

File

BALTIMORE GAS AND ELECTRIC COMPANY

P.O. BOX 1475

BALTIMORE, MARYLAND 21203

NUCLEAR POWER DEPARTMENT
CALVERT CLIFFS NUCLEAR POWER PLANT
LUSBY, MARYLAND 20657

May 12, 1981

Mr. Peter Wigginton
Waste Management Administration
2nd Floor - Lab Tower
201 West Preston Street
Baltimore, MD 21201

Dear Mr. Wigginton:

Per our State Discharge Permit No. 74-DP-0187A and NPDES No. MD 0002399, please find the attached follow-up information on an inadvertant discharge from the #11 Waste Neutralizing Tank, monitoring point #104 via the main cooling water outfall #001. This occurrence on April 23, 1981 was notified to your office on May 12, 1981 by a telephone call to Ms. Debby Ford.

Should you have questions regarding this information, we would be pleased to discuss them with you.

Very truly yours,

I. B. Russell

I. B. Russell
Plant Superintendent

Attachment
LBR/REA/fcb

cc: J. H. [unclear]
Russell
Specialist

At 1650 on 04/23/81, the outside operator discovered the drain valve for #11 Waste Neutralizing Tank (WNT) open. The operator immediately shut the valve to terminate the discharge. The WNT was placed in service at 1420 to receive make-up regeneration waste. At approximately 1530 the water treatment specialist started regenerating #12 make-up train. Between 1545 and 1645, approximately 75 gallons of 97% H_2SO_4 which was diluted to 6% with a 27 gallon per minute dilution flow was discharged to the #11 WNT. Starting at 1630, 50% NaOH, which was diluted to 5% with a 21 gpm dilution flow, was being discharged to the #11 WNT when the open drain valve was discovered. It was determined that 50 gallons of 50% NaOH were discharged.

Since the WNT drain valve was not shut, all regeneration sent to #11 WNT from 1545 to 1650 was discharged to the Chesapeake Bay, after being diluted with 1.2 million gpm circulating water flow (discharge 001), without ensuring that the regeneration waste was in compliance with our discharge permit.

The cause for the unmonitored discharge was operator failure to follow approved procedures. Following the discharge, procedures controlling the WNT were reviewed and found to be adequate. Operators involved in the occurrence received appropriate disciplinary action. In addition, all operators will be made aware of the occurrence.

The dilution of the accidentally released materials, both sulfuric acid and sodium hydroxide, was so great that no pH shift would be expected. The concentrated sulfuric acid was diluted to a 6% solution before the release into the 1.2 million gpm of water and this release occurred over an hour period. The resultant release of 28.25 gpm into 1.2 million gpm would be diluted, one part in 960,000 parts. This would result in no pH shift of significance.

Also the sodium hydroxide release of 50 gallons which was diluted to a 5% solution occurred into 1.2 million gpm of circulating water over 20 minutes. The 23.5 gpm of 5% sodium hydroxide into 1.2 million gpm of water is one part in 480,000 parts dilution. This dilution would result in an imperceptible change in pH. Therefore, no adverse effects to the environment are expected.