

Yellow
Memorandum

6240
NREAD

DATE: 16 Apr 87

FROM: Environmental Control Specialist, Natural Resources and Environmental Affairs Division, Marine Corps Base, Camp Lejeune
TO: Supervisory Ecologist, Natural Resources and Environmental Affairs Division, Marine Corps Base, Camp Lejeune

SUBJ: MEMORANDUM OF CHEMICAL SPILL - CENTRAL HEATING PLANT

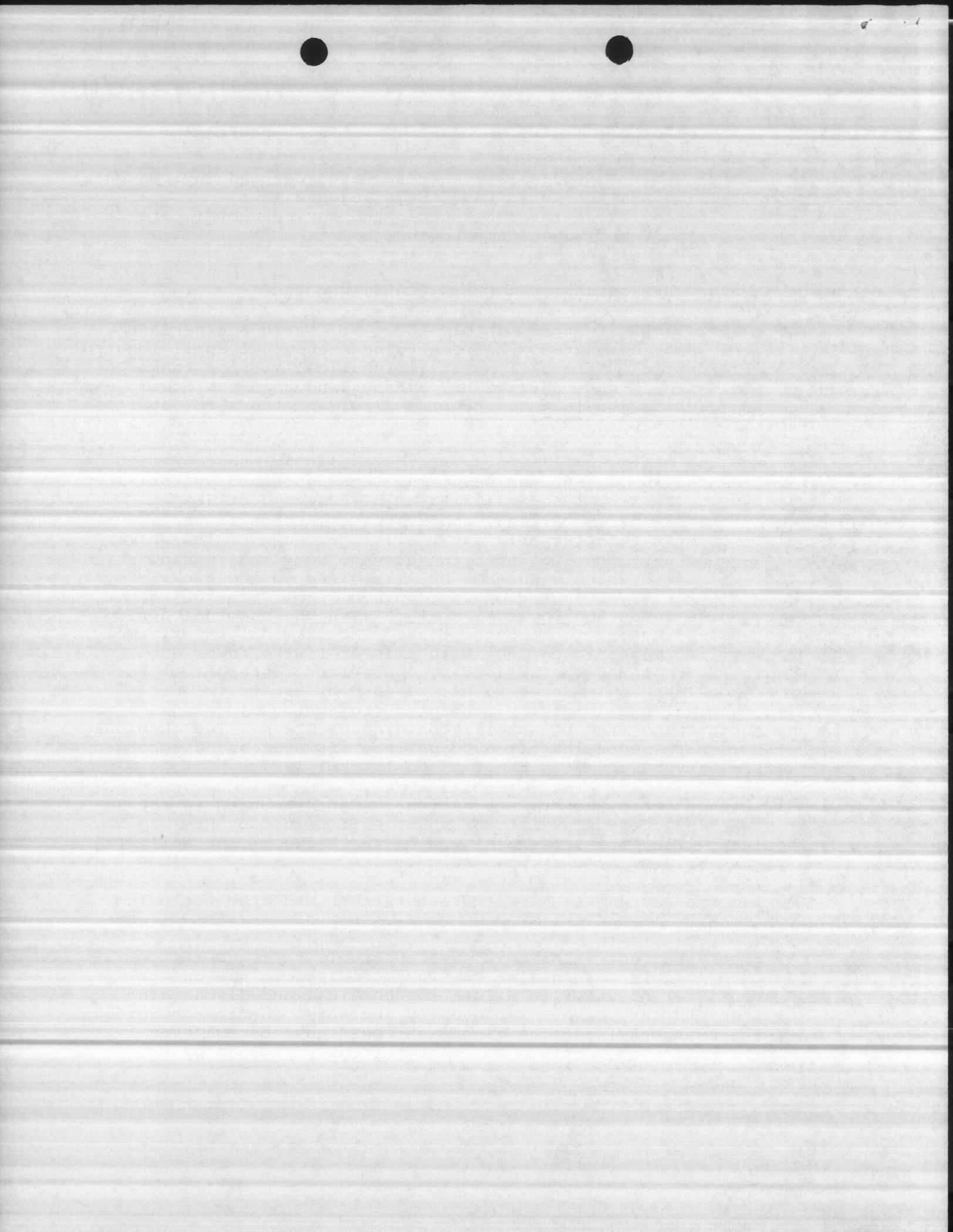
1. On 1 April 1987 at approximately 1620, Mr. David Southerland, Utilities Branch, contacted NREAD regarding a chemical spill located outside the Central Heating Plant at the chemical storage tanks. Ms. Gleneé Smith, NREAD, advised Mr. Southerland that the Steam Generation Section should call the Base Fire Department to report the spill.

2. The source of the spill was a vertical polyethylene tank with a storage capacity of 5600 gallons. The tank contained approximately 4000 gallons of a neutralizing amine composed of 40% cyclohexylamine, 40% morpholine, and 20% water, which is an extremely caustic and flammable material. The cause of the spill appeared to be equipment failure, in that the coupling, behind the shut-off valve which attached the site-glass to the tank, had broken off. Mr. Ernest Humphrey, Boiler Plant Operator Leader, was exposed to fumes and physical contact with the chemical during his successful attempt to stop the leak. The chemical is extremely hazardous if it comes in contact with skin or if the fumes are inhaled. Mr. Humphrey was advised by supervisor to report at the Naval Regional Medical Center to be examined by doctors. The spilled chemical was initially prevented from being discharged to the surrounding area by a spill containment basin. The chemical was diluted with approximately 6000 gallons of water and discharged to the sanitary sewer, at a ph of 8, on 1 April 1987.

3. Ms. Gleneé Smith and Mr. Ken Warren, NREAD, reported to the spill scene in accordance with the phone call placed by Mr. Southerland. The Fire Department was on the scene of the spill when NREAD arrived.

4. During the incident, NREAD representatives made the following observations:

a. There was not a suitable pump available to transfer the concentrated liquid to containers. This resulted in the use of large quantities of water to dilute the chemical and discharging it into the sanitary sewer. It greatly increased the time required to resolve emergency, and the situation would have become even more critical if the leak had not been initially stopped by Mr. Humphrey.



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b. A spill reporting sign, in accordance with Base Order 11090.1B, enclosure (2), page 2, paragraph 1c, was not installed at the site.

c. The containment basin was defective in that significant quantities of chemical leaked out of the basin. This required that the chemical be discharged to the sanitary sewer immediately rather than waiting until the next day when the situation could have been handled under better circumstances.

Gleneé L. Smith

GLENEE SMITH
ENVIRONMENTAL CONTROL SPECIALIST



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