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**FERNALD ENVIRONMENTAL MANAGEMENT
PROJECT WESTINGHOUSE MATERIALS
COMPANY OF OHIO HAMILTON OHIO NON-
TRANSIENT MAJOR NON COMMUNITY WATER
SUPPLY PWS I.D. #3136512**

10/15/91

OEPA/DOE-FSO

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LETTER



State of Ohio Environmental Protection Agency

Southwest District Office

40 South Main Street
Dayton, Ohio 45402-2086
(513) 285-6357
FAX (513) 285-6249

2300

George V. Voinovich
Governor

October 15, 1991

RE: FERNALD ENVIRONMENTAL MANAGEMENT
PROJECT
WESTINGHOUSE MATERIALS COMPANY OF OHIO
HAMILTON COUNTY
NON-TRANSIENT
MAJOR NON COMMUNITY WATER SUPPLY
PWS I.D. #3136512

Mr. Gerald W. Westerbeck
FEMP Site Manager
P. O. Box 398705
Cincinnati, Ohio 45239-8705

Dear Mr. Westerbeck:

On August 15, 1991, Mr. Michael Joseph and I met with Mr. Lee Pennington, Mr. Jeffrey Hensley, and Mr. Frank Johnston, all representing FEMP. The purpose of the survey was to evaluate the capability of the drinking water facilities and operating practices to continually provide adequate safe drinking water to consumers, while complying with the State's Safe Drinking Water Laws.

As a result of the survey and a review of the files I have the following comments:

1. Currently required contaminant monitoring includes analyses for total coliform bacteria, volatile organic chemicals, and nitrate. The FEMP water system is currently in compliance with the monitoring requirements for these contaminants. In addition, no maximum contaminant level violations have occurred since the last sanitary survey. Specific sample collection dates and monitoring requirements are listed below:

<u>Contaminant Group</u>	<u>Most Recent Sampling Date</u>	<u>Required Sampling Frequency</u>	<u>Comments</u>
volatile organic chemicals	8/13/91	Every three months from all wells and plant tap, until 4 consecutive quarters without detecting VOC's, then every three years	A.
nitrate	8/14/91	every three years	A.
total coliform bacteria	Sept. 1991	2 samples/month	A. OCT 17 1991

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- A. This sample maintains your compliance current monitoring requirements. If a sample analyzed for any of these contaminants is found to exceed the MCL, the result should be promptly reported to Ohio EPA.
2. In May of 1991, the U.S. EPA promulgated new National Primary Drinking Water Regulations (NPDWR) for lead and copper. These new rules require water systems like FEMP's to begin tap water monitoring for lead and copper in the six month monitoring period beginning in July, 1992. I have enclosed a U.S. EPA fact sheet on these new rules, and I encourage you to familiarize yourself with these rules in advance, since substantial preparation is required for compliance with the monitoring requirements.

We expect additional changes to the contaminant monitoring requirements in the future, including monitoring for additional contaminants, and changes to monitoring requirements for currently regulated contaminants. We will keep you informed as additional information becomes available.

3. In past sanitary surveys, we have identified the lack of a backflow prevention and cross connection control program as a serious hazard to the water system. It was first reported by your company personnel last year, that an air gap separation tank was being considered to address this hazard. During our 1991 survey, Mr. Pennington reported that this tank will definitely be installed, with work to begin in 1991.

Mr. Pennington inquired as to the Ohio EPA requirements guiding the testing, repair and replacement of backflow prevention devices by the water system personnel. Water system personnel may perform these maintenance actions on backflow prevention devices in your water system, provided the personnel are qualified to perform this work. We will expect you to be able to document the qualifications of the individuals performing the work.

The Hamilton County Health Department (HCHD) may have backflow prevention requirements that differ from Ohio EPA's requirements. Please contact Mr. Robert Sinnard of the plumbing section of the HCHD at 513-632-8450, for additional information.

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While we are still concerned about the possibility of backflow, we do commend FEMP on these planned improvements and encourage you to move forward quickly.

4. Mr. Pennington reported that FEMP plans to replace the existing lime-softening treatment plant with a new electro dialysis system. It has been suggested by FEMP personnel that plan approval for this new system is not required, based upon the agreement between DOE and U.S. EPA concerning the site remediation. While systems directly related to this site remediation agreement may be exempt from ordinary review and approval, this proposed public water system is not exempt, because collection and treatment of drinking water is not part of any CERCLA remedial action.

It will be necessary for you to submit detail plans for this proposed system to Ohio EPA for review, as specified in the Ohio Revised Code, Section 6109.07. It is a violation of Section 6109.07 of the ORC to begin construction or installation of a public water system without first receiving plan approval. Considering the size, cost, complexity and unique technology of this proposed system, I strongly urge you to discuss this plan with Dr. Ashley Byrd, Manager of Engineering and Operations in our Central office, at the earliest possible stage. Dr. Byrd can be reached at (614) 644-2752. I encourage you to discuss the disposal of the electro dialysis wastewater with Mr. Matt Walbridge of our water pollution control division. Mr. Walbridge can be reached at (513) 285-6357.

Plans should be submitted to:

Ohio EPA
40 S. Main Street, 5th Floor
Dayton, Ohio 45402
Attention: James P. Garties, P.E.
Division of Public Drinking Water

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Mr. Pennington inquired as to what plant classification might be issued, if the proposed electro dialysis plant was approved and installed.

While I cannot be exact until final plans are available, I can estimate that if the plant capacity is similar, the new plant would most likely be a Class II plant.

5. Recently adopted Rule 3745-81-76 of the Ohio Administrative Code requires us to evaluate your wells with regard to the potential influence by surface water. Factors considered in this evaluation include construction of the well, proximity to potential contamination sources, quality of the untreated water, and other factors.

As a result of this evaluation, your wells have been preliminarily designated as wells under the direct influence of surface water. This designation is a result of improper venting on all of your wells. Currently, the wells are vented by means of "vent ports" in the base of the turbine motors. These wells should be modified so that vent tubes extend upward and out of the turbine motor base, then are downturned and screened. It is anticipated that your wells will be re-evaluated and designated as groundwater sources, subsequent to these vent modifications.

I encourage you to complete these improvements promptly, in order to avoid the costly and complex requirements that a water source designation as "groundwater under the direct influence of surface water" could impose.

6. During the treatment plant inspection, I noted that no chlorine residual is maintained in the phosphate solution tank. Since phosphate is a nutrient to certain microorganisms, Ohio EPA policy is to require that a chlorine residual of 10 mg/l free chlorine be maintained in phosphate solution tanks. Please insure that your phosphate solution tank is protected in this manner in the future. I have enclosed the Ohio EPA's policy on phosphate use, for your review.
7. Overall, the water system is in good condition, and is conscientiously and professionally operated. Substantial improvement has been noted on every comment requiring action in our 1990 survey letter. Specifically, the following improvements were noted: the chlorine room has

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been sealed and vented, and the auto-switchover from empty cylinders to full cylinders was installed; the area around the wells has been cleaned of all paints and refuse; the requirement for backflow prevention is being actively addressed; and a new drinking water laboratory was approved on site for wet chemistry. We appreciate your prompt attention to these items, which improve the safety and quality of the water you supply.

Please respond to me in writing, concerning the items in this survey letter, particularly items #2 thru #6, to inform me of your intentions concerning these issues.

If I can be of further assistance, please contact me at 513-285-6114.

Sincerely,



Kurt A. Messer
Public Drinking Water Unit

KAM/bjb

cc: Lee Pennington, Manager of Utilities
Jeffery T. Hensley, Superintendent of Water Supply
James McDonald, Environmental Division
Jack Craig, Chemical Engineer
Margaret Wilson, Environmental Engineer
Thomas Maley, MBHA, Hamilton County Health Commissioner
Enforcement & Operations, DPDW, CO