POWER AUTHORITY OF THE STATE OF NEW YORK

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August 11, 1980
IPN-80-75

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

Attention: Mr. Steven A. Varga, Chief
Operating Reactors Branch No. 1
Division of Operating Reactors

Subject: Indian Point 3 Nuclear Power Plant
Docket No. 50-286
Supplement to Confirmatory Order
(Interim Actions) 30 Day Response

References: 1) Letter, IP-FWG-9107, S. S. Zulla (PASNY) to B. H. Grier (NRC), LER 80-006/01T-0, dated June 27, 1980
2) Letter, IP-SM-9104, S. S. Zulla (PASNY) to B. H. Grier (NRC), Control Room Ventilation System, dated July 3, 1980

Dear Sir:

On March 7, 1980 (IPN-80-28) the Authority provided its response to the NRC February 11, 1980 Confirmatory Order, 30 day actions.

Following testing of the Control Room Ventilation System on June 14, 1980 (see References 1 and 2), it was determined that our Control Room Habitability response in the March 7, 1980 letter was no longer correct.

The corrected Item 2 response is provided in Attachment 1.

Very truly yours,

J. P. Bayne
Senior Vice President
Nuclear Generation

cc: attached

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cc: Mr. T. Rebelowski
Resident Inspector
U. S. Nuclear Regulatory Commission
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Buchanan, New York 10511

Mr. R. Remshaw
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ATTACHMENT 1

REVISED RESPONSE

TO

FEB. 11, 1980 CONFIRMATORY ORDER

ITEM B.2

CONTROL ROOM HABITABILITY

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
DOCKET NO. 50-286
AUGUST 11, 1980

2. To ensure control room habitability under accident conditions, the licensee shall reexamine ventilation intakes, location of potential plant leakage (ingress and egress), and control room filter capabilities, and submit the results of this review to the NRC.

RESPONSE:

The control room habitability, potential direct leakage sources (ingress/egress), and filter captability were examined. The as built drawings were reviewed and the habitability of the control room was verified by visual inspection of all the critical areas.

All doors into the control room lead to enclosed areas like the turbine building, control building stairwell, and not to the outside. The control room is constructed of concrete will all openings around cables sealed airtight with a fireproof compound; hence the infiltration and exfiltration through walls, floor and ceiling is negligible. The fresh air intake for the control room air conditioning system is located in the east wall of the control building below the electrical tunnel between elevations 30'-0" and 18'-0". This is sheltered by an enclosure formed by the electrical tunnel floor above and the concrete walls on the south and east sides.

Since the control building is physically separate from the containment and auxiliary building, there are no sources of contaminated leakage which could result in airborn concentrations in the control building, turbine building or at the control room fresh air intake in excess of those associated with containment and auxiliary building releases. Also, should it become necessary the control room is provided with self-contained breathing apparatus.

The filter system consists of a roughing filter, 1" charcoal filter and HEPA.

The charcoal filters were replaced on June 16, 1980 with a more efficient type of charcoal filter. The dampers were then repositioned to provide a higher incident air flow within the capabilities of the filters. These flows are measured at 1377 cfm for No. 31 fan and 1363 cfm for No. 32 fan.

In the FSAR the answer to question 14.13 indicates an incident make-up flow of 35 cfm is required to provide a slight positive pressure in the Control Room. Due to the difficulty of adjusting and maintaining the flow dampers to provide a low flow, it was determined that the dampers would better function when the makeup damper was adjusted to provide a flow of approximately 250 cfm. This ensures that a slight positive pressure is maintained in the Control Room.

The newly installed charcoal filters are of an improved type impregnated with triethylene diamine (TEDA) and potassium iodide (KI) to enhance its ability to adsorb organic radioiodine compounds. These filters were tested to ensure compliance with the Technical Specifications to section 4.5A.5.D. However the dose calculations, which were reanalyzed, used a value of 70% efficiency for organic iodides which is more conservative than the allowable value of 90% in the Technical Specifications.

Because the incident makeup flow was increased to approximately 250 cfm, it is expected that the thyroid dose to Control Room personnel would increase. To be conservative an incident makeup flow rate of 400 cfm and a recirculation flow rate of 1000 cfm were used in the new calculations. Other assumptions made in the calculations were the same as those used in the FSAR except where current NRC policy or regulatory values prevailed. The results of these calculations, even using these conservative assumptions, indicate a thyroid dose of 28.65 rem and a whole body dose of less than .5 rem for 30 days in the Control Room following a LOCA. This is within the FSAR Section 14.3.5 design criteria of 30 rem for personnel remaining in the CCR for eight hours following a LOCA.