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September 17, 1997
IPN-97-126

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
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Washington, D.C. 20555

SUBJECT: Indian Point 3 Nuclear Power Plant
Docket No. 50-286
**120-DAY RESPONSE TO NRC GENERIC LETTER 97-01
CHEMISTRY RECORDS REVIEWED FOR
EVIDENCE OF POTENTIAL RESIN INTRUSION EVENTS**

- REFERENCES:**
1. NRC Generic Letter 97-01, "Degradation of Control Rod Drive Mechanism Nozzle and Other Vessel Closure Head Penetrations," dated April 1, 1997.
 2. NYPA letter, H. P. Salmon, Jr. to USNRC (IPN-97-055), dated April 29, 1997 regarding 30-day response to NRC Generic Letter 97-01.
 3. NYPA letter, J. Knubel to USNRC (IPN-97-097) dated July 21, 1997 regarding 120-day response to NRC Generic Letter 97-01.

Dear Sir:

The New York Power Authority has reviewed the plant historical records and determined that no incident of resin ingress similar to those which occurred in 1980 and 1981 at the Jose Cabrera (Zorita) plant has occurred at Indian Point 3 (IP3) nuclear power plant. This data search, which was performed in response to Generic Letter 97-01 (Reference 1), was structured to identify resin intrusion events into the primary coolant system with a magnitude greater than 1 cubic foot (30 liters). The threshold of 1 cubic foot was chosen as a conservative lower bound since it represents less than 15% of the estimated volume of resin released into the reactor coolant system (RCS) during the two events at Jose Cabrera.

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Analyses of reactor coolant for sulfate have been routinely performed during plant operation since January 3, 1990. Peak sulfate concentrations in the range of 15 to 17 ppm were used as the indicator of cation resin ingress. This concentration is approximately equivalent to the intrusion of 1 cubic foot of resin into the RCS.

For the period of plant operation prior January 3, 1990 (when the routine analysis for sulfate in reactor coolant began), the data search was based on a review of the plant's reactor coolant chemistry records relative to specific conductance of the reactor coolant. An elevation of 28 micro S/cm in specific conductance was used to screen possible resin ingress events equivalent to a volume of 1 cubic feet of resin. Additional data evaluation was performed in those instances where conductivity increases were greater than 28 micro S/cm to look for a corresponding depression in pH to corroborate a resin intrusion.

RCS chemistry records are not available for the period from plant startup in April, 1976 until January 4, 1977. The individual responsible for chemistry at IP3 during that period was questioned about possible resin ingress events and the individual could not recall any chemistry excursions during that period which would have indicated a primary resin ingress.

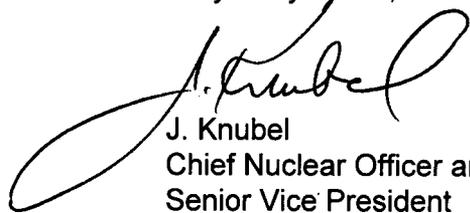
A review of plant records for boron, chlorides, fluorides and oxygen is not necessary because these species are not viewed as valid indicators of cation resin ingress and degradation within the primary coolant system of a pressurized water reactor. Borate, chloride and fluoride anions could be associated with the anion portion of mixed bed resin (cation plus anion). However, if mixed bed resin leakage to the RCS occurred, the cation portion of the resin would contain the sulfate indicator described above. Detectable dissolved oxygen in reactor coolant, during power operation with appropriate hydrogen overpressure on the volume control tank and specified residual dissolved hydrogen in the reactor coolant, could not occur and, therefore, could not be associated with resin in-leakage.

The Authority has followed the EPRI *PWR Primary Water Chemistry Guidelines* at IP3 since August 16, 1990 and has implemented revisions when issued. Indian Point 3's RCS water chemistry Technical Specifications are consistent with the current revision of the EPRI *PWR Primary Water Chemistry Guidelines*.

The Authority committed to submit this information by September 29, 1997 in Reference 2. Information about the IP3 inspection program for control rod drive mechanism nozzles and other vessel head penetrations was submitted in Reference 3.

There are no commitments contained in this letter. If you have any questions, please contact Ms. C. Faison.

Very Truly Yours,



J. Knubel
Chief Nuclear Officer and
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cc: Next page

cc: Regional Administrator
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