



State of Ohio Environmental Protection Agency

**Southwest District Office**

401 E. Fifth St.  
Dayton, Ohio 45402

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

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

September 28, 2009

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

**Certified Letter**

**RE: Notice of Violation  
Locust Ridge Nursing Home WWTW/ Compliance Evaluation Inspection  
NPDES Permit No. OH0137537/OEPA PERMIT NO. 1PX00059\*AD**

Dear Mr. Meeker:

On September 23, 2009, Joshua Jackson conducted an NPDES Compliance Evaluation 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) and Jim Parlier (nursing home maintenance) represented the facility during the inspection.

Since the NPDES permit was issued for Locust Ridge Nursing Home WWTW in 2006, this facility has incurred numerous effluent limit violations. These violations have been documented in several Notices of Violation and inspection report; yet the violations have continued. It seems apparent that the current WWTW, built over 30 years ago, cannot meet today's technology standards.

**Locust Ridge Nursing Home shall hire an independent engineering firm to prepare a "Plan of Action" for bringing the WWTW into compliance with the NPDES permit. This will, undoubtedly, include recommendations for replacing the existing WWTW with a new system; although some existing components could possibly be utilized. The "Plan of Action" shall be submitted to the Ohio EPA Southwest District Office no later than December 17, 2009, and shall include (but not be limited to) the following:**

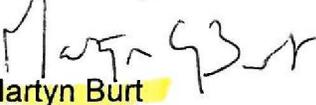
1. Provide alternatives for achieving compliance with the NPDES permit. This should include a full evaluation of the influent flows and waste stream concentrations. It should also examine a number of different wastewater treatment technologies that would provide compliance with the discharge permit and allow operational flexibility (especially since this a small facility). All of the alternatives must be accompanied by cost effectiveness evaluations.
2. Select preferred alternative for implementation.

3. A proposed schedule for implementing the preferred alternative. This schedule shall include (but not limited to) the following: submittal for regulatory review, advertise bids, award bid, begin construction, end construction, operational attainment.

**At this point Ohio EPA is weighing whether a formal enforcement action is needed. Developing administrative orders can be an arduous negotiating process for both sides and typically end up with the permittee paying monetary penalties. It would certainly improve the case for Locust Ridge Nursing Home ownership, if compliance with the schedule shown above was achieved and quick action was made toward improving the WWTW.**

Thank you and your staff for the time extended during the inspection process. If you have any questions, please feel free to contact Mr. Jackson 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,



Martyn Burt

Compliance & Enforcement Supervisor  
Division of Surface Water

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

Enclosures

Permit #: 1PX00059 AD  
 NPDES #: OH0137537

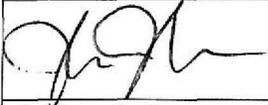


State of Ohio Environmental Protection Agency  
 Southwest District Office

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	9/23/2009	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 p.m.	7/1/2006
	Exit Time	Permit Expiration Date
	2:30 p.m.	6/30/2011
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Jim Parlier, 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 Locust Ridge Nursing Home 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 9-28-09	Date

Average Daily Design Flow:	<b>16,000 Gallons/Day</b>
Plant Serves:	nursing home patients/staff
Average Daily Flow: (Period of Review):	<b>6,000 Gallons/Day (October 2008 - August 2009)</b>
Method of flow monitoring:	<b>Water Meter Readings (taken monthly)</b>
Type of alarms for plant:	<b>None</b>

**Pretreatment**

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

**Comments/Status:**

Last pumped out 10 days prior to the inspection. According to staff, this is pumped out every 2-3 months.

**Secondary Treatment  
(Aeration)**

Color of sludge: **Light Brown**  
 Quality of Sludge: **Thin**  
 Foam: **None present**  
 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 checked="" 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:**

The D.O. in the aeration basin was 0.3 mg/l on 9-21-2009 with one blower operating. The D.O. should be at least 2.0 mg/l when the blowers are operating. One of the blowers appear to be undersized for what was approved for this wastewater treatment works.

**Secondary Treatment  
(Settling)**

Clarity: **Cloudy**  
 Condition of Weir: **teeth on weir have rusted out.**  
 Effluent in weir: **Light Solids**  
 Clarifier walls need scraped: **Yes**

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

**Comments/Status:**

The clarifier was cloudy and discharging fine solids. The activated sludge is not producing good settleable solids.

**Tertiary Treatment**

	Yes	No		Yes	No
Surface sand Filters: <b>Slow</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Subsurface</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Distribution box operating	<input type="checkbox"/>	<input checked="" 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 checked="" 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:**

One of the sand filters was ponded with a lot of solids and algae. It looked more like a sludge drying bed. Chlorine tablets are put into a dispenser located in the sand filter dosing chamber. Dechlor tablets are dispensed in the post aeration basin.

**Sludge Handling/Storage Disposal**

Hauler name: Barber Septic

Disposal Site:

Sludge wasted from: Aeration tank

How often is sludge wasted: ?

Sludge drying beds: **No**                      Sludge holding tank: **No**

Overall maintenance of components is: **Poor**

**Comments/Status:**

It appears that solids are lost to the sand filters a good portion of the time. There may be high flow periods that wash the solids out of the wastewater treatment works.

**Plant Discharge**

Discharge point is a: **Cow pasture to a drainage swale to Light Run**

Discharge is visible: **Yes**                      Quality of Effluent: **Cloudy**

**Comments/Status:**

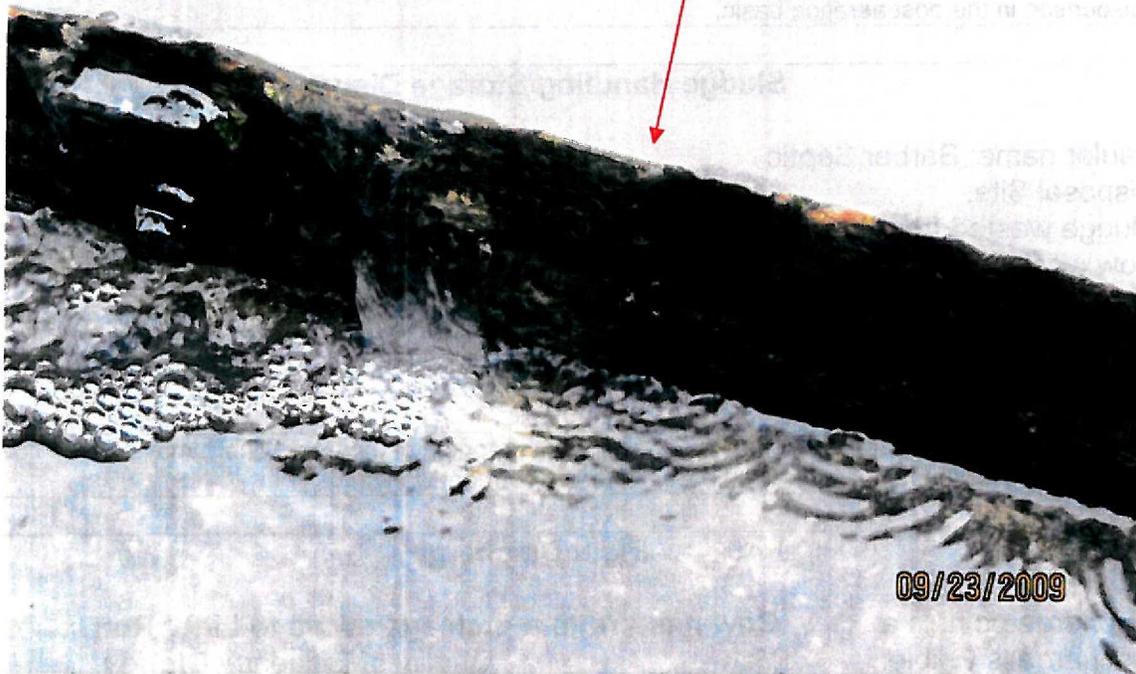
The effluent was very cloudy with mild foam. The discharge settled in a low point in the cow pasture and there were tubifex worms present; mostly due to low dissolved oxygen in the settling area. It was obvious that cattle have access to this area. Water then overflowed this settling area through the field into Light Run. The waster flowing into Light Run was cloudy as well.

### Inspection Findings

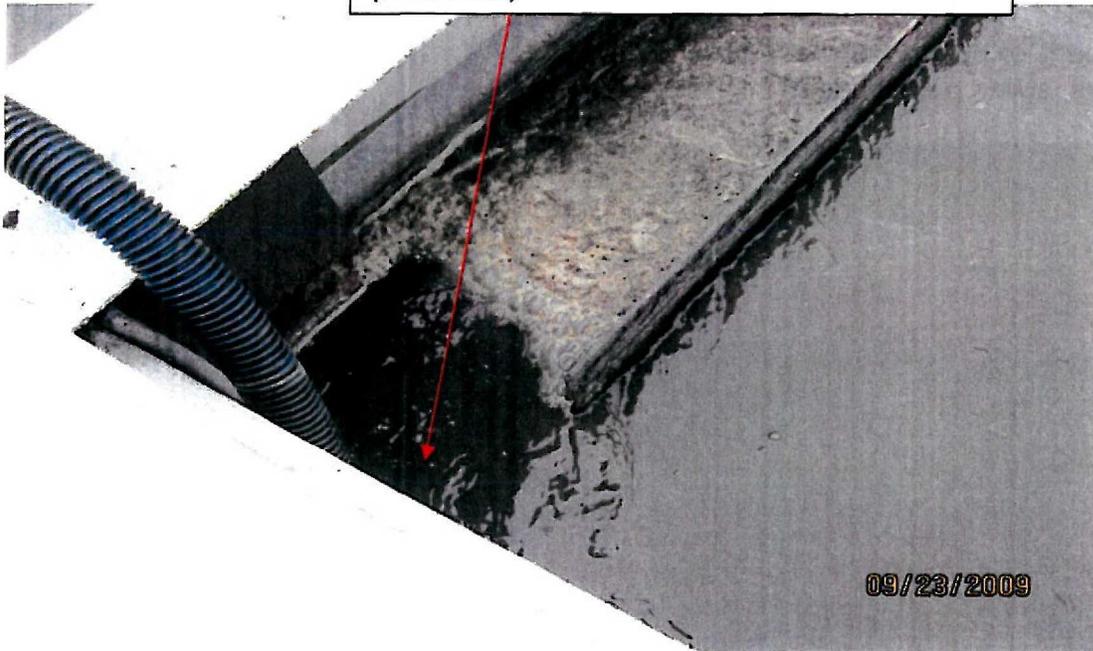
Since the NPDES permit for the Locust Ridge Nursing Home wastewater treatment works (WWTW) became effective on July 1, 2006, the facility has accumulated numerous effluent limit violations.

The latest upgrade for the facility was in 1976, when the WWTW capacity was expanded to 16,000 gallons/day. After 33 years, it is obvious that this plant has passed its design life. As documented during the previous inspection in 2008 and this most recent inspection, the infrastructure of the steel plant is rusting out; including the walls, grating, baffles and effluent weir.

No v-notches left on the effluent weir (rusted out)



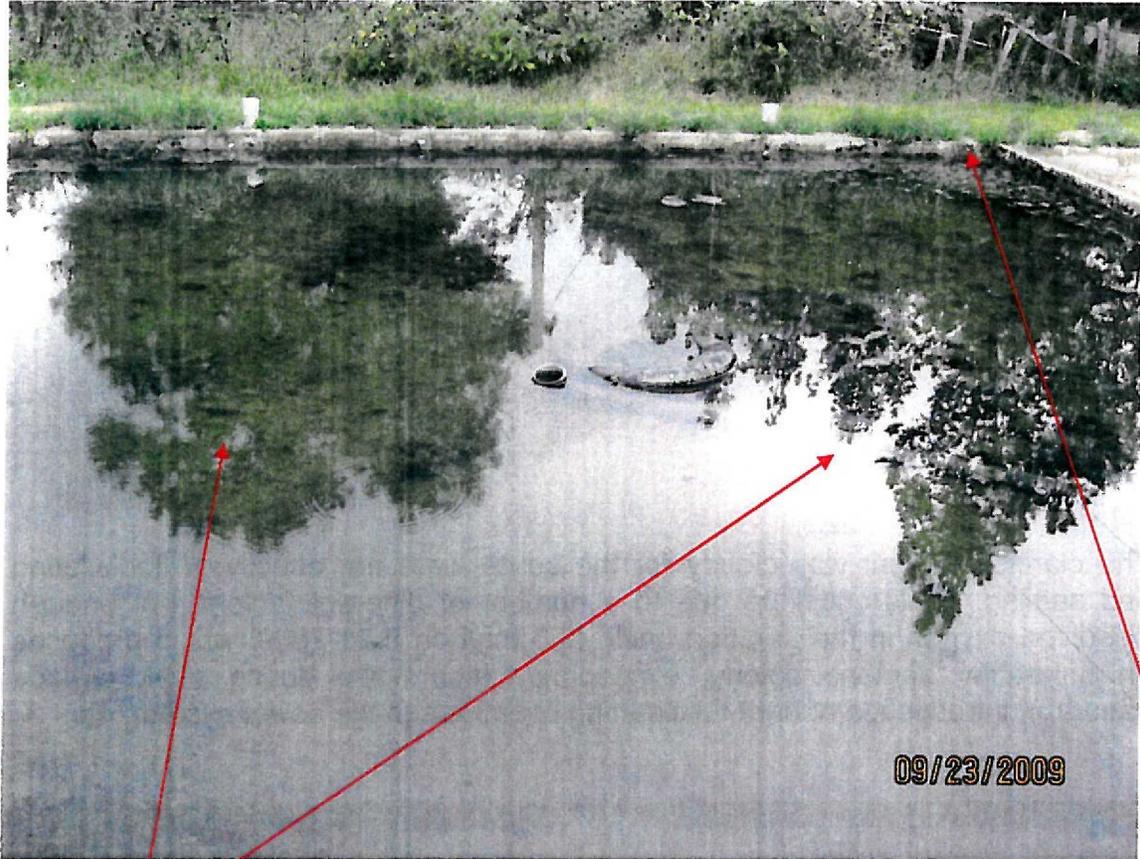
Section of baffle missing in the aeration basin  
(rusted out)



The clarifier effluent was cloudy for the solids were not effectively flocculating and settling. This could be due to a number of different factors: not enough dissolved oxygen in the aeration basin (0.3 mg/l on 9-21-2009) which produces an unhealthy bacteria colony, exceedingly high flows during peak periods (laundry), introduction of harmful cleaning chemicals in the sewer system, etc.



There have been many documented instances of slow surface sand filter ponding. Maintenance staff are constantly cleaning the filters out because of the amount of solids that pass through the WWTW. Even with slow surface sand filters, solids pass through into the effluent.



**Large deposits of solids and algae in the sand filters**

**Concrete block walls are corroding. There have been attempts to patch the walls with mortar**

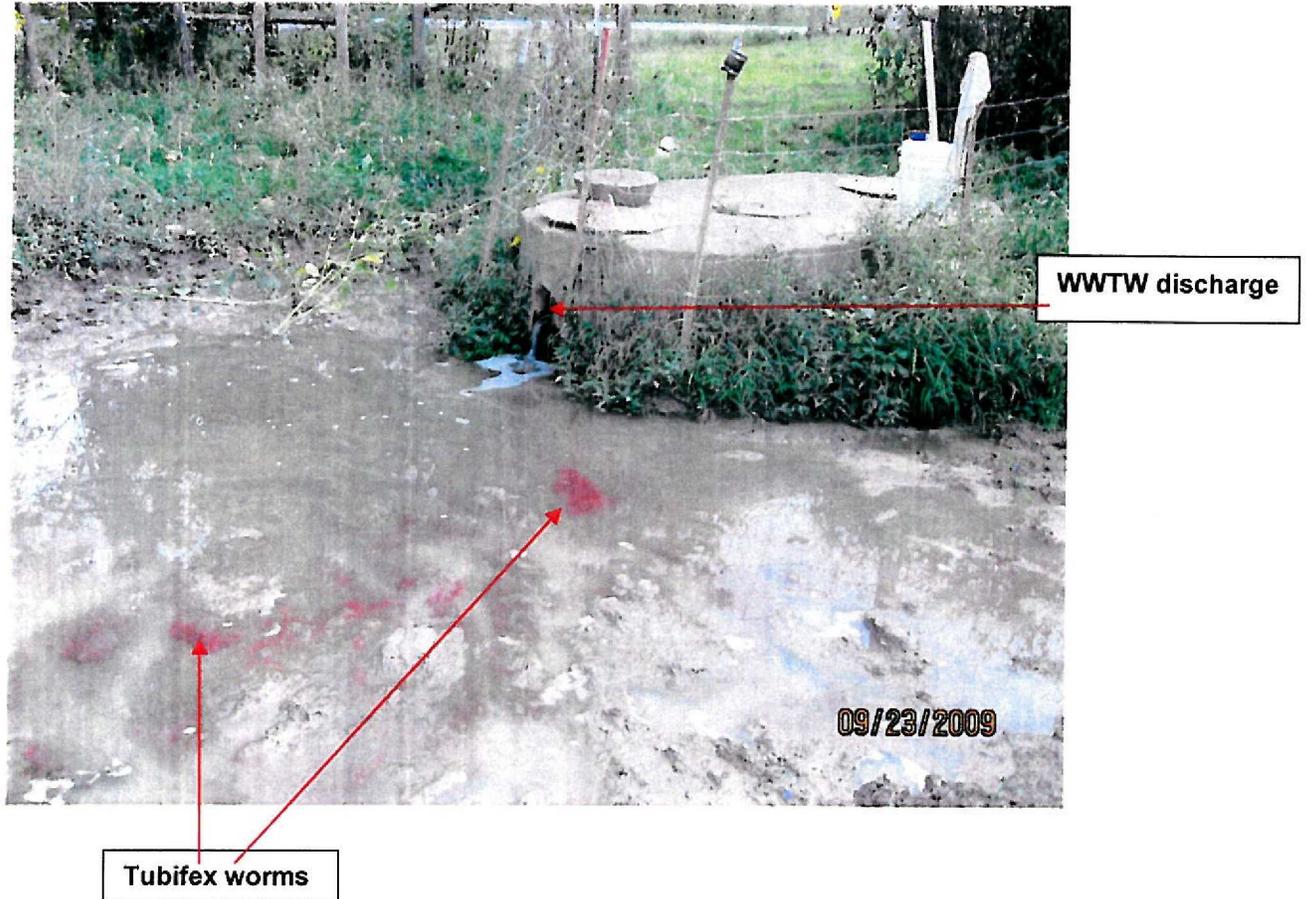
Permit # : 1PX0005 AD  
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Used sand/sludge that had been raked off the sand filters was placed all around the sand filter walls. This material is unsanitary and should be placed in a dumpster for disposal at a mixed solid waste landfill. Please make the appropriate changes in protocol without delay.



Permit # : 1PX00059\*AD  
NPDES # : OH0137537

The discharge from the post-aeration/dechlorination basin is to a settling area, where cattle have access. The overflow from this area runs through the field before discharging to Light Run. There were tubifex worms in the settling area because of the low dissolved oxygen environment. The discharge into Light Run was cloudy.



Operator of Record

The log book for the operator of record is stored in the nursing home office, which is located on the same property as the WWTW. Mr. Van Harlingen faxes datasheets (containing notes/effluent data) to the office after he makes a site visit. The following corrections should be made:

1. A copy of Mr. Van Harlingen's WW operator certificate shall be hung on a wall in the administrative office.
2. Mr. Van Harlingen's exact time, on the WWTW grounds, shall be documented in the log book.
3. An "Operator of Record Notification Form" is required to be completed and submitted to Ohio EPA (required by Ohio Administrative Code 3745-07). **I have attached this form to be completed and submitted by no later than October 15, 2009.**

When the NPDES permit for Locust Ridge Nursing Home is renewed, the operator of record will be required to be on-site 2 days per week for a total of 1 hour (as this WWTW should be reclassified as a class A wastewater treatment works).

Enforcement

In the inspection report documenting the compliance evaluation inspection performed on July 31, 2008, this office stated that Ohio EPA would pursue an enforcement case against Locust Ridge Nursing Home if compliance with the NPDES permit was not attained. As you can see from the effluent violations reported by Locust Ridge since that inspection, compliance has not been achieved.

(Period of Review: July 2008 – August 2009)

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

Reporting Period	Parameter	Limit Type	Limit	Reported Value
July 2008	Total Suspended Solids	30D Conc	12	18.75
July 2008	Total Suspended Solids	7D Conc	18	22.5
August 2008	Total Suspended Solids	30D Conc	12	16.35
August 2008	Nitrogen, Ammonia (NH3)	30D Conc	1.0	2.98
August 2008	Nitrogen, Ammonia (NH3)	7D Conc	1.5	4.49
August 2008	Nitrogen, Ammonia (NH3)	30D Qty	0.0606	.06768
August 2008	Nitrogen, Ammonia (NH3)	7D Qty	0.0909	.10197
August 2008	Fecal Coliform	7D Conc	2000	3380.
September 2008	Total Suspended Solids	30D Conc	12	34.
September 2008	Total Suspended Solids	7D Conc	18	34.

September 2008	Total Suspended Solids	30D Qty	0.727	.77214
September 2008	Chlorine, Total Residu	1D Conc	0.019	.05
September 2008	Chlorine, Total Residu	1D Conc	0.019	.07
October 2008	Total Suspended Solids	30D Conc	12	17.25
October 2008	Fecal Coliform	30D Conc	1000	2629.37
October 2008	Total Suspended Solids	7D Conc	18	20.
October 2008	Fecal Coliform	7D Conc	2000	5960.
December 2008	Total Suspended Solids	30D Conc	12	16.
December 2008	Total Suspended Solids	7D Conc	18	24.
February 2009	CBOD 5 day	30D Conc	10	23.1
February 2009	CBOD 5 day	7D Conc	15	23.1
March 2009	Total Suspended Solids	30D Conc	12	50.
March 2009	Total Suspended Solids	7D Conc	18	50.
March 2009	Total Suspended Solids	30D Qty	0.727	.757
March 2009	Total Suspended Solids	7D Conc	18	50.
April 2009	Total Suspended Solids	30D Conc	12	27.35
April 2009	Total Suspended Solids	7D Conc	18	30.
April 2009	Total Suspended Solids	7D Conc	18	24.7
May 2009	Total Suspended Solids	30D Conc	12	16.
June 2009	Chlorine, Total Residu	1D Conc	0.019	.05
July 2009	Nitrogen, Ammonia (NH3	30D Conc	1.0	13.7
July 2009	Nitrogen, Ammonia (NH3	30D Qty	0.0606	.25927
July 2009	Fecal Coliform	30D Conc	1000	41000.
July 2009	CBOD 5 day	30D Conc	10	26.7
July 2009	Chlorine, Total Residu	1D Conc	0.019	.1
July 2009	Dissolved Oxygen	1D Conc	6.0	.15
July 2009	Dissolved Oxygen	1D Conc	6.0	2.5
July 2009	Nitrogen, Ammonia (NH3	7D Conc	1.5	13.7
July 2009	Nitrogen, Ammonia (NH3	7D Qty	0.0909	.25927
July 2009	Fecal Coliform	7D Conc	2000	41000.
July 2009	CBOD 5 day	7D Conc	15	26.7
July 2009	Dissolved Oxygen	1D Conc	6.0	4.85
August 2009	Nitrogen, Ammonia (NH3	30D Conc	1.0	6.76
August 2009	Nitrogen, Ammonia (NH3	30D Qty	0.0606	.12793
August 2009	Fecal Coliform	30D Conc	1000	61600.
August 2009	Nitrogen, Ammonia (NH3	7D Conc	1.5	6.76
August 2009	Nitrogen, Ammonia (NH3	7D Qty	0.0909	.12793
August 2009	Fecal Coliform	7D Conc	2000	61600.

**Locust Ridge Nursing Home shall hire an independent engineering firm to prepare a "Plan of Action" for bringing the WWTW into compliance with the NPDES permit. This will, undoubtedly, include recommendations for replacing the existing WWTW with a new system; although some existing components could possibly be utilized. The "Plan of Action" shall be submitted to the Ohio EPA Southwest District Office no later than December 17, 2009, and shall include (but not be limited to) the following:**

1. Provide alternatives for achieving compliance with the NPDES permit. This should include a full evaluation of the influent flows and waste stream concentrations. It should also examine a number of different wastewater treatment technologies that would provide compliance with the discharge permit and allow operational flexibility (especially since this a small facility).  
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**At this point Ohio EPA is weighing whether a formal enforcement action is needed. Developing administrative orders can be an arduous negotiating process for both sides and typically end up with the permittee paying monetary penalties. It would certainly improve the case for Locust Ridge Nursing Home ownership, if compliance with the schedule shown above was achieved and quick action was made toward improving the WWTW.**



### Operator of Record (ORC) Notification Form

Ohio Environmental Protection Agency  
 Division of Drinking and Ground Waters  
 Operator Certification Unit  
 50 West Town St, Suite 700  
 P.O. Box 1049  
 Columbus, OH 43216-1049

Phone: (614) 644-2752  
 1- 866 - 411-OPCT (6728)  
 Fax: (614) 644-2909  
 email: opcert@epa.state.oh.us  
 website: www.epa.state.oh.us/ddagw/opcert.html

#### I. SYSTEM INFORMATION

Name of System: \_\_\_\_\_ Phone Number: \_\_\_\_\_

PWS ID/NPDES Permit #: \_\_\_\_\_ STU # \_\_\_\_\_ Classification: \_\_\_\_\_

\_\_\_\_\_  
 Name of Facility Owner or Permittee, Title (Print) Facility Owner or Permittee (Signature)

#### II. SYSTEM TYPE (Check only one of the following. Use additional sheets if necessary.)

Public Water System (PWS)	Distribution System	Treatment Works	Collection System
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

#### III. OPERATOR OF RECORD INFORMATION

Add Additional(A), New (N) or Remove(R)	Name of Operator of Record	Certification Number & Expiration Date	I verify that I am the onsite certified operator responsible for the technical operation of the above referenced facility. (Signature of certified operator)*

\* A signature by an operator of record who is being removed is not required.  
 (Attach additional sheets if necessary.)

Amount of time an ORC spends onsite at the Facility: \_\_\_\_\_

For Internal Use Only	
Reviewed by: _____	Date of SDWIS update: _____
Date of Compliance Status Letter: _____	

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> <li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	<p>A. Signature  <input checked="" type="checkbox"/> <i>Kurt Osborn</i> <input type="checkbox"/> Agent  <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) _____ C. Date of Delivery <i>9/29/09</i></p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes  or delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p style="text-align: center;"><b>LOCUST RIDGE NURSING HOME  ATTN MR HOWARD MEEKER  12745 ELM CORNER ROAD  WILLIAMSBURG OH 45176</b></p>	<p>B  <input type="checkbox"/> Mail <input type="checkbox"/> Express Mail  <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Return Receipt for Merchandise  <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p>
<p>2. Article Number  (Transfer from service label)</p>	<p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>7006 2760 0003 0781 4135</p>	
PS Form 3811, February 2004	Domestic Return Receipt
	102595-02-M-1540

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Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

*THAB*

Sent To *Locust Ridge Nursing Home*

Street, Apt. No., or PO Box No. *ATTN: Mr Howard Meeker  
12745 Elm Corner Rd.*

City, State, ZIP+4 *Williamsburg, OH 45176*

PS Form 3800, August 2006 See Reverse for Instructions

7006 2760 0003 0781 4135