DISCHARGE MONITORING REPORT
PERMIT NUMBER NY0001015
NINE MILE POINT NUCLEAR STATION
APRIL 1990

COMMENTS

1. There were no discharges from the Unit 2 Waste Neutralizing Tank to the Sewage Treatment Facility during April 1990.

2. On April 16, 1990, the Unit 1 oil spill catchment basin was discharged because the basin was near its maximum design level requiring discharge. In the event the basin was allowed to exceed this level, then there would not be complete assurance that the maximum credible oil spill would be contained. This outfall is presently being added to the SPDES Discharge Permit. Prior to the discharge, an oil and grease sample was obtained and was found to contain <0.1 mg/liter oil and grease. Total suspended solids and pH were 0.5 mg/liter and 7.6 respectively. The volume discharged was approximately 120,645 gallons of water.

3. The following summary comment concerns the discharge of water from the Unit 2 circulating water system (outfall 040). The discharge was initiated on November 2, 1989 under an Emergency Authorization issued by the NYSDEC for the discharge of copper contaminated water. Details of the discharge during November and December 1989 are provided in the comment sections of the November and December Discharge Monitoring Reports.

   During the months of January, February, March, and April 1990, the discharge of water continued under the terms and conditions of an amended Emergency Authorization dated December 22, 1989. The Amendment basically allows for the discharge of the Unit 2 circulating water system through the normal station blowdown routes and/or through the Unit 1 facility circulating water system. The Amendment also limits the concentration of total copper in the mixing area in Lake Ontario to 17 ppb, and requires a monitoring frequency of twice per week.

   Any copper discharged from the circulating water system during April 1990 is believed to have originated from copper precipitated onto the carbon steel and concrete structures within the circulating water system and, to a smaller extent, from normal copper loss from the Admiralty brass condenser tubes. The source of the precipitated copper originated from the acid leak into the circulating water system in October 1989. Copper concentrations during April 1990 ranged from 213 to 497 ppb (344 ppb average) total copper and 110 to 326 ppb (210 ppb average) soluble copper. The Unit 2 facility operated at or near full power during April 1990.

   Copper-Trol, an azole based copper corrosion inhibitor, was added to the Unit 2 circulating water system on April 28, 1990. The addition followed the requirements of the NYSDEC as contained in Niagara Mohawk's request dated September 11, 1989 (NMP-53843), and the departments subsequent approval dated November 11, 1989. Results of online corrosion monitoring indicate that copper loss from the condenser tubes has decreased appreciably from system design specifications as a result of Copper-Trol use.

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The total copper concentration in Lake Ontario during April 1990 was maintained below 17 ppb as a result of the discharge of the Unit 2 circulating water system. Copper concentrations ranged from 1.4 to 9.7 ppb total copper. The discharge of the Unit 2 circulating water system was through the normal station blowdown pathway and through the Unit 1 facility circulating water system during April 1990.

There were no occasions during April 1990 when the temporary piping from the Unit 2 circulating water system to the Unit 1 intake canal developed significant leaks.

(0405b)