

50-247

September 28, 1973

R. C. DeYoung, Assistant Director for Pressurized Water Reactors

ASSURANCE OF INDIAN POINT UNIT 2 INSTRUMENT AIR FREEZER DRYER OPERATION WITHOUT FREEZE-UP

A violation of the permissible reactor coolant pressure during heatup occurred at Indian Point on May 18, 1973 due to closure of certain air-operated valves in the reactor coolant letdown system (Report of Abnormal Occurrence No. 3-2-5 in a letter from Con Ed dated May 25, 1973). Closure of the valves resulted from a failure of the instrument air pressure which was traced to plugging by frozen moisture in the refrigerant dryer. The principal cause of this frozen plug was identified as an improperly set refrigerant expansion valve (letter from Con Ed dated July 23, 1973).

Because of the interest generated at the September 12, 1973 session of the public hearing in this particular abnormal occurrence, the Board in its initial decision stated as follows:

"The Board directs the staff to be certain before a license is issued under this initial decision that all necessary measures have been taken to prevent another freeze up of the freezer-dryer or to assure that such an event will not interrupt the air supply."

I have reviewed with Con Ed (C. Jackson) the measures taken to provide this assurance. They are as follows:

- (1) The refrigerant expansion valve was properly reset in May shortly after the incident. No freeze-up problems have been experienced since then.
- (2) An operator surveillance check on the dryer performance every 4 hours around the clock has been initiated. This check is recorded in the appropriate log.
- (3) Both refrigerant dryers are operated continuously in parallel. This allows for the potential plugging or failure of one dryer.
- (4) The low instrument air pressure alarm in the control room which had been previously set too close to the operating pressure (~90 psi) and therefore was continuously alarmed and consequently ignored by the operator has been reset to a lower pressure (~75 psi) where its actuation in the control room will draw operator response.

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I conclude that the above provisions will provide the adequate assurance requested by the Board. Reactor Operations has verified the above actions. I also understand that Con Ed is expediting the design, procurement, and installation of an automatic bypass system around the refrigerant dryer.

Karl Kniel, Chief
PWR-2
Licensing

cc:
K. Kniel
Docket file