



George E. Meyer
Secretary

file
State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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April 26, 1995

IN REPLY REFER TO: ERRP

Mark A. Gregory
Coleman Engineering Co.
635 Industrial Park Drive
P.O. Box 607
Iron Mountain, MI 49801

Bette Premo, PhD
White Water Assoc. Inc.
429 River Lane
P.O. Box 27
Amasa, Michigan 49907

SUBJECT: SI Work Plan Review
C.M. Christiansen Project

Dear Mr. Gregory:

We have completed the review of the April, 1995 Site Investigation Work Plan for the C.M. Christiansen Project. The SI Work Plan is conditionally approved. Modifications discussed in the attached, SI Work Plan Review will need to be incorporated into a letter of modification and attached to the April, 1995 Work Plan. This letter of modification must be attached at the beginning of all current work plans. It is our hope that the letter of modification will eliminate the need for a second draft of the SI Work Plan.

The letter of modification, should be submitted by May 5, 1995.

I want to thank you for your efforts in association with this work plan.

Should you have questions concerning this review or any other project question, please contact me at (telephone) 715-365-8961 or (email) watsom@dnr.state.wi.us.

Sincerely,
North Central District

M. Scott Watson
Environmental Repair Coordinator

c: Connie Antonuk, NCD
Michelle Owens, NCD
P.C. Christiansen



**SI Work Plan Reveiw
C.M. Chritstian Project
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- P. 5 A)2)c) Reference is made to composite samples being collected from impacts of similar origin. This issue must be clarified. Composite samples will not be approved for separate areas of contamination. As an example, samples collected from "area a" in the north east corner of the site cannot be composited with samples from "area b" located by the dip tanks. This condition will apply even if it is apparent that the impact may be of similar origin, as is referenced in the SI Work Plan.
- P. 12 H)2)a) Barrels containing investigate waste must be labeled as to point of generation. In addition, the barrels must be appropriately labeled as hazardous to health. Investigative waste barrels should be consolidated into a single on site storage area.
- P. 14 H)4) Groundwater monitoring well construction references a 0.010 slot well screen. Well screen should be appropriately sized to formation conditions. Department files may contain information that would be helpful in determining formation characteristics.
- P. 16 H)4) Development water and soil cuttings must be labeled as to point of generation. In addition, the barrels must be appropriately labeled as hazardous to health. Investigative waste barrels should be consolidated into a single on site storage area. Barrels containing water must be removed from the site prior to freeze up.
- P. 17 H)5)b) Purge volumes must follow Wis. Adm. Code NR 141. Your calculation does not include volume from the filter pack. The well volume includes not only the I.D. of the PVC well screen, but includes the pore space of the filter pack as well.
- Wis. Adm. Code NR 141 requires 10 well volumes be removed or until the well produces sediment free water.
- P. 27 T. 3 A base line should be established for CO₂.

P. 28 K) The USDA soil classification should be considered as a replacement for the USCS soil classification system. The USDA system may provide more appropriate information about soil characteristics relevant to pentachlorophenol contamination.

P.33 O) The proposed schedule needs to be looked at for stream lining. Two issues exist with respect to the schedule. First, an evaluation of an interim remedial action should take place at the end of the phase I investigation. The evaluation must look beyond a passive bio assessment.

The second issue is to reduce the total time of the project. An alternate schedule has been proposed. The alternate schedule will allow time to design a remedial action in time for implementation in the 1996 construction season. The original schedule would potentially jeopardize this goal.

The Department will not need to review the historical review as proposed in the SI Work Plan. Details of boring locations, well locations and other work can be submitted in letter format.

