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Secretary

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September 24, 1994

File Ref: FID 246004330
Ozaukee County
HW/CA

Mr. Craig Bostwick
Corporate Manager, Environmental & Safety
Cook Composites & Polymers
919 E. 14th Avenue
North Kansas City, MO 64116

SUBJECT: Modification to the Plan of Operation approval to
conditionally approve the RFI workplan for
Cook Composites & Polymers (CCP) Saukville WI Facility
WID 980615439

Dear Mr. Bostwick:

The Department has reviewed the document entitled "Crosswalk between draft RFI workplan and WDNR guidance document for hazardous waste facility investigations," as well as the associated documents referenced in the crosswalk which together comprise the RFI workplan for CCP. Our review has resulted in a conditional plan modification to the plan of operation approval. We provided you with a draft version of this modification so that you would be able to provide comments to us. We received your comments on September 26, 1994 and have incorporated or considered each of them in finalizing this modification.

In your cover letter, you raised several issues pertaining to the newly promulgated NR 700 series, and in particular proposed chs. NR 720 and 722, Wis. Adm. Code. We have tried to answer your concerns as best we can at this time, although you should understand that chs. NR 720 and 722 have not yet been finalized and as a result we have not had experience interpreting these provisions. Consequently, we cannot be certain how the process will ultimately be implemented. We have addressed your questions as follows:

1. Soil cleanup standards

You are correct in assuming that facilities may establish soil cleanup standards as performance standards or as residual contaminant levels specific to a site (i.e. numerical standards).

2. Risk assessment

Although it is premature to speculate on how the performance standard will be judged to be protective of human health and the environment, it is quite possible that a risk assessment would be an appropriate way to determine this. We will give you more guidance on this issue as we move through the cleanup process.

3. Remedy evaluation and selection process

The manner in which the rules have developed has resulted in ch. NR 722, Wis. Adm. Code, not being directly applicable to hazardous waste facilities, except in those instances where references are made to ch. NR 722 in ch. NR 720, Wis. Adm. Code. Technically, while the "Hazardous Waste Facility Investigation Results and Corrective Measures Study - Task II" (Task II) document is guidance, the Department is under an obligation as part of our Memorandum of Agreement with EPA to require its use. Therefore, we concur with your proposal to follow the Task II guidance as the primary process. Since both Task II and ch. NR 722, Wis. Adm. Code are sufficiently broad, we feel they should be generally consistent. Please let us know of any major inconsistencies you find between the Task II guidance and proposed ch. NR 722, Wis. Adm. Code.

4. Site closure

We intend to use ch. NR 726, Wis. Adm. Code, as guidance when the time comes to consider site closure at CCP. In order for closure to occur, the groundwater at the site will have to meet the ch. NR 140, Wis. Adm. Code, Preventive Action Limits (PALs). A risk assessment may be appropriate to determine if any soil contamination that remains after a performance standard has been reached will be protective of human health and the environment for certain exposure pathways, but a comprehensive analysis will be necessary to show that the levels remaining in the soil will not cause any ch. NR 140, Wis. Adm. Code, PAL exceedances.

The following CCP comments on the Findings of Fact and Conditions were altered or were not incorporated into the final plan modification for the reasons given below.

Finding of Fact 4:

Finding of Fact 4 was not altered. This finding was taken from the 1987 Administrative Order on Consent. The level of groundwater contamination found in municipal well #2 in 1979 was not readily available, but we may be able to supply you with the exact levels at a later date.

Condition 5:

The former condition 5 required that all soil samples submitted to a laboratory for VOC analyses be preserved in methanol immediately after collection. This has been removed as a condition, however the Department still strongly recommends that all soil samples be preserved in methanol after collection. This is based on the technical literature and Department research which has shown significant losses of VOCs of up to 99% from soil samples that are preserved only by cooling to 4°C. Research has also shown reduction of VOC losses from soil samples by preserving the samples in methanol. We believe that no matter what the levels of VOC contamination in soil samples, methanol preservation will still give a much more accurate reading of those levels than preservation by cooling to 4°C. Since CCP will likely be doing soil cleanup, we believe it is important to have as accurate data as possible.

A new condition 5 has been added to the plan modification that requires CCP to use a laboratory that has been certified by the Department under ch. NR 149, Wis. Adm. Code, for all chemical analyses.

Mr. Craig Bostwick

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If you have any questions, please call Jill Fermanich at (608) 266-5741.

Sincerely,



Barbara J. Zellmer, Chief
Hazardous Waste Management Section
Bureau of Solid & Hazardous Waste Management

BJZ:jjf

enclosure

cc: Mark Gordon - SW/3
Tim Mulholland/Jill Fermanich - SW/3
Walt Ebersohl/Pat Brady - SED
Laura Lodisio/Robert Smith - U.S. EPA Region 5, HRE/8J
Jean Gromnicki - U.S. EPA Region 5, HRM/7J
Chuck Slaustas - U.S. EPA Region 5, HRP/8J
Jim Rickun/Stacy McAnulty - RMT, Inc., Madison
Jeffery Knight - Village of Saukville, WI president

BEFORE THE
STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

MODIFICATION
TO THE
PLAN OF OPERATION APPROVAL

COOK COMPOSITES AND POLYMERS COMPANY
HAZARDOUS WASTE INCINERATOR
FID 246004430
U.S. EPA I.D. NO.: WID980615439

FINDINGS OF FACT

General Information

Owner/Operator: Cook Composites and Polymers Company
919 E. 14th Avenue
North Kansas City, MO 64116
(816) 391-6000

Contact: Mr. Craig Bostwick
(816) 391-6025

Location: The former incinerator, storage area and existing incinerator are at Cook Composites and Polymers' Saukville, Wisconsin facility. Church Street bounds the site to the north, South Main Street to the east, West Linden Street to the south, and the Chicago Milwaukee St. Paul Pacific Railroad to the west. Two offsite areas are also included in the RFI investigation. These are the churchyard that lies to the north and east of CCP's facility property boundaries and south of Church Street; and the Logeman property that lies to the south and west of CCP's facility property boundaries.

Consultant: RMT, Inc.
744 Heartland Trail
Madison, WI 53708-8923
(608)831-4444
James S. Rickun, Project Manager

The Department finds that:

1. Cook Composites and Polymers Company purchased Freeman Chemical Corporation on April 2, 1990 from its former parent company, Georgia Gulf Corporation. On December 31, 1990, Freeman Chemical Corporation and Cook Composites and Polymers merged and Freeman Chemical Corporation was liquidated. All references to Cook Composites and Polymers in this

document refer to the same facility, either under the present or former names.

2. Cook Composites and Polymers Company (CCP) owns and operates a synthetic resin manufacturing facility at 340 Railroad Street, Saukville, Ozaukee County, Wisconsin. The four waste streams that may be generated at the facility consist of the following:
 - a. Reaction water a.k.a. Acid Water (D001): Reaction water may include toluene, ethylbenzene, phenol and other organics.
 - b. Solvents (F003 and D001): Rinse solvent consisting of xylene and other hydrocarbons, and process solvents, including xylene and toluene.
 - c. Clean Up Wastes (U-listed wastes).
 - d. Waste Resins (D001): Test samples and rejected resins.

These waste streams are collected and properly disposed of by CCP.

3. Since the facility began operations in 1948, releases of hazardous wastes or hazardous constituents, including raw materials, resins and by-products, have occurred. The potential major contributing sources of volatile organic compounds (VOCs) to groundwater consist of the following five areas of concern.

* Area 1 - Former Urethane Laboratory/Hazardous Waste Incinerator

Reaction water burned at former incinerator from 1968 to 1989. As a result of laboratory disposal of spent solvents (beginning in the 1950's), incinerator operations and spills, elevated levels of benzene, toluene, ethylbenzene and xylene (BTEX) are present in soils in this area.

* Area 2 - Former Dry Well

Used from approximately 1952 through 1968 to dispose of reaction water as approved by the Wisconsin Division of Water Pollution Control (WDWPC, 1952). The well consisted of a pit with sand and gravel base. The well was remediated in 1986 by removing the lid and concrete blocks that comprised the well and pumping the remaining fluid and excavating the remaining sludge in the well. The excavation was then filled with clean road bond size gravel.

* Area 3 - Former Tank Storage Area

Originally supported on a stone base bermed with earth. Although the tanks did not leak, spills may have occurred during tank filling. Currently, this area is occupied both by new tank and storage containment structures, and by the hazardous waste incinerator/small storage facility.

* Area 4 - Logeman Property (off-site)

An air curtain incinerator, consisting of an 8 to 10 foot deep concrete pit, was formerly operated in this area. This pit is presently covered by a wooden platform. The incinerator was used in the past primarily to burn diatomaceous earth. Reaction water was used occasionally to quench the fires, and cracks in the concrete pit may have allowed releases to the ground. An ash pile, covered with 60 ft³ of soil in 1972, is also located on the property. The ash was produced during operation of the air curtain incinerator.

* Area 5 - Churchyard (off-site)

This area may have been affected by the past disposal practices at Area 1. Past overland flow of spent solvents may have migrated onto a small section of the churchyard. Freeman (now CCP) addressed past tanker spills (two occurrences in the 1970's) that resulted in overland flow from the facility to the adjacent churchyard by removing sod and excavating soil.

4. In 1979, trace organic chemicals and an "acid water" odor were identified in the municipal water supply in Saukville. City well #2, located approximately 600 feet northwest of the facility, was found to be contaminated and was removed from municipal use. Groundwater samples from this well contained detectable levels of benzene, toluene, trichloroethylene and xylene. CCP has continued to use city well #2 as a source of noncontact cooling water. This water is eventually discharged to the Milwaukee River under a WPDES permit.
5. Several groundwater monitoring wells were installed at CCP during 1983 to 1986. Groundwater samples taken from these wells document that Preventive Action Limits (PALs) and Enforcement Standards (ESs) for substances of health and welfare concern have been attained or exceeded at the point of standards application in both the glacial deposits and bedrock below the facility.
6. Certain corrective measures have been undertaken as interim measures at CCP. The interim measures began in May, 1986 under WDNR approval and include: three Ranney collection systems and seven dewatering wells in the glacial deposits; four six-inch diameter withdrawal wells installed in the shallow dolomite; and one deep dolomite withdrawal well. In addition, the majority of the site was paved with concrete, and a surface runoff collection system was installed.
7. On October 21, 1987, a three party Administrative Order on Consent was signed by representatives of Freeman, the WDNR and U.S. EPA Region 5. This order required continuing corrective measures to prevent or reduce the release or migration of hazardous waste or hazardous constituents to the groundwater, surface water, and soil in and around Freeman's facility.

8. The Scope of Work for investigations at CCP contained six Tasks: Task 1 (Description of Past and Current Conditions); Task 2 (Schedules); Task 3 (Support Plans); Task 4 (Work to be Performed); Task 5 (Evaluation of Groundwater Collection System); and Task 6 (Reports). Task 1 was approved in 1986, and Task 3 is currently under review by the EPA and WDNR. Task 5 is on-going with submittal to the USEPA and WDNR of quarterly groundwater monitoring results and the annual groundwater evaluation report.
9. The Department issued a conditional Feasibility and Plan of Operation approval for the existing hazardous waste incinerator at CCP on February 9, 1988. On August 22, 1994, the Department modified this plan of operation approval to incorporate corrective action provisions for the entire facility.
10. Glacial till, glaciolacustrine, and glaciofluvial deposits overlie dolomite bedrock at Saukville. Unconsolidated deposits range from approximately 10 to 25 feet in thickness. In general, sand, silt, and clay are present near the land surface and overlie a laterally continuous layer of lake sediments (varved silts and clays). Dense glacial till exists beneath the lacustrine deposits in the north and east portions of the property. Beneath the till and lacustrine deposits is a thin layer of glacial outwash over the bedrock surface.
11. Soil borings and seismic refraction surveys show the bedrock surface at the site to be pinnacled with occasional deep, narrow, closed depressions (possibly sink holes). A deep depression in the bedrock, filled with more than 150 feet of clay, silt and sand, is in the northeast corner of CCP's facility. At four locations in the northeast corner of the CCP facility, the bedrock (Niagara dolomite) was cored to a depth of 65 to 85 feet. The cores show that the dolomite is severely solutioned and highly fractured in that area.
12. Available information concerning the site indicates a complex natural hydrogeologic setting that is also influenced by pumping activities conducted at the site as interim corrective measures and surrounding municipal water supply wells.
13. This modification to the Plan of Operation constitutes a minor modification according to s. NR 680.07(3), Wis. Adm. Code.

CONCLUSIONS OF LAW

1. The Department has authority pursuant to 144.735 Wis. Stats. and s. NR 635.17, Wis. Adm. Code, to require corrective action to address releases from solid waste management units.
2. The Department has authority under s. 144.44(3), Stats. to modify a plan of operation approval with special conditions if the conditions are needed to ensure compliance with chs. NR 600 through 685, Wis. Adm. Code.

3. The Department has the authority to require a response under s. 160.23, Wis. Stats., and s. NR 140.24, Wis. Adm. Code, if a preventive action limit for a substance of health and welfare concern has been attained or exceeded at a point of standards application.
4. The Department has the authority to require a response under s. 160.25, Wis. Stats., and s. NR 140.26, Wis. Adm. Code, if an enforcement standard for a substance of health or welfare concern has been attained or exceeded at a point of standards application.
5. The Department has authority to approve or modify a feasibility and plan of operation pursuant to ss. NR 680.06 and NR 680.07, Wis. Adm. Code.

DETERMINATION

Based on the Findings of Fact and Conclusions of Law, the Department determines that CCP's Plan of Operation Approval is hereby modified, subject to compliance with chs. 600 through 685, Wis. Adm. Code and the following conditions. The Department retains jurisdiction either to require the submittal of additional information or to further modify this determination at any time.

CONDITIONS

1. Within 90 days from the date of completing the investigation, CCP shall submit the results of the RFI investigation, including all outstanding information identified in the February 15, 1994 crosswalk document. CCP shall submit a corrective measures study (CMS) to the Department within 120 days of the Department's review of the results of the RFI investigation. The CMS shall be completed according to the format(s) included in the attached "Hazardous Waste Facility Investigations Results and Corrective Measures Study - Task II."
2. During the CMS phase, CCP shall develop clean-up standards for soil at the facility in accordance with proposed s. NR 720.19, Wis. Adm. Code, and restore soil quality at the site to the extent practicable and that is protective of public health, safety, welfare and the environment. The soil investigation should be completed and then s. NR 720.19, Wis. Adm. Code, followed to develop soil cleanup standards. Although a risk assessment similar to the one proposed in the RFI workplan might be acceptable under the proposed s. NR 720.19, Wis. Adm. Code, it is premature at this point and should not be done until s. NR 720.19, Wis. Adm. Code, has been reviewed.
3. CCP shall choose one of the following two options regarding the number of soil borings to be advanced: 1) Install the proposed number of borings at the specified locations. If contamination is discovered at those points, then CCP must perform additional borings to adequately determine the extent of contamination. 2) Place a minimum of three

borings at each of areas 2 and 3. Additional borings may still be needed later if this does not adequately define the extent of contamination at those locations.

At the churchyard, the soil sampling scheme shall be as follows:

- 1) area of potential overland flow of spilled solvents from area 1
 - * 5 borings installed to bedrock, sampled continuously at 2-foot intervals.
 - * Appendix IX VOCs and SVOCs analyzed on samples collected from 2-4 feet at each boring. Remaining soil samples analyzed for BTEX parameters using SW 846 method 8020.
- 2) ball field
 - * five borings sampled at the surface to 2 foot and 4-6 foot intervals.
 - * all soil samples analyzed for BTEX parameters using SW 846 method 8020.
4. All investigative wastes, including drill cuttings, excavated soil, decontamination water, surge and wash waters, etc. from all borehole and groundwater monitoring well construction and development, sampling activities and remedial actions, etc. shall be collected, containerized and properly managed as either a solid waste or hazardous waste. CCP is responsible for making a hazardous waste determination on the above material in accordance with ss. NR 610.05 or NR 615.06, Wis. Adm. Code.
5. For all chemical analyses of soil and groundwater, CCP shall use a laboratory that is certified by the Department according to the procedures outlined in ch. NR 149, Wis. Adm. Code.
6. CCP shall notify the Department at least two weeks in advance of the anticipated date the aquifer testing is to begin. At that time, a proposed schedule for the testing shall be provided to the Department.
7. Well W-8A (replacement for W-8) and any future monitoring wells that may be installed at the facility shall be installed in accordance with ch. NR 141, Wis. Adm. Code. In addition, the following forms are required to be used where appropriate and submitted to the Department:
 - Monitoring well construction form 4400-113A
 - Monitoring well development form 4400-113B
 - Well/drilling/borehole abandonment form 3300-5b
 - Soil boring log form 4400-122
8. Any Appendix IX detects that are detected during the one round of sampling proposed at wells W-06A, W-44, W-47, W-21A, W-24A, W-28, W-29 and W-30 shall be added to the next quarterly sampling round for the

well(s) in which the parameter was detected. If the Appendix IX parameter is detected a second time, that parameters shall be added to the routine monitoring plan for those wells in which they were detected.

9. A hydrogeologist or other qualified person, as defined in s.NR 600.03(98), Wis. Adm. Code, shall observe and direct the drilling and construction of all monitoring wells and soil borings and shall supervise the operation of the aquifer tests. In addition, all reports shall be certified by a registered professional engineer and a hydrogeologist.

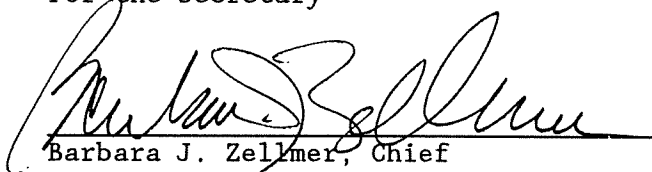
NOTIFICATION OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to sections 227.52 and 227.53, Stats., you have 30 days after the decision is mailed or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review shall name the Department of Natural Resources as the respondent.

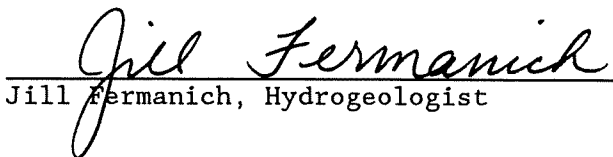
This notice is provided pursuant to section 227.48(2), Stats.

Dated: SEP 29 1994

DEPARTMENT OF NATURAL RESOURCES
For the Secretary



Barbara J. Zellmer, Chief
Hazardous Waste Management Section
Bureau of Solid & Hazardous Waste Management



Jill Fermanich, Hydrogeologist