

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

COMMENTS

1. There were no discharges from the Unit 2 Waste Neutralizing Tank to the Sewage Treatment Facility during January 1990.
2. A faulty isolation transformer caused the loss of both the station's process computer and strip chart recorders ability to record outfall 040 (Cooling Tower Blowdown) discharge flow during the period of 0830 hrs January 15 until 1010 hrs January 20, 1990. Flow data for this period were estimated based on rated pump flows which remained fairly consistent since the station was shut down during the report period. Although an urgent Work Request was written immediately, the problem required five days to locate and correct because of its complexity. Outfall 040 (Cooling Tower Blowdown) discharge temperature and condenser intake/discharge delta temperature were not affected.

Also, on January 6, 1990 the strip chart input channel which records outfall 040 (Cooling Tower Blowdown) discharge flow was inoperable for approximately 2.5 hours. Flow data for this short period was obtained from the hours immediately preceding the lapse and are considered conservative.

3. The following summary comment concerns the discharge of water from the Unit 2 circulating water system. The discharge was initiated on November 2, 1989 under an Emergency Authorization issued by the NYSDEC. 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 month of January 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 January 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. Copper concentrations ranged from 40 to 235 ppb (76 ppb average) total copper and 34 to 68 ppb (47 ppb average) soluble copper. The Unit 2 facility did not operate during this report period and the low total copper concentrations are believed to be the result of reduced solubility of copper at cooler temperatures. The maximum total and soluble copper levels occurred shortly after the start of some circulating water pumps that were previously idle for several weeks.

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The total copper concentration in Lake Ontario during January 1990 was maintained below 17 ppb as a result of the discharge of the Unit 2 circulating water system through both Units 1 and 2. The discharge was limited to the normal Unit 2 blowdown pathway with the exception of January 1 through 8 when the Unit 1 facility was also utilized.

A continuation of the description of the discharge of the Unit 2 circulating water system to Lake Ontario will be included in subsequent Discharge Monitoring Reports.

