

American Cyanamid had a release of formaldehyde on 6/16/88 due to a computer error and the problem has since been corrected. American Cyanamid is currently under State Order #8012 which requires that they comply with Section 22a-174-20(ee)(1) concerning a demonstration of Reasonable Available Control Technology (RACT) for the control of Volatile Organic Compounds (VOC's). In American Cyanamid's case RACT has been determined to consist of an overall eighty-five percent reduction in VOC emissions from any process source or emission point with potential to emit greater than forty pounds per day or five thousand (5000) pounds per year uncontrolled.

Also incorporated in State Order # 8012 is a volatile organic compounds fugitive emission control program. This essentially is a program developed to reduce fugitive volatile organic compound emissions from the entire plant.

In speaking with Thomas Archer, the Environmental Manager at American Cyanamid, he said that American Cyanamid will be initiating programs to achieve greater than eighty-five percent reduction in VOC emissions by making modifications to existing control equipment with the intention of eliminating odors from the plant. The emphasis will initially be toward the reduction of formaldehyde. Building #1 will be first to undergo the review. American Cyanamid refers to this program as the "Formaldehyde Emissions Reduction Plan" and implementation will take effect early in 1989. This program is to include all sources of formaldehyde at American Cyanamid.

In conclusion, the source of the strong sewage type odors detected by the Conrail employees on 8/16/88 and by complainants on other dates appears to be the Town of Wallingford Sewage Treatment Plant. This strong odor or some component of it may have made the Conrail employee ill. As mentioned previously, since the cessation of the sludge dumping coupled with the flaring of the off-gases from the digesters only one odor complaint about the Town of Wallingford Sewage Treatment Plant was received and this complaint was caused by a power failure at the treatment plant. Odors from American Cyanamid were detected but none were deemed objectional by Air Compliance staff members. State Order #8012 requiring the achievement of RACT, the VOC Fugitive Emission Control Program designed to minimize volatile organic compound emissions from the plant, and the American Cyanamid "Formaldehyde Emissions Reduction Plan" should reduce odors from American Cyanamid.

PUBLIC WORKS DEPARTMENT
INTEROFFICE MEMORANDUM

TO: Honorable William W. Dickinson, Jr., Mayor

FROM: Mr. Steven L. Deak, Director of Public Works

SUBJECT: TRANSFER OF \$2,000.00 TO ACCOUNT NUMBER 001-5140-500-5100
MAINTENANCE OF BUILDING-701 CENTER STREET (SIMPSON SCHOOL)

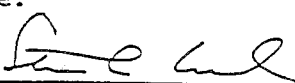
DATE: October 18, 1988

Dear Mayor Dickinson:

In reference to the above subject transfer additional funds are necessary to do the following work at 701 Center Street (formerly Simpson School). This work is necessary in relocating the Recreation Department to the former Comptrollers Office.

- 1) Relocate all electrical switches & thermostats.
- 2) Remove existing partitions & replace with headers.
- 3) Trim lally columns & existing pipes with pine.
- 4) Remove sink & existing counter.

We have a savings in this account because we were able to obtain a new kind of pressure cleaning machine which was less expensive.


Steven L. Deak, Director
PUBLIC WORKS DEPARTMENT

SLD:atf
Enclosure

Identifying the source of the strong sewage odor. No conclusion was made on this investigation. The wind speed and direction recorder at American Cyanamid malfunctioned from 8:00 p.m. on 8/15/88 to 1:00 a.m. on 8/16/88.

According to Mr. Michael Burkett of O.H. Materials Corp, the consultant for Conrail, the employee passed out between 12:01 a.m. and 1:00 a.m. on 8/16/88. The wind direction and speed for the remainder of the morning was as follows:

	<u>WIND SPEED</u>	<u>WIND DIRECTION</u>
3:00AM - 4:00AM	2	variable
4:00AM - 5:00AM	2	W
5:00AM - 6:00AM	2	W
6:00AM - 7:00AM	1	NW
7:00AM - 8:00AM	1.5	W
8:00AM - 9:00AM	4	W
9:00AM - 10:00AM	10	instrument malfunction
10:00AM - 11:00AM	12	W

It is mentioned in Gary Rose's investigation report that American Cyanamid personnel reporting for the midnight shift on 8/15 and 8/16/88 noticed a strong "sewer-type" odor on approaching the plant at the John Street/So. Cherry St. intersection. As shown above the general wind direction from 2:00am - 10:00am on 8/16/88 was out of the west. It is therefore possible that the odor detected by both the Conrail employee and American Cyanamid personnel emanated from the Wallingford Sewage Treatment Plant located on John Street.

From 6/20/88 - 9/6/88 the Air Compliance Section of DEP received the odor complaints about the Wallingford Sewage Treatment Plant. In the majority of these complaints the complainants say that they detected a strong sewage odor in the evening and very early morning. One complainant said the odor caused headaches, sore throats and sore eyes. The finding from the complaint investigation was that the treatment plant dumps sewage sludge from the digesters into open lagoons approximately once a week and that this dumping was the main source of the strong sewage odors. A complaint investigation conducted on 8/2/88 disclosed that the digesters had not been working properly recently giving rise to stronger than usual odors when pumping sludge from the digesters to the lagoons.

Due to the large number of odor complaints the Wallingford Sewage Treatment Plant ceased dumping sludge into lagoons after 8/15/88. This dumping on 8/15/88 was the most likely cause of the strong sewage odor detected by the Conrail employees between 12:00 am - 1:00 am on 8/16/88.

Currently the sewage sludge from the digesters at the treatment plant is being hauled to the Mattabassett Sewage Treatment Plant in Lowell. As of 8/22/88 primary digester #1 has been taken off line and is under repair. Primary digester # 2 and the secondary digesters are currently on line and both are currently venting to a flare.

Since the cessation of the dumping of the sludge into the lagoons from the digesters only one odor complaint about the treatment plant has been received. This odor was traced to a power failure to the secondary settling tanks, rotating biological contactors and disinfection equipment.

Thus the cessation of sludge dumping into lagoons coupled with the flaring of off-gases from the digesters has reduced the strong sewage odors that have emanated from the Wallingford Sewage Treatment Plant.

In no instance did any Air Compliance personnel detect an objectionable odor emanating from the treatment plant while investigating complaints at the treatment plant or when conducting a surveillance of the area.

Of the several surveillances conducted by Air Compliance personnel of the Wallingford area no objectionable odors were detected. Odors detected from American Cyanamid were reported as plastic type, formaldehyde type, weak coffee type, melamine type and an alcohol type.

On 8/19/88, a cloud of white particulate of 40% opacity was observed being emitted from the stack of the #2 spray dryer's scrubber at American Cyanamid by Debra Tedford, a violation of Section 174-18(a)(1)(ii). Notice of Violation # 11615 has been issued to American Cyanamid and as a result actions and studies are being undertaken for improvement of the overall operations of the spray dryer system.