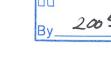


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June 21, 2005

Mr. John Feeney Wisconsin Department of Natural Resources P.O. Box 408 Plymouth, WI 53073-0408

**Subject: Proposed Modified Groundwater Monitoring Plan** 

Cook Composites and Polymers, Co.

340 Railroad Street Saukville, Wisconsin FID #: 246004330

Dear John:

Based on historical groundwater monitoring data, changes in the monitoring network over time and in preparation for a review and revision of the Corrective Measures Study (CMS), Cook Composites and Polymers Co. (CCP) is providing this proposed Modified Groundwater Monitoring Plan (MGMP) for the CCP Saukville facility for your review and approval.

## **Background**

Cook Composites and Polymers Co. (CCP) operates a polyester, acrylic, and alkyd resin manufacturing plant in Saukville, Wisconsin (Figure 1). Prior to 1991, the plant was owned and operated by Freeman Chemical Corporation (Freeman). The facility was initially operated as a cannery until 1949 when Freeman installed resin manufacturing equipment. The facility has manufactured alkyd, polyester and urethane synthetic resins since 1949.

From 1952 to 1968, process waste water known as reaction water was disposed in a dry well formerly located on the western edge of the property, under the approval of the Wisconsin Division of Water Pollution Control. The dry well method of disposal for the reaction water was replaced with an on-site hazardous waste incinerator in 1968.

Three (3) areas of concern (AOCs) were identified on the site during the Facility Investigation. The 3 AOCs are as follows:

AOC 1 - Former Urethane Laboratory/Former Liquids Incinerator Area

The former liquids incinerator was used to dispose reaction water from 1968 to 1989. Area 1 is located on the northeast portion of the facility

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in the vicinity of the current solid waste incinerator and soil vapor extraction (SVE) system.

## AOC 2 - Former Dry Well

The former dry well was used from approximately 1952 through 1968 to dispose of reaction water as approved by the Wisconsin Division of Water Pollution Control. Area 2 is located on the west-central portion of the property near W-06A.

# AOC 3 – Former Tank Farm Storage Area

A tank farm consisting of an earthen berm utilized for the storage of raw materials and finished product formerly occupied this area. Area 3 is located near the center of the property to the east and south of the existing non-hazardous liquid waste incinerator.

In compliance with the 1987 Corrective Action Order on Consent (Docket #V-W-88-R-002), October 19, 1987, 3008(h) order for RCRA, CCP is required to perform quarterly groundwater monitoring for specific wells.

Since 1987, quarterly groundwater sampling has occurred on the following schedule:

- receptor monitoring points have been sampled on a quarterly basis;
- perimeter monitoring points have been sampled on a semi-annual basis; and,
- remediation progress points have been sampled on an annual basis.

### **Monitoring Network Changes**

Since the groundwater monitoring program commenced in 1987, changes to the monitoring system have occurred due to remedial construction projects, non-remedial construction projects and acquisition and subsequent abandonment of the Village of Saukville Municipal Well No. 2 by CCP.

In 1996, remedial construction initiated by Georgia Gulf Corporation led to the abandonment of glacial drift remediation progress monitoring well W-37 located in the Churchyard to the east of the facility. The extension of Ranney Collector RC-1 rendered monitoring well W-37 non-essential and following a petition to USEPA for permission to abandon monitoring well W-37, the well was abandoned and removed from the monitoring network. Monitoring well W-37 was previously sampled during the annual sampling event performed in July of each year.

In 1997, construction of the new Oscar Grady Library required the abandonment of shallow dolomite perimeter monitoring well W-25. Following a petition to USEPA for permission to abandon monitoring well W-25, the well was abandoned and removed from the monitoring plan. It was determined that sufficient monitoring points were in place between the CCP facility and the W-25 location. Therefore, there was no need to reinstall monitoring well W-25. Monitoring well W-25 was previously sampled semi-annually during the April and October sampling events each year.



Cook Composites and Polymers, Co. Saukville, Wisconsin

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In 2004, the Village of Saukville transferred the ownership of Municipal Well No. 2 to CCP. Pursuant to the acquisition agreement executed between the Village and CCP, CCP was responsible for the abandonment of Municipal Well No. 2. Municipal Well No. 2 had been disconnected from the Village water distribution system since 1979, and used primarily as a backup non-contact cooling water supply for CCP. In 1986, the installation of onsite deep dolomite well W-30 eliminated the need for Village supplied non-contact cooling water. Therefore, Municipal Well No. 2 was abandoned and removed from the monitoring program. Municipal Well No. 2 was previously sampled on an annual basis during the July sampling event each year.

# <u>Justification for Groundwater Monitoring Plan Changes</u>

CCP has conducted quarterly groundwater sampling at the Saukville facility since 1992. Total VOC trend data and individual contaminant trend data has been evaluated on an annual basis as part of the required Annual Groundwater Monitoring Report. Based on a review of the contaminant trends, the concentrations of contaminants detected in the various monitoring points have not changed significantly in the past 10 years of monitoring. As part of the RCRA Cleanup Reforms of 1999 and 2001, CCP is currently evaluating innovative remedial methods in an effort to accelerate the remediation of the impacts at the Saukville facility.

The existing groundwater extraction system has effectively contained the plume of contaminants on the site, and as long as the groundwater extraction system continues to operate, the potential for impacts migrating off site are minimal. CCP intends to operate the existing groundwater extraction system until sampling results indicate that site migration of contamination is no longer possible.

### **Proposed Revised Groundwater Monitoring Plan**

In an effort to allocate resources to evaluate and pilot test innovative remedial solutions, we propose the following changes to the groundwater monitoring plan at the CCP Saukville facility.

#### **Current Plan**

The current plan includes collecting samples on a quarterly basis in January (Winter), April (Spring), July (Summer) and October (Fall). Different monitoring points are sampled depending on the quarterly event. Currently, the groundwater monitoring plan requires the following samples to be collected:

- receptor monitoring points (Municipal Wells, the Village of Saukville publicly-owned treatment works (POTW) and the onsite Ranney Collectors are sampled each quarter;
- perimeter progress points (wells outside of the plume) are sampled semi-annually in April and October; and,
- remediation progress points (wells located within the plume) are sampled annually in July.



Cook Composites and Polymers, Co. Saukville, Wisconsin

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#### **Revised Plan**

## **Existing Monitoring Points**

Our proposed MGMP involves combining sampling events to create two semi-annual sampling events that continue to monitor all of the perimeter monitoring points and remediation progress points at the same frequency as they are currently sampled. The change in the groundwater monitoring plan would be most evident in the change in monitoring of the receptor monitoring points from a quarterly basis to a semi-annual basis. With the exception of Municipal Well No. 2, none of the remaining municipal wells have historically shown any impacts during quarterly sampling.

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With the recent abandonment of Municipal Well No. 2, there is no longer an exposure pathway through the Village water distribution system. Therefore, semi-annual sampling of the receptor monitoring points would sufficiently monitor potential exposures from the remaining municipal wells. However, during CCP's May 2005 Community Advisory Meeting, the Village of Saukville requested that municipal well No. 1 (MW-1) continue to be sampled on a quarterly basis, and CCP agreed to this request.

Based on the above, we propose the MGMP to consist of the following:

- receptor monitoring points will be sampled on a semi-annual basis in April and October, with the exception of MW-1 which will be sampled on a quarterly basis;
- perimeter progress points will be sampled on a semi-annual basis in April and October, as is the case in the current groundwater monitoring plan; and,
- remediation progress points will be sampled on an annual basis in October, thereby shifting the monitoring period for remediation progress points from the current July to October.

This proposed MGMP would eliminate the sampling events in January and July, with the exception of sampling MW-1 at the request of the Village of Saukville. It should be noted that the only material changes being made to the groundwater monitoring plan would be the reduction in frequency of sampling the remaining receptor monitoring points (MW-3, MW-4, the POTW monitoring points and the onsite Ranney Collectors) from quarterly to semi-annually.

#### Proposed New Monitoring Points

Based on the evaluation of the individual contaminant concentration data as presented in the 2005 Annual Groundwater Monitoring Report, it is our opinion that additional monitoring points would better define the extent of the groundwater impacts on the north and south boundaries of the plumes. We propose to add monitoring points, consisting of both existing monitoring wells and newly installed monitoring wells, to the monitoring network as part of the MGMP to better define the nature and extent of the plumes. Details regarding the proposed additions to the monitoring network are provided below.



Cook Composites and Polymers, Co. Saukville, Wisconsin

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#### **Existing Wells**

We propose to add existing glacial drift monitoring well W-16A and existing shallow dolomite piezometer W-40, both located in the Churchyard to the north and east of the CCP facility, to the revised monitoring network. The locations of these two existing wells are shown on the attached *Figure 1 – Proposed Additions to Groundwater Monitoring Network*. Currently, both W-16A and W-40 are monitored for groundwater elevation on a quarterly basis. However, neither well is currently sampled in the current groundwater monitoring plan.

We propose to sample both perimeter monitoring points on a semi-annual basis for VOCs as part of the MGMP. Purging and sampling procedures will be consistent with the rest of the monitoring network. Field parameters including: pH, dissolved oxygen, temperature, specific conductivity and turbidity will also be measured at the time of sampling.

## **Proposed New Wells**

In order to better define the nature and extent of contamination along the southern edge of the groundwater plumes, we propose to install two new nested well pairs. The two nested well pairs will be located along the east fenceline, south of the Main Street gate and along the south fenceline midway between the existing monitoring wells W-14B and W-23 locations. The locations of the proposed new wells are shown on the attached *Figure 1 – Proposed Additions to Groundwater Monitoring Network*.

Each of the nested well pairs will consist of a glacial drift monitoring well and a shallow dolomite piezometer. Both sets of wells will be constructed of SCH 40 PVC with an above ground protector pipe. The groundwater monitoring wells will be installed with a ten foot section of screen that intersects the water table. The piezometers will be constructed with a five foot section of screen set approximately 5 to 10 feet below the top of the shallow dolomite/glacial drift contact. All newly installed wells will be cased to the top of the screened interval.

We propose to add the four new wells to the monitoring network and sample on a semiannual basis for VOCs. Purging and sampling procedures will be the same as the rest of the monitoring network. Field parameters including: pH, dissolved oxygen, temperature, specific conductivity and turbidity will also be measured at the time of sampling.

### **Proposed Parameter Changes**

The existing GWMP requires that remediation progress points W-19A, W-38, W-41 and W-42 be analyzed for VOCs by EPA Method 8021. The existing GWMP requires that only benzene, toluene, ethylbenzene, total xylenes, 1,2-dichlorobenzene, 1,3-dichlorobenzene and 1,4-dichlorobenzene be reported. For the past several years, the laboratory has been analyzing these samples using EPA Method 8260 but limiting the report to the constituents listed above.

The receptor monitoring points listed above are located within areas of potential chlorinated VOC impacts migrating from the adjacent Northern Signal (current JT Roofing) site. We propose to amend the GWMP to analyze the samples collected from W-19A, W-38, W-41 and W-42 using EPA Method 8260 and reporting the entire 8260 constituent list.



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The proposed MGMP with all of the changes described in this letter is summarized on the attached *Table 1 – Proposed Modified Groundwater Monitoring Plan Summary*.

## Closing

We trust that the information provided is sufficient for your review and approval of the Proposed Modified groundwater Monitoring Plan for the CCP facility located in Saukville, Wisconsin. With your approval, we propose to commence the revised groundwater monitoring schedule beginning with the July 2005 Summer sampling event by limiting the sampling in July to Municipal Well No. 1. We plan the installation of the proposed nested well pairs for the Summer of 2005 so that sampling of these monitoring points can commence during the October 2005 Fall sampling event.

If you have any questions regarding the proposed revisions to the groundwater monitoring plan, please feel free to contact me at 414-225-9604 or contact Michael Gromacki at CCP at 816-391-6011.

Sincerely,

**ELM Consulting, LLC** 

Robert A. Cigale, P.G., CHMM Senior Consultant

cc: Michael Gromacki – CCP, NKC
Mark Gordon – WDNR
Lynn Persson – WDNR
Dawn Wagner – Village of Saukville
Gerry Dickmann – Village of Saukville



Table 1

Proposed Modified Groundwater Monitoring Plan Summary
Cook Composites and Polymers, Co.
Saukville, Wisconsin

	Sampling		Samplin	Sampling Event			Dupli	icates
Monitoring Objective	Point	January	April	July	October	Parameters	Blind	MS/MSD
Receptor Monitoring Points	MW-1	Х	X	. X	X	8260		
	MW-3		Χ		X	8260		Х
	MW-4		Χ		Х	8260	Х	
	RC-1		Х		X	8021		
	RC-2		Χ		Х	8021		
	RC-3		Χ		Х	8021		
	POTW-I		Χ		Х	8260		
	POTW-E		Х		Х	8260		
	POTW-S		Х		Х	8260		
Perimeter Monitoring Points	W-01A		Х		Х	8260		
	W-03A		Χ		Х	8260		
	W-03B		Χ		Х	8260	Х	
	W-04A		Х		Х	8260		
	W-07		Х		Х	8260		
	W-08R		Χ		Х	8260		
	W-16A		Х		Х	8260		
	W-20		Χ		Х	8260		
	W-22		Х		Х	8260		
	W-23		Х		Х	8260	Х	
	W-27		Χ		Х	8260		
	W-40		Χ		Х	8260		
	W-49		Х		Х	8260		
	W-50		Х		Х	8260		
	W-51		Х		Х	8260		
	W-52		X		Х	8260		
Remediation Progress Point	W-06A				Х	Appendix IX 8260, Appendix IX 8270, 7060, 6010		
	W-19A				Х	8260	Х	
	W-21A				Х	Appendix IX 8260, Appendix IX 8270, 7060, 6010		
	W-24A				X	Appendix IX 8260, Appendix IX 8270, 7060, 6010		
	W-28				Х	Appendix IX 8260, Appendix IX 8270, 7060, 6010		
	W-29				Х	Appendix IX 8260, Appendix IX 8270, 7060, 6010		
	W-30				Х	Appendix IX 8260, Appendix IX 8270, 7060, 6010	Х	
	W-38				X	8260		
	W-41				Х	8260		Х
	W-42				Х	8260		
	W-43				Х	Appendix IX 8260, Appendix IX 8270, 7060, 6010		
	W-47				Х	Appendix IX 8260, Appendix IX 8270, 7060, 6010, 8081	X (8081)	
NPDES Monitoring Point	Outfall 001				Х	8260		

Red text indicates existing well added to monitoring network.

Green text indicates newly installed well added to monitoring network.

