



Environmental  
Protection Agency

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

April 30, 2012

Locust Ridge Nursing Home  
Attn: Mr. Howard Meeker  
12745 Elm Corner Road  
Williamsburg, OH 45176

**RE: Notice of Violation**  
**Locust Ridge Nursing Home WWTW/ Reconnaissance Inspection**  
**NPDES Permit # OH0137537/OEPA PERMIT # 1PX00059\*CD**

Dear Mr. Meeker:

On April 26, 2012, I conducted an NPDES Reconnaissance Inspection at the Locust Ridge Nursing Home wastewater treatment works (WWTW). Mr. John Van Harlingen (Operator of Record-The H<sub>2</sub>O Company), Chris Biller (nursing home maintenance) and you were present during the inspection. The main purpose of the inspection was to meet with you and discuss a new date for completing construction of the WWTW improvements, as well as the ramifications of failing to meet the new compliance date.

The details of the inspection are provided within the report. Thank you and your staff for the time extended during the inspection process. If you have any questions, please feel free to contact me by phone at (937) 285-6029 or by e-mail at [joshua.jackson@epa.state.oh.us](mailto:joshua.jackson@epa.state.oh.us).

Respectfully,

Joshua Jackson  
Environmental Specialist 2  
Division of Surface Water

JJ/tf

cc: John Van Harlingen, The H<sub>2</sub>O Company

Enclosures



State of Ohio Environmental Protection Agency  
Southwest District Office

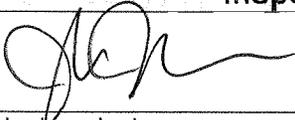
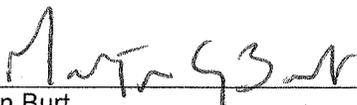
NPDES Compliance Inspection Report

Section A: National Data System Coding					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
1PX00059*CD	OH0137537	4/26/2012	C	S	2

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Locust Ridge Nursing Home WWTW 12745 Elm Corner Road Pike Township, Brown County	1:00 PM	6/30/2011
	Exit Time	Permit Expiration Date
	2:40 PM	7/30/2016
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
John Van Harlingen, ORC Jim Parlier and Chris Biller, Maintenance	937-827-3295 937-444-2920	
Name, Address and Title of Responsible Official	Phone Number	
Howard Meeker, Owner Locust Ridge Nursing Home 12745 Elm Corner Road Williamsburg, OH 45176	937-444-2920	

Section C: Areas Evaluated During Inspection					
(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)					
N	Permit	N	Flow Measurement	N	Pretreatment
N	Records/Reports	N	Laboratory	N	Compliance Schedule
N	Operations & Maintenance	U	Effluent/Receiving Waters	N	Self-Monitoring Program
U	Facility Site Review	N	Sludge Storage/Disposal	N	Other
N	Collection System				

Section D: Summary of Findings (Attach additional sheets if necessary)
See Attached Report.

Inspector	Reviewer
 Joshua Jackson Division of Surface Water Southwest District Office	 Martyn Burt Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office
5-7-2012 Date	5/11/2012 Date

## Inspection Findings

The purpose of the inspection was to discuss the compliance issues at the wastewater treatment works (WWTW) serving Locust Ridge Nursing Home and to inquire about the delays in the WWTW improvement project

### History of Non-Compliance

- In 2008 and 2009, Ohio EPA performed compliance evaluation inspections of the Locust Ridge Nursing Home WWTW. The subsequent reports noted multiple effluent violations and physical deficiencies at the WWTW.
- The 2009 Compliance Inspection Report required the ownership of the Locust Ridge Nursing Home to contract with an independent professional engineer to prepare a Plan of Action for the WWTW (path to return to compliance). The Plan of Action was required to be submitted to the Ohio EPA Southwest District Office no later than December 17, 2009.
- A Plan of Action was submitted on March 12, 2010 (and subsequent information on June 3, 2010). This document provided a recommended alternative for improvements to the WWTW. The document did not provide a schedule for critical dates, so Ohio EPA provided these dates to the engineer and the contract operator through an electronic mail dated June 15, 2010. The dates were as follows:

August 2, 2010 - Submit applications (NPDES and PTI) and detailed plans to Ohio EPA for the Locust Ridge Nursing Home WWTW improvements;  
October 15, 2010 - Begin construction of the approved improvements to the WWTW;  
February 1, 2011 - End construction of the approved improvements to the WWTW and attain operational compliance with the NPDES permit.

- Detailed plans for the WWTW improvements (PTI and NPDES applications) were not received until September 2, 2010.
- Ohio EPA approved the detailed plans on November 1, 2010. The improvements consisted of the following:

The average daily design flow of the existing WWTW is 16,000 gallons/day (serves 100-bed facility). Since historical water use records show a working range of the 3,800-6,100 gallons/day, ownership reduced the average daily design flow of the WWTW to 10,000 gallons/day (the resident capacity of the nursing home has also been permanently reduced to 60). The NPDES permit was modified to reflect the changes.

The existing 16,000-gallon steel package aeration system will be divided to provide 5,000 gallons for equalization (with two new 130 gpm dosing pumps at 15 feet TDH). A 2,000-gallon sludge holding tank will be a component in the system as well. The top 2-3 feet of the entire steel plant will be removed and replaced with new metal. New blowers, plant piping, baffles, weirs, grating and air lifts will be provided as well as cathodic protection.

An ultraviolet disinfection system will replace the existing chlorination/dechlorination system. The UV system is rated for 10 gallons/minute and consists of 1 module (1 lamp) with a minimum design dosage of 30,000 microwatts/square centimeter/second.

One of the two existing slow surface sand filters will be rebuilt with new media and underground piping. Two new sand filter dosing pumps will be installed as well. Elapsed time meters will be installed on the sand filter dosing pumps in order to be able to measure daily discharge flows.

Each of the existing tanks (clarifier, aeration tank, sludge holding tank, trash trap, sand filter dosing tank, etc.) will be tested for water tightness. Water testing will be conducted by sealing the inlets and outlets, filling the tank to its operational level, and allowing the tank to stand for at least 8 hours. If there is a measurable loss (2 inches or more), the tank will be refilled and the water will need to stand for another 8 hours. If there is a measurable loss (again), the tank will be rejected and replaced with a new tank.

- According to an electronic mail sent by the contract operator (John Van Harlingen) on April 22, 2011, construction had not started on the WWTW improvements.
- Once inquired about a new date to start construction, Mr. Meeker provided a letter (dated October 19, 2011) stating that construction would be completed by December 1, 2011.
- In a follow-up email, Mr. Meeker's daughter (Yolanda Meeker) wrote that the new date for completing construction at the WWTW was now the end of January, 2012 (according to Mr. Meeker).
- At the time of this inspection, it appeared that the only completed construction work was improvements to the concrete block walls on one of the slow surface sand filters. Partially treated sewage was seeping through the new blocks and flowing onto the remaining sand filter and onto the surrounding grounds.

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Significant Non-Compliance

**Locust Ridge Nursing Home WWTW  
 EFFLUENT LIMIT VIOLATIONS  
 (Period of Review: January 2010 – August 2010)**

7D = Weekly 30D = Monthly 1D = Daily  
 Conc. = Concentration (mg/l) Qty.= Quantity (Kg/Day)

Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value
May 2011	001	Total Suspended Solids	30D Conc	12	19.
May 2011	001	Total Suspended Solids	7D Conc	18	19.
May 2011	001	Nitrogen, Ammonia (NH3	30D Conc	1.0	1.57
May 2011	001	Nitrogen, Ammonia (NH3	7D Conc	1.5	1.57
May 2011	001	Chlorine, Total Residu	1D Conc	0.019	.07
May 2011	001	Chlorine, Total Residu	1D Conc	0.019	.05
June 2011	001	Total Suspended Solids	30D Conc	12	15.
June 2011	001	Nitrogen, Ammonia (NH3	30D Conc	1.0	5.67
June 2011	001	Nitrogen, Ammonia (NH3	7D Conc	1.5	5.67
June 2011	001	Nitrogen, Ammonia (NH3	30D Qty	0.0379	.05945
June 2011	001	Nitrogen, Ammonia (NH3	7D Qty	0.0568	.05945
July 2011	001	Nitrogen, Ammonia (NH3	30D Conc	1.0	3.23
July 2011	001	Nitrogen, Ammonia (NH3	7D Conc	1.5	3.23
August 2011	001	Nitrogen, Ammonia (NH3	30D Conc	1.0	3.3
August 2011	001	Nitrogen, Ammonia (NH3	7D Conc	1.5	3.3
August 2011	001	Dissolved Oxygen	1D Conc	6.0	5.8
August 2011	001	E. coli	30D Conc	161	3100.
August 2011	001	E. coli	7D Conc	362	3100.
September 2011	001	Total Suspended Solids	30D Conc	12	24.
September 2011	001	Total Suspended Solids	7D Conc	18	24.
September 2011	001	Nitrogen, Ammonia (NH3	30D Conc	1.0	12.2
September 2011	001	Nitrogen, Ammonia (NH3	7D Conc	1.5	12.2
September 2011	001	Nitrogen, Ammonia (NH3	30D Qty	0.0379	.13438
September 2011	001	Nitrogen, Ammonia (NH3	7D Qty	0.0568	.13438
September 2011	001	E. coli	30D Conc	161	2300.
September 2011	001	E. coli	7D Conc	362	2300.
September 2011	001	Dissolved Oxygen	1D Conc	6.0	5.49
October 2011	001	Nitrogen, Ammonia (NH3	30D Conc	1.0	5.14
October 2011	001	Nitrogen, Ammonia (NH3	7D Conc	1.5	5.14
October 2011	001	Nitrogen, Ammonia (NH3	30D Qty	0.0379	.06498
October 2011	001	Nitrogen, Ammonia (NH3	7D Qty	0.0568	.06498
October 2011	001	E. coli	30D Conc	161	2900.
October 2011	001	E. coli	7D Conc	362	2900.
December 2011	001	Total Suspended Solids	30D Conc	12	105.
December 2011	001	Total Suspended Solids	7D Conc	18	105.
December 2011	001	Total Suspended Solids	30D Qty	0.455	1.14856
December 2011	001	Total Suspended Solids	7D Qty	0.682	1.14856

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December 2011	001	CBOD 5 day	30D Conc	10	20.9
December 2011	001	CBOD 5 day	7D Conc	15	20.9
February 2012	001	Total Suspended Solids	30D Conc	12	18.

The Locust Ridge Nursing Home has reported effluent violations at the WWTW for several years. As depicted in the chart above, the WWTW is in significant non-compliance.

#### Enforcement Meeting

Attendees: Howard Meeker – Owner of Locust Ridge Nursing Home  
John Van Harlingen – WWTW Operator of Record (contract)  
Chris Biller – Maintenance  
Joshua Jackson – Ohio EPA

During the meeting I explained to Mr. Meeker that the number and severity of effluent violations at the WWTW require immediate action. Since ownership has not displayed any urgency in initiating the WWTW improvement project, Ohio EPA Southwest District Office is prepared to recommend enforcement action if construction is not completed in the near future.

Mr. Meeker and I both agreed that June 22, 2012, is sufficient time to complete a project of this size and scope. He stated that other than a welder completing a portion of the project, his maintenance staff will perform most of the work. (It is worth noting that if the maintenance staff is stretched too thin, contractors should be hired to finish the project).

Before work begins, a septage hauler will be utilized to pump heavy solids off the bottom of the aeration/clarifier tanks (2-3 loads). Once that is completed, the remaining liquid will be conveyed to a geotextile woven bag, which will be placed in the middle of a farm field. Since the WWTW cannot be utilized during the construction process, raw sewage will be chlorinated, injected with polymer and pumped to the geotextile bag. The filtrate from the bag will flow overland (approximately 25-40 yards) toward the receiving stream. Mr. Van Harlingen will sample the filtrate as part of the NPDES-required effluent sampling during the construction process. Temporary fencing shall be installed around the geotextile bag and the filtrate flow path in order to restrict access for livestock.