

WDNR

P.O. Box 12436  
Milwaukee, WI 53212

July 31, 1987

3430

Mr. Russel Cerk  
Vice-President Manufacturing  
Freeman Chemical  
P.O. Box 247  
Port Washington, WI 53074

Dear Mr. Cerk:

RE: Milwaukee River Odor Complaints and Review of the Report  
"Assimilation Study of Freeman Chemical Corporations VOC  
Contaminated Groundwater at the Saukville POTW"

In mid-June of this year, we received numerous complaints of "chemical odors" on the Milwaukee River from people downstream of Freeman's discharge. Some of these people were a significant distance downstream of Saukville so we feel that they were not smelling air emission odors from the plant itself. In response to these complaints, I visited the Freeman plant on June 26, to obtain a sample from your discharge. A standard odor test gave a threshold value of 500. A sample of the Saukville treatment plant taken that day gave a value of 12.

Based on this data, the elevated pollutant concentrations as compared to the initial data reviewed for permit acceptance and our concern for possible toxicity in Freeman's discharge to the Milwaukee River, the Department is considering revocation of your WPDES permit no. WI-0027731-4 and determining that your discharge of contaminated groundwater is not eligible for the general permit. Prior to making a final decision, the Department requests you to have Freeman's discharge #001 and effluent from the Saukville POTW analyzed for VOC and based neutral/acid extractible compounds. Analysis for these pollutants shall be performed using EPA methods #624 and #625, as modified by the EPA Contract Lab Program (CLP). Sample collection, storage and analysis shall conform to Chapter NR 218 and NR 219 Wisconsin Administrative Code.

In addition to the pollutants, a reasonable attempt shall be made to identify and quantify the ten most abundant constituents of each extract (excluding priority pollutants and unsubstituted aliphatic compounds). These additional constituents are shown to be present by peaks on the total ion plots (reconstruction gas chromatograms) where the peaks are more than ten times higher than the adjacent background noise. Identification shall be attempted through use of the U.S. EPA/NIH computerized library of mass spectra, with visual confirmation by an experienced analyst.

The Department also requests toxicity testing of representative samples of your discharge and POTW effluent. This testing should address acute and chronic toxicity using fat head minnow larvae and Ceriodaphnia dubia. Procedure for acute toxicity testing shall conform to EPA bulletin number EPA/600/4-85/013 and chronic toxicity shall conform to EPA bulletin number EPA/600/4-85/014. There are 3 testing laboratories we know of that do this testing. They are EA, Engineering Science Technology in Sparks, Maryland, Environmental Science and Engineering in Gainesville, Florida (you can contact a Ms. Donna Baker at (314) 567-4600) and Aqua Tech Environmental Consultants Incorporated in Melmore, Ohio (contact person is Mr. Paul Crerar at (419) 397-2659).

Reporting of the pollutants and most abundant constituents monitoring results shall include information on sample collection, sample preservation, analytical method uses and interpretation of the results of the analysis. the Department feels strongly that the analysis needs to be performed to provide adequate information for a determination. Failure to report the above data may result in revocation of Freeman's permit.

The Department has reviewed the report "Assimilative Study of Freeman Chemical Corporation's VOC Contaminated Groundwater at the Saukville POTW". At the March 25, 1987 meeting where the assimilative study was discussed, the Department requested VOC analysis of groundwater discharged to the sanitary sewer, POTW influent, effluent and sludge. The assimilative study report shows that only the effluent received this VOC testing. COD was used as a surrogate analysis for groundwater discharged to the sanitary sewer and POTW influent. Based on an analysis using an unsupported and undocumented relationship between COD and VOC, the report contends a 99.6 to a 99.9% removal by the POTW.

The report does not provide sufficient information to evaluate assimilation by the POTW. Removal efficiencies must be determined for individual compounds to adequately document treatment. Submit a sampling plan to address the treatability of the contaminated groundwater at the POTW. Sample the discharge to the sanitary sewer, POTW influent, effluent and sludge for method 624 parameters as modified by the CLP. Provide at least 3 sampling rounds to estimate treatment variability. Collect sufficient information on flow rates for the groundwater to the sanitary sewer (whether periodic or continuous), POTW influent and POTW sludge to estimate the mass balance of the contaminants at the POTW.

Because we feel that water quality standards may be violated by your discharge, we request that information on the pollutant scan be submitted to the Department district headquarters in Milwaukee no later than September 30, 1987. Results from the toxicity testing will be submitted by November 30, 1987 and the remaining information submitted no later than January 1, 1988. All material shall be

submitted to the Departments district office at 2300 North Martin Luther King Drive, Milwaukee, Wisconsin. If you have any questions concerning this request, please feel free to contact Mike Sloat at (414) 562-9689.

Sincerely,

Theodore Bosch  
Wastewater Supervisor

jd

c: Brian Barbieur - DNR - WW/2  
Jeff Bode - WRM - SED  
Jim Fratrick - MWW - SED  
Industrial File - SED  
Mark Tusler - SW/3  
Roger Hatcher - Hatcher, INC.  
Jeffery Knight - Saukville POTW