

## State of Wisconsin



## **DEPARTMENT OF NATURAL RESOURCES**

Carroll D. Besadny Secretary

BOX 7921 MADISON, WISCONSIN 53707

File Ref:

4430

August 21, 1987

Mr. Russel Cerk Vice President, Manufacturing Freeman Chemical Corporation P.O. Box 247 Port Washington, WI 53074 D.N.R. SED Hqtrs.! Milwaukee, WI

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Dear Mr. Cerk:

Thank you for taking your time to show us around your facility. The August 11, 1987 tour and meeting were very helpful in bringing us up to date on the remedial actions at Freeman.

During our tour, I noticed some water ponding on the soil reclamation area and the stockpiled soil partially covered with plastic. Rich O'Hara's August 8, 1986 and September 2, 1986 letters to you refer to the recycling requirements of s. NR181.19(3)(a)-(h). In particular, the letter recommends that reclamation work be conducted on a prepared base to prevent the leaching of VOCs and that the soils being treated or awaiting treatment are covered during rainstorms. Please describe the steps taken to prepare the base beneath the soils reclamation area and storage area. The partial coverage of the stockpiled soil, the presence of grass on the stockpiled area and the evidence of ponding in the reclamation area lead me to believe that the area is not properly protected. Please describe what steps are taken to prevent rainfall from entering the area.

The Village of Saukville and the Department are interested in the continued extraction of deep dolomite contamination. Please prepare a plan to initiate pumping of MW-1 and/or MW-2 in the event that well 30 is shut down for more than 2 days. Should such a shut down occur, please also notify the Village and the Department.

At the meeting, Roger Hatcher made the statement that sufficient information exists to demonstate that MW-3 could not be affected by Freeman. Please send me this information or direct me to the reports where this information exists.

Hatcher Inc. has proposed using PLASM in assisting with the data management task of the order. Please provide us with documentation on how this model is applied to Saukville. In this report, include calibration results, boundry conditions, model parameters, a technical justification for these parameters and a qualitative estimate of the uncertainty of the parameters (e.g., The Milwaukee River recharge factor was chosen as  $0.01~\text{gpd/ft}^2$  based on glacial deposit characterists from piezometer nest 3. Given the uncertainty of the recharge, it could range from  $0.001~\text{to}~0.1~\text{gpd/ft}^2$ .). Also please include a diskette (3 1/2 or 5 1/4 inch) containing the calibrated data set.

One of the objectives of the meeting was to map out future field work in further calibrating and verifying the model. In reviewing my notes, I do not

have a good understanding of what additional work will be done. The August 5, 1987 letter from Roger to myself mentions pump tests of well 30, MW-1 and MW-2. Please describe what additional pump tests will be undertaken.

A model is only as good as the data its based on. Many piezometers exist near Freeman. The model should be able to provide an adequate representation of the aquifer near the Freeman property. However, the model's objective is to encompass Saukville's water supply wells. The presence of only a few piezometers off the Freeman property limits the effectiveness of model calibration. Modelling a fractured aquifer influenced by a river and wells is a difficult problem and the subject of much research. It does not appear that the model will be able to adequately address the interrelation of the wells and the river without the use of additional piezometers off the Freeman property. Describe what additional work will be taken to calibrate the model over a wider area.

In reviewing the recent submittals of the groundwater monitoring results, I do not find any groundwater elevation or odor results. Please describe how the odor test is conducted and send me available odor and groundwater elevation data since January 1986.

Please call me if you have any questions concerning this letter.

Sincerely,

Mark Tusler, Hydrogeologist

Marke Tuster

Hazardous Waste Management Section

Bureau of Solid Waste Management

<del>cc: Ted Bosch</del>/Frank Schultz/Greg Pilarski - SED

Marion Barnes - EPA Region V

Village of Saukville

Roger Hatcher - Hatcher, Inc.

Lee Boushon - WS/2