



State of Ohio Environmental Protection Agency

Northeast District Office

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

June 16, 2009

RE: HIRAM WWTP
NPDES #3PB00020
COMPLIANCE EVALUATION INSPECTION

Mr. Matthew Kohn
Village of Hiram
Water Pollution Control Plant
11617 Garfield Road
PO Box 65
Hiram OH 44234

Dear Mr. Kohn:

This letter will document a June 11, 2009 compliance inspection conducted at the wastewater treatment plant serving the village. We also discussed your ongoing efforts to address copper in the plant effluent in preparation for new more stringent effluent limits.

A computer review of daily monitoring reports was conducted for the time period January 2008 through April 2009. The following effluent violations were identified:

Reporting Period	Parameter	Limit Type	Limit	Reported Value	Violation Date
June 2008	Copper, TR	30D Conc	26.5	29.5	6/1/2008

The plant is well maintained and produces an acceptable effluent.

One comment on the plant which should be addressed involves the clarifier weirs. It appears that the corners of each weir box are receiving a greater amount of flow than the remaining weir notches. This flow seems to be exiting at the corner joints of the weirs. This discharge will reduce the overall linear weir overflow rate. Please see to it that this is addressed.

We also took some time to discuss the final effluent copper limit which will begin on June 1, 2010. The new limits of 14 µg/l for a monthly average and 22 µg/l for a weekly average will present a challenge to the plant. These limits were based on your discharge to a low flow stream with a low hardness, based on available data. While the stream flows will not change, it is possible that specific hardness data for the receiving stream may be different. Your effluent data for the time period 2003-2008 (n=14) indicates an average copper concentration of 30.57 µg/l and a maximum of 44 µg/l.

I have reviewed the effluent data for several other plants in the area and it appears that your effluent indicates a higher copper in the discharge. The data is included in the table below.

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	Effluent			Influent			
	Sample Size	Mean	Maximum	Average Plant Flow	Sample Size	Mean	Maximum
Hiram	14	30.5	44	0.125	4	531.5	1440
Twin Lakes	58	9	29	0.282			
Kent	73	2.52	27	2.62	90	59.94	196.3
Franklin Hills	47	9.4	29	1.27	27	80	278

Although Hiram does not have the similar sample sizes, available data indicates that the plant discharges at a higher level and also that it has a higher influent concentration.

You have done some preliminary sampling of boiler blow down at Hiram College. Several of these samples showed elevated copper. You have also indicated that the college is working to upgrade boilers with non-discharging processes.

A mass balance calculation using the following parameters:

WWTP copper concentration in effluent = 22 µg/l (in compliance with new permit limit),

WWTP flow = 125,000 gallons per day

Boiler copper concentration = 5040 µg/l (maximum),

Boiler copper concentration = 1646 µg/l (average),

indicates that effluent concentrations can be raised to non-compliance (by 1 µg/l) with a flow of 78 gallons per day of boiler blow down at average concentrations (1646) and a flow of 25 gallons per day at the maximum concentration (5040).

At this time I would like to propose an initial sampling program for you to conduct in order to gather data on copper concentrations in the plant influent and effluent. Please consider the following:

Month of July: Sample the plant influent at two points (north trunk and east trunk). Each influent point should be sampled 5 times per week for the entire month. This would result in a total of 40 copper samples. Sampling should be once per day during the weekdays. At the same time an effluent sample should be collected and analyzed for copper. This would end up with a data set of 60 samples.

Month of October: Sample the plant influent at two points (north trunk and east trunk). Each influent point should be sampled 5 times per week for the entire month. This would result in a total of 40 copper samples. Sampling should be once per day during the weekdays. At the same time an effluent sample should be collected and analyzed for copper. This would end up with a data set of 60 samples.

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This information will help us determine if there are different influent copper concentrations from the two trunk lines. It will also allow us to determine what influence the college may have when in session.

Please be advised that Ohio's regulations governing pretreatment, in part, state the following:

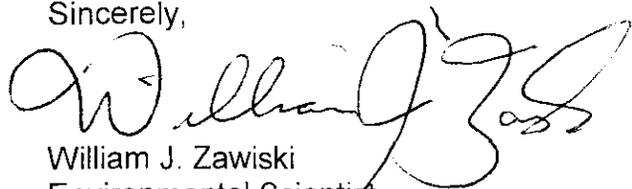
3745-3-04 Prohibited discharges.

(A) Pollutants introduced into POTWs by an industrial user shall not pass through the POTW or interfere with the operation or performance of the POTW. These general prohibitions and the specific prohibitions in paragraph (B) of this rule apply to all sources of indirect discharge whether or not the source is subject to other national, state, or local pretreatment standards or requirements.

Based solely on the mass balance, it is possible that the college could discharge boiler blow down to the sewer system at levels which could negatively influence your effluent. They are also not the only potential source of copper in the system. The groundwater sample result you provided from November 2008 is also above your final copper effluent limit. It is also possible that your groundwater is a little more corrosive to the copper pipes than that in other systems. This can also result in elevated copper influent concentrations. Please work with our Division of Drinking and Groundwater staff to assess your treated water.

Should you have any further questions please do not hesitate to call me at (330) 963-1134.

Sincerely,



William J. Zawiski
Environmental Scientist
Division of Surface Water

WJZ/mt

cc: Robert Simon, Village of Hiram Wastewater Treatment Plant
Mike Stevens, Ohio EPA, DSW, NEDO

