Allied Chemical

Industrial Chemicals Division
12260 South Carondolet Avenue
Chicago, Illinois 60633
(312) 933-8800

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ILL. ENVIRONMENTAL PROTECTION AGENCY
MAR 14 1980
DIV. WATER POLLUTION CONTROL
FIELD ... REG. 2

Illinois Environmental Protection Agency
Division of Water Pollution Control
2200 Churchill Road
Springfield IL 62706

Subject: Notification - NPDES Permit #IL0002640

Gentlemen:

At 1020 on March 3, 1980 a routine sample from Outfall 001 was taken by laboratory personnel. This sample was analyzed for pH at approximately 1300, and the pH was found to be 3.9, indicating there was an acid leak somewhere in the cooling water system. Operational personnel were contacted and survey sampling was done to find the source. At approximately 1330, a leak was discovered in #5-6 dry tower coolers. Calumet Works' personnel immediately took steps to stop the leak by plugging off the affected area and making repairs to the unit. Accelerated sampling of Outfall 001 was also continued during this period.

As previously discussed with Agency representatives, cooler leaks are normally readily apparent by visible emissions and a loud crackling sound. The situation at #5-6 dry tower coolers is temporarily different, however. Construction work involving installation of new shell and tube heat exchangers to replace #5-6 dry tower coolers (described to you in previous correspondence), combined with temporary cold weather shrouding, made observation of the coolers difficult. Several large sections of this shrouding had to be removed to discover and then isolate the leak. The construction work on the new coolers also hindered location and repair of the leak, increasing the duration. The repair effort began at 1330, and was completed at 1615.

The Permit limitation for pH at Outfall 001 is 5.0 to 10.0. The pH of the Outfall was at its lowest pH of 2.9 at 1445. By 1500 the pH was at 9.2 due to neutralization efforts and from here on the pH remained between 5.8 and 7.0 until, at 1615, repairs were completed. Total flow through Outfall 001 resulted in approximate dilution of 3000 to 1. Impact upon the Calumet River is felt to be small.

EPA Region 5 Records Ctr.
288560

Currently, new tube and shell heat exchangers are in place to replace the existing cascade-type lead coolers. The Works is awaiting delivery of special connecting piping to complete the installation. Completion is anticipated by the end of March. The new coolers should greatly reduce the probability of this type of incident from occurring in the future.

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein; and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

If you have any questions, please contact me.

Very truly yours,

CHEMICALS COMPANY

C. T. Nielsen
Plant Manager

JLH:er