



Environmental
Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

March 11, 2011

John Francisco, Jr.
Hayden Heights MHP
P.O. Box 20434
Columbus, OH 43220

**Re: 4PV00110/ OH0136051
Reconnaissance Inspection
Hayden Heights MHP WWTP
Franklin County**

Dear Mr. Francisco:

On February 16, 2011, a Reconnaissance Inspection was conducted for the Hayden Heights MHP wastewater treatment plant (WWTP) located at 5501 Cosgray Road, Amlin, Ohio. Present for the inspection were Patrick Hickman, the Operator of Record, Richard Mentzer representing Hayden Height MHP and myself of the Ohio EPA, Central District Office, Division of Surface Water. The purpose of the inspection was to evaluate compliance with the terms and conditions of the National Pollutant Discharge Elimination System (NPDES) permit. **There have been numerous effluent violations and therefore, this report also serves as a Notice of Violation of your wastewater discharge permit for this facility.**

For the effluent violation review done between May 2010 and January 2011, the Hayden Heights MHP was on our significant non-compliance list for fecal coliform and pH violations. Significant non-compliance is obtained in a variety of ways, but for fecal coliform, Hayden Heights MHP has had violations exceeding 40% of the permit level in at least two months out of a six month period. For the pH violations, Hayden Heights MHP has had violations in 4 out of 6 month period. Facilities in significant non-compliance are put on a list which is reviewed by Ohio EPA and U.S. EPA. If the facility is unable to meet its permit limits and if Ohio EPA does not take enforcement action, U.S. EPA can choose to issue its own enforcement action. A facility must achieve compliance with the permit limits for three consecutive months to be taken off the list.

Hayden Heights MHP was removed from the significant non-compliance list due to compliance with the effluent limits. However, Hayden Heights MHP is habitually in significant non-compliance. Between June 2009 and December 2009, the facility was in significant non-compliance due to fecal coliform violations. Between March 2008 and September 2008, the facility was in significant non-compliance for total suspended solids, ammonia, fecal coliform, and residual chlorine violations. Modifications have recently been made to the WWTP which should help reduce the violations. However, continued non-compliance is not acceptable.

John Francisco, Jr.
Hayden Heights MHP
Page -2-

Attached is the Reconnaissance Inspection Report. There are a few items which require a written response. **Please respond in writing within 30 days of the receipt of this letter.**

If you have any questions or comments concerning the enclosed inspection report, please contact me at (614) 728-3846.

Sincerely,

A handwritten signature in cursive script that reads "Cole Miller".

Cole Miller
Environmental Specialist
Field Operations Unit
Division of Surface Water
Central District Office

CM/nsm Hayden Heights Recon Inspection 2-9-11

NPDES Compliance Inspection Report

SECTION A: NATIONAL DATA SYSTEM CODING					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
4PV00110*BD	OH0136051	2/16/11	R	M	1

SECTION B: FACILITY DATA		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
John Francisco Jr. dba Hayden Heights MHP WWTP 5501 Cosgray Road, Amlin, Ohio 43002	10:00 AM	2/1/09
	Exit Time	Permit Expiration Date
	10:50 AM	1/31/14
Name(s) and Title(s) of On-Site Representatives	Phone Number	
Patrick Hickman, Operator of Record Richard Mentzer, Maintenance Supervisor	(614) 578-6203	
Name and Title of Responsible Official	Phone Number	
John Francisco Jr., Owner, Hayden Heights Mobile Home Park, P.O. Box 20434, Columbus Ohio, 43220	(614) 451-2899	

SECTION C: AREAS EVALUATED DURING INSPECTION		
Key: S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated		
S	Permit	
M	Records/Reports	There is no data in the e-DMR system for May 2009. There are a other missing data entries as well.
U	Operations & Maintenance	All four sand beds were ponded and clogged with solids.
S*	Facility Site Review	There are replacements and upgrades that have been made to the plant.
M	Collection System	Flows peak at about 3 times the design flow.
S	Flow Measurement	
N	Laboratory	
U	Effluent/Receiving Waters	Facility has numerous violations and has been in significant non-compliance.
S	Sludge Storage/Disposal	
N	Pretreatment	
N	Compliance Schedule	
S	Self-Monitoring Program	

Signatures			
	3.11.11		3.7.11
Cole Miller, Inspector Compliance & Enforcement Division of Surface Water Central District Office	Date	Erin Sherer, Reviewer Compliance & Enforcement Supervisor Division of Surface Water Central District Office	Date

Summary of Findings and Comments Hayden Heights MHP WWTP

General

The Hayden Heights MHP sewage treatment plant consists influent pumping, aeration, clarification, dosing tank, chlorination at the splittler box to the sand filters, surface sand filters, dechlorination and post aeration. The facility also has an aerated sludge holding tank. The design capacity of the plant is 40,000 gpd.

1. At the time of the inspection, the following general observations were made with the operation and maintenance at the plant:
 - a. A dosing station pumps the effluent from the clarifier to one of four sand filter beds. All four of the beds had thick layers of solid deposits and were ponded. The operation of the plant is hindered by this and measures to fix the situation should be taken immediately to fix the situation. **Please respond, in writing, with a schedule of making the sand filters operable. Note that repairs to the treatment plant do not permit the facility to go into disarray.**
 - b. The operator maintains a log book on site with observations. I would recommend that the person who does something write down the observation instead of the operator of record being the sole recorder of activities.
 - c. MASI does the laboratory work and also grab sampling. A plant operator does the composite sampling. The samples are collected just downstream of the post-aeration.
 - d. The operator performs a monthly draw down test to check the flow rate. It was indicated that there was little variation.
 - e. The plant is served by gravity sewers.
2. The following has changed since the last inspection:
 - a. The skimmer in the clarifier is now adjustable.
 - b. There are new grates installed over the clarifier.
 - c. A new clarifier weir was installed with angled baffles.
 - d. Some concrete repairs have been made to the sand filter walls.
 - e. A new post-aeration blower was installed.
 - f. The baffles in the post-aeration and dechlorination tank were replaced.

3. The attached table contains a list of NPDES permit violations for the time period between May 2010 and January 2011 followed by a table summarizing flow since April 2010. The facility will likely benefit from I&I work. Finally, in addition to the missing eDMR data from May 2009, there is also more data missing which you can see in the third table. **Please submit complete e-DMRs for the missing dates.**
4. Our records indicate that there is a trash trap but I do not recall seeing one. **Is there any preliminary screening on the plant? Please comment.**
5. The operator asked about pH violations and how the facility could stop the violations. The most common reason is for high ammonia or low alkalinity influent. During the nitrification process when bacteria converts ammonia to nitrite and then to nitrate, the bacteria will consume alkalinity and produce carbonic acid making the system more acidic.

However, low pH (6.1 to 6.3) correlates to poor conversion to nitrate as the nitrifying bacteria is less effective in low pH. The ammonia concentrations from the effluent at Hayden Heights MHP are regularly very low. This suggests that the problem could be with the sampling instruments.

Another possible sampling issue is that the dissolved oxygen has consistently been low. A possible explanation for this is that the aeration process is not acquiring enough oxygen for the bacteria. But this possibility does not show itself in the data as your CBOD levels have also been low. Again, this could be sampling problems or it could be a side effect of ponding of the sand filters if it occurs often and with solid deposits.

6. The effluent from the post aeration tank looked clear. The outfall was not investigated.

Hayden Heights MHP Effluent Violations May 2010-January 2011

Reporting Period	Parameter	Limit Type	Limit	Reported Value	Violation Date
May 2010	Fecal Coliform	30D Conc	1000	5000.	5/1/2010
May 2010	Fecal Coliform	7D Conc	2000	5000.	5/1/2010
May 2010	Dissolved Oxygen	1D Conc	6.0	5.8	5/3/2010
May 2010	Dissolved Oxygen	1D Conc	6.0	5.1	5/10/2010
May 2010	Dissolved Oxygen	1D Conc	6.0	5.9	5/17/2010
May 2010	Dissolved Oxygen	1D Conc	6.0	5.7	5/24/2010
June 2010	Fecal Coliform	30D Conc	1000	10000.	6/1/2010
June 2010	Fecal Coliform	7D Conc	2000	10000.	6/1/2010
June 2010	Dissolved Oxygen	1D Conc	6.0	5.9	6/1/2010
June 2010	Total Suspended Solids	7D Conc	18	21.	6/8/2010
June 2010	Dissolved Oxygen	1D Conc	6.0	2.8	6/14/2010
July 2010	Fecal Coliform	30D Conc	1000	2300.	7/1/2010
July 2010	Fecal Coliform	7D Conc	2000	2300.	7/1/2010
July 2010	pH	1D Conc	6.5	5.1	7/12/2010
July 2010	pH	1D Conc	6.5	6.3	7/19/2010
July 2010	Dissolved Oxygen	1D Conc	6.0	5.1	7/26/2010
August 2010	Fecal Coliform	30D Conc	1000	1200.	8/1/2010
August 2010	pH	1D Conc	6.5	6.3	8/10/2010
August 2010	Dissolved Oxygen	1D Conc	6.0	5.7	8/10/2010
August 2010	pH	1D Conc	6.5	5.6	8/16/2010
September 2010	pH	1D Conc	6.5	6.1	9/7/2010
September 2010	Dissolved Oxygen	1D Conc	6.0	5.7	9/7/2010
September 2010	Total Suspended Solids	7D Conc	18	24.	9/8/2010
September 2010	pH	1D Conc	6.5	6.3	9/20/2010
September 2010	Dissolved Oxygen	1D Conc	6.0	5.9	9/27/2010
October 2010	Total Suspended Solids	30D Conc	12	15.75	10/1/2010
October 2010	Total Suspended Solids	7D Conc	18	30.	10/1/2010
October 2010	pH	1D Conc	6.5	6.3	10/4/2010
October 2010	Total Suspended Solids	7D Conc	18	28.	10/8/2010
December 2010	Dissolved Oxygen	1D Conc	6.0	2.7	12/20/2010
December 2010	Dissolved Oxygen	1D Conc	6.0	3.5	12/28/2010

Flow Information for Hayden Heights for 2010		
	Flow (gpd)	Date
Highest Flow Rate	0.104	3/15/2010
Second Highest Flow Rate	0.0835	3/29/2010
Average for the Period	0.0375	

**Hayden Heights MPH Monitoring Frequency Violations (Missing Data)
May 2010 - January 2011**

Reporting Period	Parameter	Sample Frequency	Expected	Reported	Violation *Date
June 2010	pH	1/Week	1	0	06/08/2010
June 2010	pH	1/Week	1	0	06/15/2010
June 2010	pH	1/Week	1	0	06/22/2010
June 2010	Flow Rate	1/Day	1	0	06/30/2010