Specifications for Generic Letter 83-28, Item 4.3
(Generic Letter 85-09)

Dear Ms. Slosson:

This letter is in response to a request from your staff for further information in support of our August 18, 1986 license amendment request to revise the Indian Point Unit No. 2 Technical Specifications consistent with the guidance contained in NRC's Generic Letter 85-09 relating to the reactor trip breaker automatic shunt trip modification (Generic Letter 83-28, item 4.3). In that submittal (Table 3.5-2, item 18) we proposed an allowed out-of-service time of forty-eight hours with one reactor trip logic train inoperable (incapable of tripping) before the reactor had to be placed in the hot shutdown condition. This is different from the standard technical specification requirement which permits six hours of operation prior to hot standby under such conditions and limits to two hours the time a train may be inoperable for surveillance testing.

We have reviewed this matter in light of your concern that an allowed out-of-service time of forty-eight hours might appear excessive and your request that we provide additional supporting justification.

Our proposal is based on our experienced engineering judgment that 48 hours is the proper amount of time necessary to consistently test and maintain both trains of reactor trip/bypass breakers and logic in a manner consistent with the manufacturer's recommendations, while avoiding any additional thermal cycling of the reactor due to unanticipated problems in completing the surveillance/maintenance. Recognizing that removal of a train of reactor trip logic from service for test or maintenance reduces the redundancy designed into this protection system, we firmly believe that forty-eight hours is an acceptable out-of-service time for one train in order to properly test and maintain it.

8706040135 870527
PDR ADOCK 05000247
PDR

A055
1/2

May 27, 1987

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

We have re-reviewed this issue with the intent of determining the minimum amount of time necessary to complete the requisite test and maintenance activities. Discussions with personnel responsible for performing reactor trip/bypass breaker testing and maintenance indicate that a realistic, best effort approach, assuming no problems or delays, requires about eight hours per train as opposed to the two hours permitted in the standard technical specifications. A minimum of four additional hours are required to provide a small time margin to accommodate unanticipated testing problems or delays. Combined, this results in approximately twelve hours minimum per train as being the minimum amount of time necessary to complete the requisite test and maintenance activities, including a small time margin for handling delays. We have endeavored to explain the apparent discrepancy between the standard technical specifications time and that revealed by our own evaluation. We note that the standard technical specification does not provide a basis for its two hour limitation. We believe that it is based on later vintage Westinghouse plants equipped with a solid state protection system and automatic channel test capability. By contrast, Indian Point Unit No. 2 is equipped with a relay protection system and no automatic test capability. Thus, the reactor trip logic and trip breaker/bypass breaker testing is a time consuming operation requiring that every combination of analog channel outputs be made up (2 out of 3, 3 out of 4, etc.) and the capability of the breakers to receive and operate from each such trip signal verified.

We wish to point out that Indian Point Unit No. 2 is of the prototype four loop Westinghouse design and one of the last to use relay protection logic. Older two and three loop plants would likely have fewer analog protection channels; thus on-line test and maintenance of reactor trip logic and trip breakers/bypass breakers would require less time. Similarly, later four loop Westinghouse designs equipped with solid state protection would require substantially less test time due to automatic test capability and in some instances fewer analog protection channels.

Additionally, we believe that an evaluation of the additional incremental contribution to core melt frequency from ATWS events which would be associated with a maximum 48 hour out-of-service time would demonstrate relative insensitivity to system unavailabilities of these low magnitudes. In the first place, an ATWS event is of relatively low probability. With one train out of service for up to 48 hours, a valid trip demand can be accommodated by automatic tripping from the opposite train. If a failure to trip occurred, it can be readily identified by trained operators. The

May 27, 1987

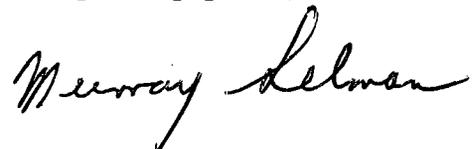
Re: Indian Point Unit No.2
Docket No. 50-247

operator would then manually trip the opposite train, manually de-energize the motor-generator sets supplying power to the control rod drives, or emergency borate the Reactor Coolant System; all of which would result in adequate reactor shutdown. These actions are delineated in the upgraded Emergency Operating Procedures. Furthermore, the ATWS Mitigating System (AMSAC) required by 10 CFR 50.62 will offer additional protection by tripping the turbine and initiating auxiliary feedwater using equipment diverse from the reactor protection system.

In conclusion, based on the reasons provided above, we firmly believe that a forty-eight hour allowed out-of-service time is appropriate for the Technical Specification requirements proposed in our August 18, 1986 submittal. To further substantiate and clarify our position we request that a meeting be held wherein we propose to discuss the steps required to perform the test and to entertain questions and suggestions from your staff.

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

Very truly yours,



Attachment
19.190.2.17.1

cc: U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Mr. William Russell
Regional Administrator - Region I
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Senior Resident Inspector
U.S. Nuclear Regulatory Commission
P.O. Box 38
Buchanan, NY 10511