

John D. O'Toole  
Vice President

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September 30, 1983

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 letter and attachment are in response to an August 29, 1983 telephone conversation with Mr. Roger Pedersen of your staff and your letter dated August 16, 1982 which requested additional information on various Emergency Core Cooling System (ECCS) components not addressed in our May 12, 1981 response to NUREG-0737, Item II.K.3.17, "Report on Outages of Emergency Core-Cooling Systems Licensee Report and Proposed Technical Specification Changes."

We trust this submittal is responsive to your requirements. If you or your staff have any further questions, please contact us.

Very truly yours,



attach.

cc: Mr. Thomas Foley, Senior Resident Inspector  
U. S. Nuclear Regulatory Commission  
P. O. Box 38  
Buchanan, New York 10511

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ATTACHMENT A

ADDITIONAL INFORMATION ON  
NUREG-0737 ITEM II.K.3.17,  
ECCS OUTAGES

NRC REQUEST:

In order for the staff to continue its review of Con.Ed's response to NUREG-0737, Item II.K.3.17, additional information is required.

A complete summary of each component outage in the CCP's, accumulators, BIT and RWST ECC systems for a continuous 5-year period of recent operation. For each outage, include the date, duration, and cause, the diesel generator train and component involved, and corrective action taken. Include outages for surveillance testing and planned, unplanned, or preventive maintenance. In lieu of a complete outage summary for the components indicated above, data from your Probabilistic Risk Assessment may be substituted.

CON EDISON RESPONSE:

As described in Consolidated Edison's May 12, 1981 submittal, ECCS equipment outage data at Indian Point Unit 2 (IP2) was collected and factored into the Indian Point Probabilistic Safety Study (IPPSS) which was submitted to the NRC on March 5, 1982.

The IPPSS calculates the unavailability of all ECCS equipment as well as other plant equipment. Further, the IPPSS calculates the risk--probability of frequency of core melt and health effects--results from the equipment's response to internal and external events.

Note that in the IPPSS the unavailability of an ECC system train is never precluded. It always has some chance of being unavailable. Actual plant historical data were used in the calculations presented in the IPPSS.

While data on charging pumps, accumulators, BIT, and RWST were not submitted in May 1981, they were developed as part of the IPPSS. The attached tables summarize the maintenance outage data for the boron injection tank (BIT) and for the positive displacement charging pumps collected for the IPPSS. IP2 does not have centrifugal charging pumps (CCP's) as part of the ECCS and uses three(3) positive displacement pumps (PDP's) in the normal Chemical Volume Control System. Although the PDP's are included in our Technical Specifications, this equipment is not relied on for the mitigation of design basis accidents that are described in the IP2 FSAR. No maintenance records were found which involved outages of the refueling water storage tank (RWST) or the accumulators. The data base period is January 1, 1977, through June 30, 1980. Maintenance events were recorded only during hot shutdown and power operation periods. Maintenance performed during cold shutdown periods was not included. The maintenance outage data include only those events which disable a component and prevent it from performing its required function as defined by the IPPSS system success criteria. Events which cause degraded component

operability as defined by the Indian Point Unit 2 Technical Specifications but which do not functionally disable the component are not included as outage events. For example, deviations in the boric acid solution concentration in the BIT or the RWST are not included as outages of these components for the circumstance where the BIT or the RWST remain aligned for emergency operation and the deviation is not severe enough to cause functional inoperability of the component for its IPPSS success criteria.

TABLES OF SUMMARY  
MAINTENANCE OUTAGE DATA

COMPONENT TYPE: BORON INJECTION TANK

<u>Year</u>	<u>Reporting Hours</u>	<u>Component Hours</u>	<u>Maintenance Events</u>	<u>Total Maintenance Hours</u>
1977	5,520	5,520	0	0
1978	3,912	3,912	0	0
1979	5,832	5,832	0	0
1980	2,568	2,568	2	99

COMPONENT TYPE: POSITIVE DISPLACEMENT CHARGING PUMP\*

<u>Year</u>	<u>Reporting Hours</u>	<u>Component Hours</u>	<u>Maintenance Events</u>	<u>Total Maintenance Hours</u>
1977	5,520	16,560	39	2,097
1978	3,912	11,736	9	1,477
1979	5,832	17,496	37	2,794
1980	2,568	7,704	4	481

\* Although Positive Displacement Charging Pumps are in the IP-2 Technical Specifications they are not relied on for mitigation of design basis accidents that are described in the FSAR. This data is provided for completeness of response and should not be used for ECCS outage studies.