



**Environmental
Protection Agency**

John Kasich, Governor
Mike DeWine, Lt. Governor
Robert M. Whitely, Director

September 4, 2012

David Kelly, Regional Vice President of Operations and Sales
Sun Communities
27777 Franklin Rd, Suite 200
Southfield, Michigan 48034

**Re: Worthington Arms MHP
NPDES Permit 4PV00093/ OH0081213
Reconnaissance Inspection
Delaware County**

Dear Mr. Kelly:

On August 13, 2012, a Reconnaissance Inspection was conducted at the Worthington Arms MHP. Present for the inspection were yourself and Mike McLaughlin from Astbury Water Technology, Inc, representing Sun Communities, Melissa Adams from the Delaware General Health District 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 your NPDES permit and to evaluate the operation and maintenance of the plant. Additionally, we discussed discharges associated with the filter backwash at the swimming pool.

The inspection raised several concerns which must be addressed in the following areas:

Inflow and Infiltration – NPDES permit violations at this facility have decreased significantly since the previous inspection and the plant was removed from the Significant Non-Compliance List in May 2011. The average daily flow at this facility currently exceeds the design flow and I am concerned that consistent compliance with NPDES limits, particularly loading limits, will be problematic as long as the plant receives high flows during storm events.

Outfall Signage - A sign is required that identifies the location of the permitted outfall to the unnamed tributary to the Olentangy River. Please have this sign posted within the next 30 days and submit a photograph of the sign to this office following installation.

Unauthorized Discharge of Filter Backwash Water – Backwash water from the swimming pool is being discharged to a pond which outlets to an unnamed tributary to the Olentangy River. Please be advised that the discharge of filter backwash water, which contains elevated levels of chlorine and suspended solids, constitutes a violation of Ohio Revised Code 6111.04. Please submit to this office, in writing within 30 days of receipt of this correspondence, a schedule for eliminating the discharge of filter backwash water to waters of the state.

If you have any questions or comments concerning the enclosed inspection report, please contact me at (614) 728-3848 or e-mail at mike.sapp@epa.ohio.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Sapp", with a long horizontal flourish extending to the right.

Michael Sapp
Compliance and Enforcement Unit
Division of Surface Water
Central District Office

c: Mike McLaughlin w/enclosures, Astbury Water Technology
Melissa Adams, Delaware General Health District

ec: Mike Sapp

NPDES Compliance Inspection Report

SECTION A: NATIONAL DATA SYSTEM CODING				
Permit #	NPDES #	Inspection Type	Inspector	Facility Type
4PV00093	OH0081213	RI	S	Semi-Public
Inspection Date	Entry Time	Exit Time	Notice of Violation	Significant Non-Compliance
8/13/2012	1:30 PM	2:45 PM	N	No

SECTION B: FACILITY DATA	
Name and Location of Facility Inspected	Permit Effective Date
Worthington Arms MHP 5277 Columbus Pike Lewis Center, Ohio 43035	8/1/2008
	Permit Expiration Date
	7/31/2013
Name(s) and Title(s) of On-Site Representatives	Phone Numbers
Dave Kelly – Regional Vice President	(248) 208-2615
Mike McLaughlin – Contract Operator, Astbury Water Technology	(937) 776-0989
Name and Title of Responsible Official	Phone Number
David Kelly, Regional Manager	(248) 208-2615

SECTION C: AREAS EVALUATED DURING INSPECTION		
Key: S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated		
M	NPDES Compliance	Absence of outfall signage as required by permit
S	Operations & Maintenance	
S	Facility Site Review	
M	Collection System	Excessive inflow and infiltration
S	Flow Measurement	
M	Receiving Waters	NPDES permit violation
S	Laboratory	

Comments:

Signatures

SUMMARY OF FINDINGS AND COMMENTS

**Worthington Arms Mobile Home Park
4PV00093 - OH0081213**

reatment plant serving Worthington Arms Home Park is located at Lake in Lewis Center, Ohio and has a design treatment capacity of 1.5 MGD. The plant serves approximately 224 pads and a small restaurant. Effluent is discharged to an unnamed tributary to the Olentangy River. Wet weather facilities provided at the facility include a 4,000 gallon trash trap, 15,000 gallon equalization basin, 39,000 gallon extended aeration tank with clarification, fixed film, a tertiary dosing tank, 3-572 ft² tertiary sand filters followed by tertiary clarification. Solids handling consist of a 5,600 gallon sludge holding tank and a sludge dewatering facility. Liquid sludge is hauled to another facility for further treatment.

During the inspection, the following general observations were made with respect to operational practices at the plant:

The trash trap is pumped-out on a monthly basis or more frequently as needed.

The trash trap is equipped with a "T" which is capable of bypassing the flow around the equalization tank during high flow events sending the incoming flow directly to the aeration tanks (this overflow appeared to be utilized during recent rain events).

A concrete block had been placed in the flow equalization splitter box to prevent the flow back to the flow equalization tank (note: the operator indicated that this is necessary since the flow equalization pumps can't handle both the incoming flow and the return flows during rain events).

Mike McLaughlin is currently the Operator of Record. Mike or another operator is at the facility 5 days/week.

The transfer line to the sludge holding tank is broken. Consequently, no sludge is currently supplied to the sludge holding tank. The operator indicated that the line will be repaired or replaced in the near future. A portable pump

- The fixed media clarifiers are drained weekly or as needed during periods of plant upset
 - Air to the aeration tanks is shut off during storm events to try and maintain solids inventories in the plant. The effluent flow meter inactivates the aeration blowers when the influent flows reach 85 gpm.
 - A bypass line is installed from the tertiary dosing tank to the final outfall (the operators suspected that this pipe was installed at an elevation where it would rarely be used). A bucket is placed over the outlet to determine when the bypass is activated.
 - ESG Lab performs all lab analyses except bacteria, DO and pH. Mike McLaughlin analyzes for DO and pH and MASI Labs performs the analysis for fecal coliform bacteria.
2. The plant has made significant improvements with respect to compliance with NPDES permit limits. The frequency and magnitude of NPDES permit violations have decreased to the point where this facility was removed from the Significant Non-compliance list.
 3. The average daily flow from March 2011 – June 2012 was 61,000 gpd. Peak flows during this time period exceeded 200,000 gpd on three occasions. Flows are estimated based on daily readings from an area/velocity of the effluent line. Based on our previous conversations, I am aware that the park has performed camera work in some portions of the collection system, made repairs to several manholes and eliminated a field tile connected to the sanitary system. I am concerned that consistent compliance with NPDES limits, particularly loading limits, will be problematic as long as the average daily flow exceeds the plant design flow.
 4. A temporary influent flow meter was installed at the time of the inspection. The flow meter was installed to help quantify influent flows and assess the possibility of leaks within the plant (e.g. a leak from the pond to the effluent line associated with the wastewater treatment plant). The operator indicated that they may also attempt to drain several tanks to investigate the possibility of groundwater infiltration.
 5. At the time of the inspection, no outfall signage was present at the permitted outfall. Please have the sign installed no later than 30 days following the receipt of this correspondence. The sign must comply with the following requirements:
 - The marker shall consist, at a minimum, of the name of the establishment to which the permit was issued, the Ohio EPA permit number, and the outfall number and a contact telephone number. The information shall be printed in letters not less than two inches in height.

- The marker shall be a minimum of 2 feet by 2 feet and shall be a minimum of 3 feet above ground level. The sign shall not be obstructed such that persons in boats or persons swimming on the river or someone fishing or walking along the shore cannot read the sign. Vegetation shall be periodically removed to keep the sign visible.
7. The plant recently retained the services of a jetter/vac truck to remove accumulations of rags that clogged the transfer ports between the aeration tanks and clarifiers. I would recommend that you explore the possibility of installing some sort of influent bar screen to capture rags and other large items.
 8. Backwash water from the swimming pool is being discharged to a pond which outlets to an unnamed tributary to the Olentangy River. Please be advised that the discharge of filter backwash water, which contains elevated levels of chlorine and suspended solids, constitutes a violation of Ohio Revised Code 6111.04 which reads as follows:

“ No person shall cause pollution or place or cause to be placed any sewage, industrial waste, or other wastes in a location where they cause pollution of any waters of the state...except in such cases where the director of environmental protection has issued a valid and unexpired permit...”

Please submit to this office, in writing within 30 days of receipt of this correspondence, a schedule for eliminating the discharge of filter backwash water to waters of the state. I would recommend that you explore the possibility of redirecting this waste stream to the sanitary sewer system.

Compliance Data for Worthington Arms MHP between 3/1/2011 to 8/1/2012

Summary

Permit Effluent Limit Violations: 5
 Permit Effluent Code Violations: 0
 Permit Effluent Frequency Violations: 0
 Compliance Schedule Violations: 0

Limit Violations						
Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
December 2011	001	Total Suspended Solids	1D Qty	2.66	2.96635	12/5/2011
March 2012	001	Total Suspended Solids	1D Qty	2.66	3.80204	3/1/2012
March 2012	001	Total Suspended Solids	30D Qty	1.77	2.25288	3/1/2012
June 2012	001	Fecal Coliform	30D Conc	1000	2100.	6/1/2012
June 2012	001	Fecal Coliform	7D Conc	2000	2100.	6/22/2012

Flow Data for Worthington Arms MHP between 3/1/2011 and 8/1/2012

	Date	Flows (MGD)
Ten Highest Flows	7/24/2011	0.260
	12/5/2011	0.225
	4/20/2012	0.216
	9/12/2011	0.174
	5/26/2011	0.172
	6/11/2011	0.171
	4/20/2011	0.158
	2/16/2012	0.157
	5/3/2011	0.156
	9/13/2011	0.153
Average Flow Rate		0.061