

NIAGARA MOHAWK POWER CORPORATION

NIAGARA  MOHAWK

Nine Mile Point Nuclear Station
P. O. Box 32
Lycoming, New York 13093

November 3, 1972

Mr. Donald J. Skovholt
Assistant Director for Reactor Operations
Division of Reactor Licensing
United States Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. Skovholt:

Re: Provisional Operating License: DPR-17
Docket No.: 50-220

On September 19, 1972, with the Nine Mile Point Unit operating at 602 MW (e) the identifiable leakage into #11 drywell equipment drain tank started to slowly increase. The trend of this leakage closely followed previous trends resulting from recirculation system valve packing leakage into the drywell equipment drain tanks. The primary inputs to #11 drywell equipment drain tanks consist of #11 and #12 reactor recirculation pump suction and discharge valves and #13 reactor recirculation pump discharge valve. A planned program to discover the exact source of leakage was undertaken. The unit load was reduced to 510 MW (e) and reactor recirculation pumps #11, #12 and #13 were individually isolated to determine the effect in total drywell leakage. Throughout this period accurate determination of leakage was obtained on a continuous basis. No substantial change in leakage could be detected during the isolation attempts, however, the pressure on #11 reactor recirc pump low pressure seals fluctuated during the time that the pump was isolated as seen in the control room indication.

On September 20, 1972, surveillance data revealed that leakage into #11 DWEDT was approaching the limiting condition for operation (25 gpm total). At 1745 hours plant shutdown was initiated in order to repair the pump seal on #11 reactor recirculation pump and repack certain recirculation system isolation valves. Four hours after starting to shutdown, the leakage reversed its trend and began to decrease with power level. Cold shutdown was achieved at 1400 hours on September 21, 1972 and recirculation system repairs were started.

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Mr. Donald Shovholt
U.S. Atomic Energy Commission

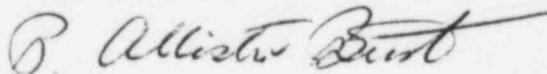
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During the repair to the #11 recirculation pump seal, the pump suction valve was closed manually as the motor operated actuator (Limiterque valve operator) could not close the valve. Following repairs to the pump seal, the suction valve was cycled to test the valve operator, however, the valve locked up in the open position. Neither the motor operated or manual mode of operation could move the valve. The valve was jacked to the closed position and locked there.

Inspection of the valve operator revealed that extensive internal damage had occurred and immediate repairs could not be made. Damage to the valve operator was identified as a broken worm shaft in the drive assembly and a cracked case around the stem drive nut which damaged a thrust bearing assembly on the lower side of the drive nut. A replacement valve operator was ordered. Until installation of the replacement valve operator, the plant output was limited to 80% as only four of the five recirculation loops were in service.

On the weekend of October 28, 1972, the limitorque SMA-1 valve operator was successfully replaced by an SMB-1 valve operator as the SMA-1 is no longer made. The replacement unit is larger than the original and has greater power transmission capabilities, however, the driver motor is the same size as on the original unit. During this outage, considerable packing maintenance was also accomplished on all of the reactor recirculation isolation valve packing. All work was completed by October 29, 1972 and the plant was started up with all five recirculation loops available for service.

Very truly yours,



P. Allister Burt
General Superintendent
Nuclear Generation

PAB/cm