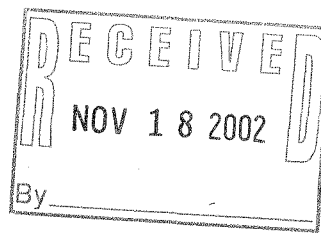




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November 8, 2002

Mr. John Feeney  
Wisconsin Department of Natural Resources  
Plymouth Service Center  
115 Pilgrim Road  
Plymouth, WI 53073-0408

Subject: Response to Conditional Remedial Action Plan Approval  
West Dock and Recycling Dock Areas  
Tecumseh Products Company  
Grafton, Wisconsin (WDNR FID #246009170, BRRTS #02-46-000751)

Dear Mr. Feeney:

This letter is in response to the Wisconsin Department of Natural Resource's (WDNR's) Conditional Remedial Action Plan Approval letter dated June 6, 2002. RMT, Inc. (RMT), on behalf of Tecumseh Products Company (Tecumseh), is submitting this response. The information summarized below includes the WDNR's individual approval conditions, followed by Tecumseh's response.

#### WDNR Comment

**Develop a contingency plan for quick groundwater extraction and hydraulic control if the concentrations of biodegradation daughter products below and downgradient from the treatment areas accumulate and do not degrade. Submit that to me before you start the systems.**

#### Response

It is possible that, during enhanced reductive dechlorination in the West Dock and Recycling Dock source areas, the concentrations of biodegradation daughter products such as cis-1,2 dichloroethene (cis-DCE) or vinyl chloride (VC) could accumulate and not degrade. This phenomenon has been found at some sites, as is documented in the literature. It is not fully understood why this happens at some sites, but it is likely due to varying geochemical and microbiological conditions in the subsurface.

At the City of Sun Prairie site, RMT saw an initial accumulation of cis-DCE in the source area, but it was subsequently degraded. VC was never observed. In the case of the Sun Prairie site, the plume surrounding the source area was aerobic. It is likely that VC was degraded aerobically downgradient from the anaerobic treatment zone, and therefore never accumulated.

The contingency plan for the Tecumseh site, should daughter products accumulate, will be based on site conditions monitored during the enhanced remediation work. Therefore, it is difficult to develop a detailed *a priori* contingency plan. Performance monitoring and

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reporting is already included in the remediation plan. Once it is clear that degradation of daughter products is sufficient to achieve site goals, we will notify the WDNR and assess remediation alternatives. Several options could be used to remedy the situation, as follows:

- Revised anaerobic processes
- Chemical oxidation downgradient of the source areas
- Enhanced aerobic bioremediation downgradient of the source areas
- Installation of groundwater recovery wells for hydraulic containment downgradient of the source areas

These options will be evaluated against soil and groundwater conditions, should cis-DCE or VC be found to accumulate. A plan for additional action consistent with future conditions will be submitted to the WDNR for approval within 45 days of the initial notification.

#### **WDNR Comment**

**Submit a brief yearly system performance/evaluation report. After five years of system operation or 50 percent of the groundwater contaminant concentration is reached in the source area a performance evaluation of the remedial system must be made to determine the appropriateness of shutting down the system, and if natural attenuation is appropriate at that time.**

#### *Response*

An annual system performance/evaluation report will be submitted to the WDNR for the remediation systems installed at the West Dock and Recycling Docks Areas. This report will include a summary of the injections performed each year, a presentation of the monitoring data collected, an assessment of daughter product accumulation, and an evaluation of the system performance relative to the treatment performance goals.

After 5 years of operation, or a 50 percent reduction in groundwater contaminant concentrations in the source area, an evaluation will be made regarding the appropriateness of shutting down the remediation systems. At that time, site data will be evaluated to determine if natural attenuation is the appropriate remedial action for the site.

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Please contact me, at (608) 662-5108, if you have any questions regarding these responses to your approval letter.

Sincerely,

RMT, Inc.

A handwritten signature in black ink, appearing to read "Bernd W. Rehm". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Bernd W. Rehm, P.G.  
Project Manager

cc: Tecumseh Products Company – Bharat Shah, Kerry DeKeyser, Glenn Elmer  
RMT – Randi Williams, Stacey Koch  
Wisconsin Department of Natural Resources - Corey Heckel