

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Carroll D. Besadny
Secretary

April 15, 1992

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File Ref:

Ozaukee Co.
ERRP
ER

Mr. Thomas P. McElligott
Quarles & Brady
411 East Wisconsin Avenue
Milwaukee, Wisconsin 53202-4497

Re: Work Plan For Remedial Investigation
Former Mercury Marine Plant No. 1
Cedarburg, Wisconsin

Dear Mr. McElligott:

The Department of Natural Resources has completed its review of the February 1992 Work Plan For Remedial Investigation at the Former Mercury Marine Plant No. 1 in Cedarburg, Wisconsin submitted on behalf of your client Mercury Marine Division of Brunswick Corporation as prepared by CH2M Hill.

Background

There is a dual purpose for this remedial investigation. The Department's environmental repair study found contaminated groundwater in two locations, MW-6 and P-6, at the former Mercury Marine Plant 1 site. The highest level of trichloroethylene found in the shallow monitoring well, MW-6, was 4960 ug/l which is approximately 1000 times greater than the enforcement standard¹ of 5 ug/l for trichloroethylene. The highest level of trichloroethylene found in the piezometer, P-6, was 280 ug/l which is 56 times greater than the enforcement standard. The presence of contaminants in these groundwater samples indicates that a discharge of a hazardous substance has occurred. The first purpose of this investigation is to determine the degree and extent of contamination at the former Mercury Marine Plant 1.

¹ Wisconsin Administrative Code NR 140 Groundwater Quality, January 1992.

City of Cedarburg Well 3 is located approximately 150 feet to the north and west of MW-6 and P-6. Trichloroethylene has been found in Well 3 at levels that are greater than the enforcement standard and the maximum contaminant level². The Department agrees with the assertions made in the proposal about the need for further study to better determine the hydrogeologic characteristics of the upper aquifer (glacial till)³, the dolomite aquifer and the possible contaminant transport mechanisms in the vicinity of City of Cedarburg Well 3 and former Mercury Marine Plant 1. The second purpose of this investigation is to evaluate the relationship between the TCE contamination present at the former plant and the TCE contamination found in City of Cedarburg Well 3.

Discussion

The proposed work plan is a good outline of tasks to be performed to achieve the investigation goals on page 5 of the CH2M Hill submittal. These investigation goals most closely match the Department's second purpose which is to evaluate the relationship between the TCE contamination at the former plant and the TCE contamination found in City of Cedarburg Well 3. The goals and tasks of the remedial investigation should be expanded to address the Department's first purpose which is to determine the degree and extent of contamination at the former plant. Brief comments are included in the attachment and are arranged by the outline in the proposed work plan.

According to the schedule in the proposed work plan, a review of available information (Task 1) and investigation support (Task 2) are to be performed prior to the field investigation. Additional information obtained as part of this work should be used to better determine the location, type, and number of environmental sample points and to develop a detailed work plan for the field investigation.

Department Approval

Please proceed with Tasks 1 and 2 in the proposed work plan. **Task 1 --- Collect and Review Available Information** includes two subtasks which are to obtain and review plant drawings and records and to review available reports. **Task 2 --- Investigation Support** includes two subtasks which are to prepare a site specific quality assurance project plan and a site sampling plan and to procure subcontracted services for drilling and analytical work. The Department understands that it may be necessary to delay the procurement of subcontracted services until Department approval is received for the revised field investigation proposal.

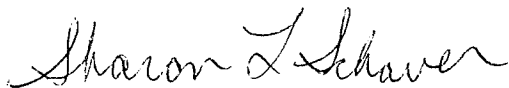
² Wisconsin Administrative Code NR 109 Safe Drinking Water, March 1991.

³ The glacial till aquifer is less than 20 feet thick at the WDNR MW-6 and P-6 locations.

Figure 2 of the proposed work plan is a project schedule for the investigation. According to this schedule, the time requirement for completion of Tasks 1 and 2 is approximately two months. Accordingly, **an interim report of this phase of the remedial investigation should be submitted to the Department by June 16, 1992.** This interim report should address concerns, recommendations, and requirements in the attached review comments and contain the results of Tasks 1 and 2 of the investigation. Additionally, the interim report should propose a revised work plan for the field investigation. At that time, the Department will review and approve the remaining tasks to complete the investigation.

If there are questions about this correspondence, I can be contacted at (414) 263-8686 or the above address.

Sincerely,



Sharon L. Schaver
District Hydrogeologist

cc: Tom Baumgartner, Mercury Marine
John Fleissner, CH2M Hill
Robert Strous, SW/3
James Schmidt, SED
Robert Krill/Robert Baumeister, WS/2
Gregory Pilarski, SED
Honorable John P. Kuerschner - Cedarburg
Stephen Castner, City Attorney - City of Cedarburg
Glenn Frank, Cedarburg Light & Water Commission
Scot - Division of Ardox Corp.

encl: Remedial Investigation Checklist

ATTACHMENT

Task 1 ---- Collect and Review Available Information

P.5. Subtask 1.1 proposes to obtain and review plant drawings and records. According to the scope of work/work plan, this review would identify locations of tanks and underground utilities, past production operations, and past material and waste management practices.

P.6. Subtask 1.2 proposes the review of past reports (WDNR and City of Cedarburg), geologic information on the dolomite aquifer (WG&NHS), and review of the SEWRPC aerial photography maps of the site.

The Department recommends that the schedule be revised to use the information obtained by this review to better locate environmental sampling locations (groundwater monitoring wells, soil borings, soil vapor surveys).

Task 2 ----- Investigation Support

P.6. Subtask 2.1 proposes the preparation of a quality assurance project plan and site sampling plan. This plan should be submitted to the Department for review and written approval.

[The following tasks will be reviewed in more detail after submittal of the interim report.]

Task 3 ---- Field Investigations

The proposed field investigation includes site mapping, piezometer installation, groundwater grab sampling, and pumping tests.

The installation of six piezometers is proposed as part of the investigation. The groundwater monitoring wells (piezometers) should be constructed and installed according to Wisconsin Administrative Code NR 141 Groundwater monitoring well requirements.

The proposed investigation limits the collection of environmental samples to groundwater grab samples during the installation of the new piezometers and from P-6 and MW-6. The investigation should also include soil sample analysis (field screening and collection of soil samples for chemical analysis).

Task 4 --- Data Validation and Management

Data validation procedures should be provided for Department approval in the interim report.

Task 5 - Data Evaluation

(No comment at this time.)

Task 6 - Investigation Report

In addition to the proposed report format, the field investigation report (or second report) should include laboratory reports, chain of custody documentation, and field notes.

Included for your use is a copy of our Remedial Investigation Checklist which was developed for use in the leaking underground storage tank program. We recommend that this checklist be used as guidance for the investigation report.