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New York Power Authority

**J. Phillip Bayne**
Executive Vice President
Nuclear Generation

September 12, 1983
IPN-83-76

Director of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Mr. Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation

Subject: Indian Point 3 Nuclear Power Plant
Docket No. 50-286
NUREG-0737, Item II.B.2

Dear Sir:

The Attachment to this letter provides the results of the Authority's calculations regarding post-accident access to the hydrogen recombiner panel area. This submittal fulfills the commitment made in our letter dated June 3, 1983 (IPN-83-52). At the request of memebers of the NRC staff, the Authority is also providing a preliminary evaluation of post-accident access to selected manual valves in the containment spray system and the isolation valve seal water system.

Should you or your staff have any questions regarding this matter, please contact Mr. P. Kokolakis of my staff.

Very truly yours,

J. P. Bayne
Executive Vice President
Nuclear Generation

cc: attached

State of New York
County of Westchester

Subscribed and sworn to before
me this 12 day of September 1983

Jeanne La Luna
Notary Public

JEANNE LA LUNA
NOTARY PUBLIC, STATE OF NEW YORK
NO. 60-4614305
QUALIFIED IN WESTCHESTER COUNTY
TERM EXPIRES MARCH 30th 19 85....



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cc: Resident Inspector's Office
Indian Point 3
U. S. Nuclear Regulatory Commission
P. O. Box 66
Buchanan, New York 10511

Mr. D. Haverkamp
U. S. Nuclear Regulatory Commission
Office of Inspection & Enforcement
Region I
631 Park Avenue
King of Prussia, PA 19406

ATTACHMENT TO IPN-83-76
SUPPLEMENTAL INFORMATION REGARDING
ITEM II.B.2 OF NUREG-0737

NEW YORK POWER AUTHORITY
INDIAN POINT 3 NUCLEAR POWER PLANT
DOCKET NO. 50-286

The Authority has performed a shielding analysis to determine the dose rates at various locations in the vicinity of the hydrogen recombiner control panels after a Design Basis Accident (DBA). The analysis was based on lines 16, 56, and 60 as radiation sources and utilized source strengths at 48 hours following a DBA for conservatism (Note: Lines 16, 56 and 60 are utilized only during high-head recirculation). In addition, the floor plan in the vicinity of the recombiner control panels was patterned as a three-by-four (3x4) grid of detectors covering the area of the hydrogen recombiner panels.

The results of the analysis require that one(1) inch of steel shielding (or equivalent) be installed over the rectangular piping penetration located near the recombiner control panels. Assuming this penetration to be shielded, the calculated dose rate at each detector location is less than 5 R/hr. At only two of the twelve detector locations did the calculated dose rate exceed 4 R/hr. Therefore it is concluded that a single operator can access the recombiner control panels at two days following a DBA and stay for one hour without exceeding the 5 REM integrated dose limit set forth in NUREG-0737.

Furthermore, since a grid pattern of detectors was employed in the analysis, the results indicate there are no locally high radiation areas which would restrict movement in the vicinity of the recombiner control panels.

In addition to the analysis performed above, the Authority is in the process of identifying additional vital components (not previously identified in our letter dated April 18, 1982, IPN-83-25) which may be inaccessible during post-accident plant operation due to lines 16, 56 and 60 as radiation sources. Preliminary results indicate that there are a total of eight (8) manual valves which require post-accident operation but are located in areas which will be inaccessible during post accident high-head recirculation. Six of these valves (in the isolation valve seal water system) will be relocated to a low radiation area. The emergency operating procedures will be revised to ensure that the remaining two valves (in the containment spray system) will be operated prior to the commencement of the high-head recirculation phase. The relocation of the IVSWS valves and revision to the emergency procedures are contingent upon the 'final' results of the analysis. The Authority will inform the NRC if the final results alter these modifications. All modifications associated with this task will be completed prior to startup from the cycle 4/5 refueling outage, consistent with the schedule in the NRC Confirmatory Order dated March 18, 1983.