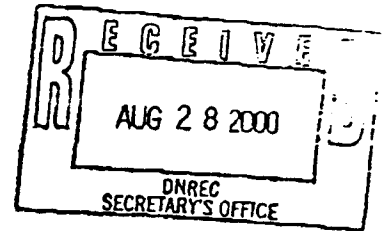




UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF INSPECTOR GENERAL
MID-ATLANTIC DIVISION
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copy

August 22, 2000

MEMORANDUM

SUBJECT: Hotline Complaint on Metachem
Hotline Assignment Number 99094

FROM: Carl A. Jannetti *Carl A. Jannetti*
Divisional Inspector General for Audit
Mid-Atlantic Division

TO: Bradley M. Campbell
Region III Administrator

The Office of Inspector General received a hotline complaint from the Coalition to Stop Metachem's Polluting (the Coalition). The Coalition alleged that Metachem, a manufacturer of chlorinated benzene compounds, is violating the Clean Air Act. In response to the Coalition's complaint, we determined whether EPA Region III:

- ◆ Took sufficient action to address the Coalition's complaints.
- ◆ Ensured that Metachem complied with applicable federal regulations.
- ◆ Performed adequate oversight of Delaware's efforts to regulate Metachem.

We also evaluated Metachem's recycling operations to determine if the facility was poisoning the environment, as alleged by the Coalition.

BACKGROUND

Metachem is located in New Castle County, Delaware and has been in operation since 1966. In 1986, the Delaware Department of Natural Resources and Environmental Control (DNREC) began receiving odor complaints from a resident in Newark, DE, approximately 10 miles west of the facility. The same resident later formed the Coalition and became its Spokesperson in an effort to gain support

for her cause. The Spokesperson told us she frequently detects odors as a result of Metachem's plant operations. She believes these odors are from toxic chemicals, and are causing health problems in her area.

The Coalition gathered information on Metachem and wrote to various state and federal agencies, including EPA Region III and DNREC stating that the facility was violating the Clean Air Act. In 1992, EPA began receiving informal complaints from the Coalition and worked with DNREC to address the odor complaints for four years. In 1996, the Coalition contacted the EPA Region III Administrator and made an official complaint to which EPA and DNREC again responded. On April 22, 1999, the Coalition sent a letter to the EPA Office of Inspector General (OIG) contending that EPA had not taken adequate enforcement action against Metachem. Also included in the Coalition's complaint was an allegation that Metachem was performing an illegal recycling process. Because of the complexity of the recycling process, we obtained technical assistance from our Engineering and Science Staff.

RESULTS OF REVIEW

To determine whether the Coalition's allegations were valid, we evaluated EPA Region III's and DNREC's efforts to address the odor complaints. During our review we met with DNREC officials and employees from Region III's Office of the Regional Administrator, Air Protection Division, and Criminal Investigation Division. We reviewed correspondence EPA received from the complainant and EPA's efforts to address the complaints. We also reviewed EPA's and DNREC's air enforcement files for Metachem. These files contained information such as inspection reports, air permits, correspondence, stack test results and data obtained from EPA and DNREC's air databases.

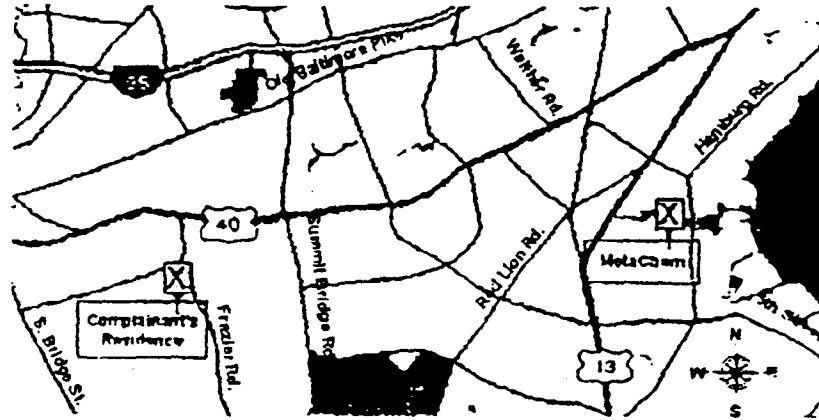
We interviewed the Spokesperson for the Coalition and reviewed the Coalition's files on Metachem. We also interviewed a former employee of Metachem because the Spokesperson suggested this person could provide technical details regarding the facility's manufacturing processes, and why Metachem is responsible for the health problems the complainant is experiencing.

EPA Region III Efforts

In April 1996, the Coalition sent a letter to the EPA Region III Administrator complaining of odors from toxic chemicals and the associated health problems. The Coalition alleged these toxic chemicals were being emitted from Metachem. As required by new federal regulations, EPA had already been planning to conduct an inspection at Metachem. The Region's April 10, 1996 inspection disclosed that the facility was in violation of these regulations. On April 18, 1996, the Regional Administrator sent a response to the Coalition explaining that an EPA inspection was conducted and that EPA was working with DNREC to ensure Metachem

complied with air regulations. EPA identified violations for not capping open-end lines and valves and for not maintaining calibration and monitoring records. EPA officials said the violations had no direct relationship to the Coalition's odor complaints. A Consent Decree was issued as a result of the violations and Metachem was fined \$349,500. EPA placed the facility on the High Priority Violators (HPV) list in April 1996 and removed the facility in July 1999 when Metachem paid the penalty and EPA determined the facility was in compliance.

In May 1996, the Coalition sent letters to the Region III Administrator listing the dates and times when she experienced odor problems. In response to the complaint, EPA obtained meteorological data from DNREC which included information on wind directions. The data was collected hourly at a weather station at Lums



Pond State Park located between the complainant's residence and the facility. EPA reviewed data for the dates and times of the complaints and found that the prevailing wind direction contradicted the Coalition's allegation that Metachem was responsible for the odors. Based on the locations of the complainant's residence and Metachem, odors caused by Metachem's emissions would have been most noticeable when the wind flowed from east to west. EPA's analysis showed that 84 percent of the time the wind direction did not flow east to west. From this information, EPA concluded it was highly unlikely that emissions from Metachem were responsible for the odor problems experienced on those dates.

One year later, the Coalition sent the Region III Administrator a second set of dates and times when she experienced odor problems. EPA performed the same analysis and the conclusion was the same. On each occasion, the Region III Administrator sent a letter to the complainant explaining the analysis performed by EPA and how the Region formed its conclusions. The complainant did not agree with EPA's findings and contended that a canal and man-made mountain near her residence shifted the prevailing wind pattern and the odors were from Metachem.

In the Spring of 1997, the Coalition sent letters to the EPA Administrator complaining of odors from Metachem and Region III's unresponsiveness to the Coalition's complaints. The Region III Administrator responded that EPA had attempted to verify the complaints on several occasions and his office worked extensively with DNREC to resolve this issue. On June 11, 1997, EPA inspectors visited the complainant's neighborhood in an attempt to confirm her odor

complaint. The inspectors did not detect any odors. The inspectors also interviewed neighbors who said that they were unaware of chronic odor problems in their neighborhood and they did not support the Spokesperson's allegations. To verify the neighbors' position on this issue, we considered performing follow up interviews in the neighborhood. The Spokesperson replied that she canvassed the neighborhood and that neighbors said they did not experience the same odor problems.

Besides EPA's air enforcement efforts, other EPA offices performed reviews involving Metachem. From 1997 to 1999, EPA's Criminal Investigation Division (CID) investigated three allegations of criminal activity at Metachem. Each time CID's investigations found no evidence of criminal activity at the facility. Additionally, in January 1998, EPA's Waste and Chemicals Management Division performed a joint Resource Conservation Recovery Act inspection with DNREC. The violations found were corrected by Metachem and had no direct relationship to the Coalition's odor complaint.

DNREC Efforts

DNREC stated that they have been receiving correspondence from the Coalition since 1986. They performed 26 inspections at Metachem from 1983 to 1998, which is an average of almost two inspections per year. In 1994, after receiving a complaint from a former employee alleging illegal activity at Metachem, investigators from the Division of Air and Waste Management performed an investigation. DNREC investigators interviewed employees, management and union representatives from Metachem and concluded the allegation was unfounded.

Additionally, a DNREC representative met with the Coalition's Spokesperson in June 1997. He stated that Metachem offered to have an independent company install an air monitor at her residence. The Spokesperson declined, claiming the company could falsify the results to favor Metachem. At the permission of the Governor's Office, the State of Delaware discontinued correspondence with the Coalition.

Metachem's Recycling Operation

In response to the Coalition's complaint, our Engineering and Science Staff (ESS) reviewed Metachem's Recycling Process. Of primary concern was a toxic chemical called dioxin which is a by-product of the process. ESS evaluated whether the process: 1) was properly permitted by DNREC, 2) was operating in compliance with applicable environmental regulations, and 3) posed a health threat to the surrounding community.

ESS determined the hydrogenation process was properly permitted by DNREC and that Metachem's normal plant operations do not pose an acute health risk to the surrounding local community under normal operating conditions.

However, ESS did recommend that DNREC enforce Condition 11 of Metachem's Construction/Operating permit APC-96/0809. This condition states the facility may operate with one distillation step if testing shows no detectable dioxin results. In November 1996, test results were above a non detect for dioxin, yet Metachem still continued to operate with one distillation step. DNREC should assess the need for a second distillation step and additional sampling as indicated by the permit.

Additional details of ESS's technical review of Metachem's chlorobenzene manufacturing process can be found in the attached document.

CONCLUSION

We found no evidence to support the Coalition's allegations that EPA has not addressed its concerns. The Region III Administrator has sent six letters in a two year period addressing and responding to the Coalition's environmental concerns. As a result of an EPA inspection, the facility was listed on the High Priority Violators (HPV) list in 1996 and paid penalties of \$349,500. EPA Region III sufficiently addressed the Coalition's complaints and, if anything, exceeded its responsibility. Moreover, DNREC was attentive to the Coalition's complaints, found several violations at Metachem and took adequate enforcement action against the facility. In any event, both State and EPA personnel, as well as the OIG Engineering and Science Staff, concluded that Metachem's violations did not cause odor problems at the complainant's residence.

Attachment

cc: Mr. Shawn Snyder
Governor Carper's Office
Mr. David Redlin
Senator Roth's Office
Ms. Tonya Baker
Senator Biden's Office
Nicholas A. DiPasquale
Secretary, DNREC
Mr. Frank Romanelli
President, Metachem Products, LLC
Mrs. Marilyn Harmer
Spokesperson, Coalition to Stop Metachem's Polluting