

Ohio

**Environmental
Protection Agency**

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director



1PX0005920080806

BROWN

LOCUST RIDGE NURSING HOME INC

JACKSON, JOSHUA 2008/08/06



State of Ohio Environmental Protection Agency

Southwest District Office

401 East Fifth Street
Dayton, Ohio 45402-2911

TELE: (937) 285-6357 FAX: (937) 285-6249
www.epa.state.oh.us

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director

August 6, 2008

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

**RE: Locust Ridge Nursing Home WWTW/CEI Report
NPDES Permit No. OH0137537 / OEPA PERMIT NO. 1PX00059*AD
Notice of Violation**

Dear Mr. Meeker:

On July 31, 2008, I conducted an NPDES Compliance Evaluation Inspection at the Locust Ridge Nursing Home wastewater treatment works (WWTW). John Van Harlingen (contract operator), Jim Parlier and Kevin Mason (Maintenance) were present during the inspection. The purpose of the inspection was to evaluate compliance with the terms and conditions of the NPDES Permit.

A copy of the Compliance Evaluation Inspection report is enclosed. **Please pay close attention to the "Items Requiring Correction" marked in bold type for there are compliance schedules associated with these.**

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.

Respectfully,

Joshua Jackson
Environmental Specialist II
Division of Surface Water

Cc: John Van Harlingen, H2O Company
Steve Dick, Brown County Health Department

Enclosures





Permit #: 1PX00059*AD
 NPDES #: OH0137537

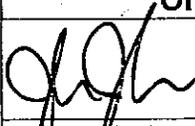
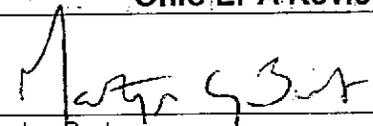


State of Ohio Environmental Protection Agency
 Southwest District Office

NPDES Compliance Inspection Report
 Semi-Public Sewage Disposal Inspection Form

Section A: National Data System Coding					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
1PX00059*AD	OH0137537	7/31/2008	C	S	1

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Locust Ridge Nursing Home 12745 Elm Corner Road Williamsburg, Brown County	3:00 p.m.	7/1/2006
	Exit Time	Permit Expiration Date
	4:15 p.m.	6/30/2011
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Jim Parlier, Maintenance Kevin Mason, Maintenance	937-444-2920	
Name(s), Address and Title(s) of Operator of Record	Phone Number(s)	
John Van Harlingen, The H2O Company	513-827-3295	
Name, Address and Title of Responsible Official	Phone Number	
Howard Meeker, Owner 12745 Elm Corner Road Williamsburg, OH 45176	937-444-2920	

Ohio EPA Inspector	Ohio EPA Reviewer
 Joshua Jackson Division of Surface Water Southwest District Office	 Martyn Burt Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office
Date 8-6-08	Date 8/7/08

Permit # : 1PX00059*AD
 NPDES # : OH0137537

Average Daily Design Flow:	16,000 Gallons/Day
Plant Serves:	Nursing Home
Average Daily Flow: (Period of Review):	4,500 Gallons/Day (7/1/2007 through 6/31/2008)
Method of flow monitoring:	Water Meter Readings
Type of alarms for plant:	None

Pretreatment

Type of Pretreatment: **Trash Trap**
 Does the Trash Trap need pumped: **No**
 Maintenance of pretreatment components is: **Fair**

Comments/Status:

According to facility staff, the trash trap and grease trap for the facility was pumped out the week prior to the inspection

**Secondary Treatment
(Aeration)**

Color of sludge: **Light Brown**
 Quality of Sludge: **Thin**
 Foam: **Light (white)**
 Odor: **Slight**

	Yes	No		Yes	No
Aeration is taking place	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Plant is septic	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Blowers are operating	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Blowers are on a timer	<input type="checkbox"/>	<input type="checkbox"/>
Skimmers are operating	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Plant is flooded	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Diffusers are operating	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Grating is present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sludge return is operating	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Maintenance of aerating equipment is...**Fair**

Comments/Status:

According to facility staff, the WWTW was recently hydraulically overloaded which pushed solids from the clarifier to the slow surface sand filters. The mixed liquor in the aeration tanks was thin.

**Secondary Treatment
(Settling)**

Clarity: **Solids Present**
 Condition of Weir: **Excessive Algae/Solids Build Up**
 Weir is level: **Yes**

Permit # : 1PX00059*AD
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Effluent in weir: **Light Solids**
 Clarifier walls need scraped: **No**

Overall maintenance of settling components is: **Fair**

Comments/Status:

There are no weirs left on the weir plate for they have corroded away. The clarifier had large amounts of pin floc and transparency was only a few inches.

Tertiary Treatment

	Yes	No		Yes	No
Surface sand Filters: Slow	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Subsurface	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Distribution box operating	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Beds alternated	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Are filters ponding/flooding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Beds raked	<input type="checkbox"/>	<input type="checkbox"/>
Sand filters overgrown	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Chlorination present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
UV present	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Dechlorination present	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Overall maintenance of components is: **Poor**

Comments/Status:

Since the plant was hydraulically overloaded, a large amount of black solids was present on one of the sand filters and the other filter was ponded at the time of the inspection.

Plant Discharge

Discharge point is a: **Ditch**
 Name of discharge point: **Unnamed tributary of Light Run**
 Discharge is visible: **Yes** Quality of Effluent: **Cloudy**

Comments/Status:

Inspection Findings

The Locust Ridge Nursing Home wastewater treatment works was designed and approved to treat 16,000 gallons/day. A review of discharge monitoring reports for July 2007 through June 2008 shows an average daily discharge flow of 4,500 gallons per day. These flow readings were obtained from the facility's water meter and reported by maintenance personnel.

The following effluent violations were reported for the same period of review:

(Period of Review: July 2007 – June 2008)

Permit # : 1PX00059*AD
 NPDES # : OH0137537

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

Reporting Period	Parameter	Limit Type	Limit	Reported Value
July 2007	Chlorine, Total Residual	1D Conc	0.019	.09
July 2007	Dissolved Oxygen	1D Conc	6.0	3.4
July 2007	Chlorine, Total Residual	1D Conc	0.019	.1
July 2007	Dissolved Oxygen	1D Conc	6.0	4.04
July 2007	Chlorine, Total Residual	1D Conc	0.019	.08
July 2007	pH	1D Conc	6.5	6.04
July 2007	Dissolved Oxygen	1D Conc	6.0	4.49
July 2007	Chlorine, Total Residual	1D Conc	0.019	.07
July 2007	Dissolved Oxygen	1D Conc	6.0	4.65
July 2007	Chlorine, Total Residual	1D Conc	0.019	.1
September 2007	Chlorine, Total Residual	1D Conc	0.019	.05
September 2007	Dissolved Oxygen	1D Conc	6.0	3.71
September 2007	Chlorine, Total Residual	1D Conc	0.019	.06
September 2007	Dissolved Oxygen	1D Conc	6.0	3.
September 2007	Dissolved Oxygen	1D Conc	6.0	1.4
September 2007	Dissolved Oxygen	1D Conc	6.0	2.2
October 2007	Nitrogen, Ammonia (NH3)	30D Conc	1.0	5.34
October 2007	Nitrogen, Ammonia (NH3)	7D Conc	1.5	5.51
October 2007	Nitrogen, Ammonia (NH3)	30D Qty	0.0606	.08085
October 2007	Dissolved Oxygen	1D Conc	6.0	2.7
October 2007	Nitrogen, Ammonia (NH3)	7D Conc	1.5	9.88
October 2007	Nitrogen, Ammonia (NH3)	7D Qty	0.0909	.14958
October 2007	Dissolved Oxygen	1D Conc	6.0	1.8
October 2007	Dissolved Oxygen	1D Conc	6.0	2.45
October 2007	Dissolved Oxygen	1D Conc	6.0	3.
October 2007	Dissolved Oxygen	1D Conc	6.0	3.45
November 2007	Dissolved Oxygen	1D Conc	6.0	5.33
November 2007	Dissolved Oxygen	1D Conc	6.0	5.56
December 2007	Total Suspended Solids	30D Conc	12	43.
December 2007	Total Suspended Solids	7D Conc	18	86.
December 2007	Total Suspended Solids	7D Qty	1.1	1.30204
April 2008	Total Suspended Solids	30D Conc	12	18.
April 2008	Total Suspended Solids	7D Conc	18	22.
May 2008	Chlorine, Total Residual	1D Conc	0.019	.07
May 2008	Dissolved Oxygen	1D Conc	6.0	2.6
May 2008	Dissolved Oxygen	1D Conc	6.0	5.5
June 2008	Total Suspended Solids	30D Conc	12	20.
June 2008	Total Suspended Solids	7D Conc	18	20.
June 2008	Nitrogen, Ammonia (NH3)	30D Conc	1.0	1.59
June 2008	Nitrogen, Ammonia (NH3)	7D Conc	1.5	1.59
June 2008	Fecal Coliform	30D Conc	1000	1100.
June 2008	Chlorine, Total Residual	1D Conc	0.019	.13

Items Noted During the Inspection (**Items for Correction in Bold Type**)

1. One sand filter was ponded with clarifer effluent and the other had large quantities of black sludge covering the sand. Facility staff noted that larger than normal flows had been received in the past two weeks due to broken water fixtures (toilets running) and that the maintenance man had been in the hospital; so no one was available to fix them. With increased influent flows, the WWTW has apparently experienced a solids wash out. The mixed liquor was thin at the time of the inspection, and the clarifier was not effectively settling solids.
Effluent data suggests that this facility consistently has suspended solids violations, but the CBOD5 and nitrogen-ammonia values remain somewhat low. This may suggest that the sand filter media (recently replaced) contains a significant amount of fines.
Locust Ridge Nursing Home personnel must clean out the sand filter beds and replace the media with "clean" concrete sand. This work shall be completed by August 21, 2008.
2. As you can see by the violation chart shown above, this facility has incurred numerous violations of the NPDES permit since it became effective last year. After inspecting the facility, it is obvious that this WWTW is old and corroded (steel tank and components). **If violations continue at the WWTW this office will pursue enforcement action against Locust Ridge Nursing Home and require extensive upgrades. These enforcement actions typically include monetary penalties.**
3. **Locust Ridge Nursing Home shall perform periodic check of all water fixtures to prevent small water leaks from getting worse. If maintenance personnel are not available for repairing a major leak, a plumber should be contacted. A solids wash out, such as the one that recently occurred at the WWTW, is preventable.**

