POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT NO. 3 NUCLEAR POWER PLANT
P. O. BOX 215 BUCHANAN, N. Y. 10511
TELEPHONE: 914-739-8200

July 30, 1980
IP-JCS-9465

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

Attention: Stephen A. Varga, Chief
Operating Reactor Branch No. 1
Division of Operating Reactors

Subject: Indian Point No. 3 Nuclear Power Plant
Docket 286
Environmental Qualifications of Electrical Equipment

Dear Sir:

On July 2 and 3, 1980, Indian Point No. 3 was audited by Nuclear Reactor Regulation, and Franklin Institute Research Laboratories. Based on that audit, some outstanding concerns were identified. The following actions will be taken to resolve them:

(1) Valves 1869 A and B were missing from the list.

Response
Valves 1869 A and B have been added to the list of safety related equipment. The motor operators on these were qualified since they have "H" type motor insulation. See revised table.

(2) Define and justify "normal" Environment (temperature) inside Containment, Control Building, Primary Auxiliary Building and Electrical Cabling Tunnel and Penetration Area.

Response
The containment temperature will be maintained at a maximum of 120°F while in operation through the use of any combination of recirculation fans, service water, and outside make-up air. From the design specifications, the temperature in the Control Room will be maintained using two air conditioning units and auxiliary steam heat. The Primary Auxiliary Building is serviced by one make-up air fan and two exhaust fans. The upper and lower electrical tunnels are each serviced by the two exhaust fans. Two separate thermostats control the operation of the fans. One thermostat is set to turn on the exhaust fan at 95°F and the other at 100°F.

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(3) Justification for claim that the temperature will not vary from normal.

Response
At the Regional meeting at King of Prussia, Pa., dated July 7, 1980, the concern of ventilation servicing non-hostile environments was deferred until a later date, however, we intend to follow up this concern as soon as time allows.

(4) Additional information on terminal blocks and submerged cables.

Response
In our response it was indicated that further review was necessary.

The following is our plan to resolve the terminal block concern. All the terminal blocks that are connected to safety related equipment have been identified as to location and the environmental conditions. Since the actual type of block cannot be determined from the information available, a field survey is needed. Each block will be checked as to the manufacturer and then its environmental qualification will be compared to the environment at the location of the block. If the results are unsatisfactory, the block will be changed.

Submerged cables were reviewed and attached is a list of safety-related equipment that are connected by submerged cables.

(5) Provide justification for HCV 638 and 640 not needed to operate after 8 hours into an accident.

Response
The motor operators for HCV 638 and 640 will be changed during an outage of sufficient duration following the arrival of qualified replacement motor operators.

(6) Aging was not discussed

Response
In the NRC letter, A. Schwencer to W. Cahill dated March 5, 1980, which exempted Indian Point #3 from responding to I.E. Bulletin 79-01B and put IP #3 in the SEP Program, the issue of aging was not included in the particular sections of the DOR guidelines which was required to be addressed. As a result of the meeting in King of Prussia, Pa., on July 7, 1980, it became apparent that aging of safety-related equipment should have been included in the items to be addressed for aging characteristics and a report will follow.

Very truly yours,

S. S. Zulla
Resident Manager

JCS:jd
Enclosure

State of New York SS:
County of Westchester)

On this 1st day of August, 1980, personally appeared before me, S. S. Zulla, known to me as the person who executed the above document.

Ruthanne B. Bowman

RUTHANNE B. BOWMAN
Notary Public, State of New York
No. 4651904, Westchester County
Commission Expires March 30, 1981

Equipment Type	Loc.	Needed	Environment Parameter	Spec.	Qual.	Method	Reference
Motor Operator							
Residual Heat Removal	C	30 days	Temp	262	300	Sequential	(1) (2)
Flow Control Valves			Press	41	70		(20) (21)
1869 A & B			R.H.	100	100		
Limitorque SMB 00			Chem	Yes	Yes		
Insulation			Rad	$2X10^7$	$2X10^8$		
			Sub	No			
Electrical			Temp	262	300	Sequential	(1) (22)
Cabling & Splices	C	30 days	Press	41	80		(23)
Single Conductor			RH	100	100		
Silicone Rubber Insulation			Chem	Yes	Yes		Note (x)
Asbestos Braid Jacket			Rad	$2X10^7$	$2X10^8$		
350 MCM, 4/0 #4, #8, #10, #12			Sub	Yes	No		
Raychem Splices							
600 V Power Cable	C	30 days	Temp	262	300	Sequential	(1) (22)
Single Conductor, Silicone			Press	41	80		(23)
Rubber Insulation			RH	100	100		
Asbestos Braid Jacket			Chem	Yes	Yes		Note (x)
#12, #10, #8, #4, #410, #350 MCM			Rad	$2X10^7$	$2X10^8$		
Raychem Splices			Sub	Yes	No		
600 V Power & Control	C	30 days	Temp	262	300	Sequential	(1) (22)
Multi-Conductor #12 Kerite			Press	41	80		(23)
Insulation with Pair Braid			RH	100	100		
Zinc, Tape, Kerite Jacket overall			Chem	Yes	Yes		Note (x)
Raychem Splices			Rad	$2X10^7$	$2X10^8$		
			Sub	Yes	No		

NOTES:

Note x (This note x replaces the note x in the original response.)

The following is a list of safety-related equipment that are attached to cables that would be submerged in the event of an accident:

Containment Recirculation Fans #31, 32, 33, 34, and 35.

MOV 880 A, B, C, D, E, F, G, H, J, K	- FCV Charcoal Dousing Valve
MOV 856 A, B, C, D, E, F, G, H, J, K	- High Head SI Valve
MOV 899 A & B	- Residual Heat Exchanger Isolation Valves
MOV 745 A & B	- Residual Heat Exchanger Isolation Valves
MOV 746	- Residual Heat Exchanger Isolation Valve
MOV 747	- Residual Heat Exchanger Isolation Valve
HCV 638	- Residual Heat Removal Loop Flow Control Valve
HCV 640	- Residual Heat Removal Loop Flow Control Valve
MOV 889 A & B	- Recirculation Spray Valves
MOV 894 A,B,C & D	- Accumulator Discharge Isolation Valves
MOV 1802 A & B	- Recirculation Pump Discharge Valves

Hydrogen Recombiner #31 and #32

LT 938,939,940,941	- Sump Level Transmitters
FCV 1190	- Containment Pressure Relief Valves
FCV 1170 & 1172	- Containment Ventilation Purge Valves
FT 980, 982	- High Head Flow Transmitters
PT 403	- Reactor Coolant System Pressure
FT 925	- High Heat Flow Transmitters
FT 927	- High Head Flow Transmitters
TE 431 A & B, 441 A & B	
FT 945 B	- Recirculation Spray Flow Transmitters
FT 946 B & D	- Residual Heat Removal Recirculation Flow Transmitters