Common Compliance Violations

Steve Warrner, WDNR Wastewater Specialist
Fred Hegeman, WDNR Statewide Residuals Coordinator
36th Annual Spring Biosolids Symposium, March 20, 2018
Overview

Identify common compliance violations:

Vehicles (Septage)
Spreading/Disposal Records
Land Application
Annual Reports
Note: The following photographs have been edited to remove identifying features. Please use discretion when viewing these photographs.
Overview

Identify common compliance violations:

Vehicles (Septage)

Spreading/Disposal Records

Land Application

Annual Reports
Septage vehicles must meet s. NR 113.06, Wis. Adm. Code requirements.
“Wisconsin Sanitary Licensee License No 2485”
Readily Visible?
Sticker?
Readily Visible?

Lettering Distinct?
No Sticker
No Gallons
License Plate?

This vehicle is licensed with the Wisconsin Department of Natural Resources as required by Wisconsin Administrative Code NR 113 until June 30, 2019.
Hose cap? Cleanout SOP?
Misc. Septage Vehicle Violations

- Unregistered vehicles
- Lack of records (minimum of 2 days)
- Lack ch. NR 113 Wis. Adm. Code
- Lack spill plan
- Lack of spill clean-up supplies
  - Shovel
  - Bleach
  - Quick dry, towels, etc.
Overview

Identify common compliance violations:

Vehicles (Septage)
Spreading/Disposal Records
Land Application
Annual Reports
“Tell the Story…”
Daily Land Application Logs

WPDES permits require:

- DNR #
- Outfall #
- Total acres
- Total volume
- Spreading method
- Hydraulic rate (ex: gal/acre/day)
- Load rate (N lbs/acre)
- Load rate (Chloride lbs/acre)
<table>
<thead>
<tr>
<th>Date</th>
<th>Site #</th>
<th>Acres</th>
<th>Gallons Today</th>
<th>Gallons/acre</th>
<th>Source</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-1</td>
<td></td>
<td>316.67</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-1</td>
<td></td>
<td>139.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Land application mgt. plan requires completion of this log.
<table>
<thead>
<tr>
<th>Date</th>
<th>Field ID</th>
<th>Approved Acres</th>
<th>Hydraulic Appl. Rate?</th>
<th>Nitrogen (lbs/acre)?</th>
<th>Spreading Method (VAR)?</th>
<th>Outfall?</th>
<th>Acres?</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/32/17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/18/18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Land application mgt. plan requires completion of this log.
Septage Record Requirements

- Name, address, location of system serviced
- Date/time
- Type system
- Gallons collected
- Disposal location
- Disposal date/time
- Pathogen & Vector Attraction Reduction Statement

- Pathogen control
  - Description
  - Records
- Vector Attraction Red.
  - Description
  - pH adjustment test method & records
  - Lime receipts (if applic.)

Reference: s. NR 113.11(3)(c), Wis. Adm. Code
<table>
<thead>
<tr>
<th>Site/Field (key?)</th>
<th>Abbreviations for service location (key?)</th>
<th>Disposal date? Time?</th>
<th>pH Measurements?</th>
<th>Pathogen/VAR Statement?</th>
<th>Waste Type (key?)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Time</td>
<td>Initial pH Reading</td>
<td>End Time</td>
<td>End pH Reading</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Temp C*</td>
<td>PH</td>
<td>D.Time</td>
<td>Temp C*</td>
<td>Gallons</td>
</tr>
<tr>
<td>2:10</td>
<td>8.20</td>
<td>2.20</td>
<td>2.10</td>
<td>4.20</td>
<td>1000</td>
</tr>
<tr>
<td>2.20</td>
<td>8.45</td>
<td>2.20</td>
<td>2.20</td>
<td>5.20</td>
<td>1500</td>
</tr>
<tr>
<td>4.20</td>
<td>8.45</td>
<td>2.20</td>
<td>2.20</td>
<td>6.20</td>
<td>2050</td>
</tr>
<tr>
<td>6.20</td>
<td>8.45</td>
<td>2.20</td>
<td>2.20</td>
<td>7.20</td>
<td>1100</td>
</tr>
<tr>
<td>8.45</td>
<td>2.45</td>
<td>2.45</td>
<td>4.55</td>
<td>8.55</td>
<td>1650</td>
</tr>
<tr>
<td>Trick 4.22.16</td>
<td>10.40</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W 9188</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Overview

Identify common compliance violations:

- Vehicles (Septage)
- Spreading/Disposal Records
- Land Application
- Annual Reports
Code Requirements
NR 113: Septage
NR 204: Sewage Sludge
NR 214: Industrial Wastes
Water Body?
Uniform Application?
Waste in Ditch?
Wetland?
What type of waste?
Person
Truck Moving?
Bridge
Waterway?
Unreported Spills
Leak Proof?
Proper Maint?
Nuisance Free?
Nuisance Free?
Litter Control
Splash Plate?
Uniform Spreading?
Surface Application
(Injection Required)
Surface Application

VAR Met?

Uniform Spreading?
Misc. Landspreading Violations

- Unapproved changes to management plan
- Spreading in restricted areas
- Crop restrictions (pathogen wastes)
Overview

Identify common compliance violations:

Vehicles (Septage)
Spreading/Disposal Records
Land Application
Annual Reports
Land Application Reports

1) Wastewater Characteristic Form (3400-049)
2) Other Methods of Disposal (3400-052)
3) Annual Land Application Report (3400-055)

Generally due January 31 (year following land application).
“Top 3” 49 Report Violations

1) Late reports
2) Missing parameters
3) Metal exceeds high quality/ceiling limit (NR 204)

Table 1

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Ceiling concentrations (milligrams per kilogram—ppm) (dry weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic</td>
<td>75</td>
</tr>
<tr>
<td>Cadmium</td>
<td>85</td>
</tr>
<tr>
<td>Copper</td>
<td>4300</td>
</tr>
<tr>
<td>Lead</td>
<td>840</td>
</tr>
<tr>
<td>Mercury</td>
<td>57</td>
</tr>
<tr>
<td>Molybdenum</td>
<td>75</td>
</tr>
<tr>
<td>Nickel</td>
<td>420</td>
</tr>
<tr>
<td>Selenium</td>
<td>100</td>
</tr>
<tr>
<td>Zinc</td>
<td>7500</td>
</tr>
</tbody>
</table>

Reference s. NR 204.07(5)(a)
“Top 3” 52 Report Violations

1) Incorrect data (outfall, volume)
2) Unapproved discharge location(s)
3) Missing generated sludge total (NR 204)
**Reporting Discrepancies**

**750,000 Holding Tank**

---

**METHODS of DISPOSAL OR DISTRIBUTION REPORT**

Section 283.55(1) or 281.48(3)(b), Wis. Stats.

Form 3400-52 Rev. 11-97

WPDES Permit No:
Permittee/Licensee Name:
FID Number:
County:

Form requires electronic submittal by January 31
Please keep a completed version of the form for your records.
Year Submitted for: 2014


<table>
<thead>
<tr>
<th>End Use</th>
<th>DNR Permit/License # of Receiving Entity</th>
<th>Name of Treatment or Receiving Entity</th>
<th>Outfall No. **</th>
<th>Total Amount Disposed, Disposed or Distributed</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>20460</td>
<td>Port Washington wastewater</td>
<td>990</td>
<td>750</td>
<td>Gallons</td>
</tr>
<tr>
<td>A</td>
<td>20460</td>
<td>Port Washington wastewater</td>
<td>995</td>
<td>1,503,000</td>
<td>Gallons</td>
</tr>
<tr>
<td>A</td>
<td>26038</td>
<td>Oshkosh wastewater</td>
<td>995</td>
<td>2,883.15</td>
<td>Gallons</td>
</tr>
<tr>
<td>A</td>
<td>26038</td>
<td>Oshkosh wastewater</td>
<td>995</td>
<td>275.10</td>
<td>Gallons</td>
</tr>
<tr>
<td>A</td>
<td>22489</td>
<td>Fort Atkinson wastewater</td>
<td>995</td>
<td>5,287</td>
<td>Gallons</td>
</tr>
</tbody>
</table>

---

Comments:

*L = Landfill, I = Incinerate, E = Produce a exceptional quality product, M = Manure Pit, A = Another facility for further treatment and/or ultimate disposition, H = Hauled out-of-state for further treatment and/or ultimate disposition.*

**If the waste applied is septic waste, indicate 990 if septic tank waste, 996 if holding tank waste, or 997 if more than 25% grease interceptor waste.**

Completion and submission of this form is mandatory under section 283.55, Wis. Stats., and NR 204 or 214 Wis. Adm. Code, or 281.48(3)(b), Wis. Stats., and NR 113 Wis. Adm. Code. Failure to properly complete and submit this form is a violation of section 283.31 or 281.48, Wis. Stats., and may result in a monetary penalty and/or imprisonment. Personally identifiable information on this form is not intended to be used for any other purpose.

I hereby certify that to the best of my knowledge, the statements are true and correct.

Signature of Principal Officer or Authorized Agent | Print or Type Name | Title | Date Signed
|------------------------------------------------|-------------------|-------|-----------|---------|

---
“Top 5” 55 Report Violations

- Missing soil test reports (NR 204)
- Spreading on an unapproved field
- Report spreading more acres than approved
- Overapplication of Nitrogen/Chloride
- Missing data
  - Nitrogen supplied waste
  - Application method
  - Other sources nitrogen
<table>
<thead>
<tr>
<th>DNR #</th>
<th>Fac Site #/field #</th>
<th>Landowner</th>
<th>Acres Land Applied</th>
<th>Outfall No</th>
<th>Amount of Waste</th>
<th>Units</th>
<th>N supplied from waste (lbs/acre)</th>
<th>Other Sources of N (lbs/acre)</th>
<th>Crop Code</th>
<th>Crop Year</th>
<th>Nitrogen Rec. (lbs/acre)</th>
<th>Method</th>
<th>Chlorides Applied (lbs/acre)</th>
<th>Site no longer used</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td></td>
<td></td>
<td>10.0</td>
<td>990</td>
<td>42,000</td>
<td>GAL</td>
<td></td>
<td></td>
<td>18</td>
<td>2014</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td></td>
<td></td>
<td>10.0</td>
<td>990</td>
<td>24,000</td>
<td>GAL</td>
<td></td>
<td></td>
<td>17</td>
<td>2015</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td></td>
<td></td>
<td>10.0</td>
<td>995</td>
<td>40,000</td>
<td>GAL</td>
<td></td>
<td></td>
<td>18</td>
<td>2014</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td></td>
<td></td>
<td>10.0</td>
<td>995</td>
<td>32,000</td>
<td>GAL</td>
<td></td>
<td></td>
<td>17</td>
<td>2015</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td></td>
<td></td>
<td>10.0</td>
<td>990</td>
<td>120,000</td>
<td>GAL</td>
<td></td>
<td></td>
<td>18</td>
<td>2014</td>
<td></td>
<td>INC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td></td>
<td></td>
<td>10.0</td>
<td>990</td>
<td>36,000</td>
<td>GAL</td>
<td></td>
<td></td>
<td>17</td>
<td>2015</td>
<td></td>
<td>INC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td></td>
<td></td>
<td>10.0</td>
<td>995</td>
<td>124,000</td>
<td>GAL</td>
<td></td>
<td></td>
<td>18</td>
<td>2014</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td></td>
<td></td>
<td>10.0</td>
<td>995</td>
<td>32,000</td>
<td>GAL</td>
<td></td>
<td></td>
<td>17</td>
<td>2015</td>
<td></td>
<td>INC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td></td>
<td></td>
<td>80.0</td>
<td>990</td>
<td>18,000</td>
<td>GAL</td>
<td></td>
<td></td>
<td>18</td>
<td>2014</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td></td>
<td></td>
<td>80.0</td>
<td>990</td>
<td>16,000</td>
<td>GAL</td>
<td></td>
<td></td>
<td>16</td>
<td>2015</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td></td>
<td></td>
<td>80.0</td>
<td>995</td>
<td>28,000</td>
<td>GAL</td>
<td></td>
<td></td>
<td>18</td>
<td>2014</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td></td>
<td></td>
<td>80.0</td>
<td>995</td>
<td>20,000</td>
<td>GAL</td>
<td></td>
<td></td>
<td>18</td>
<td>2015</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td></td>
<td></td>
<td>100.0</td>
<td>990</td>
<td>260,000</td>
<td>GAL</td>
<td></td>
<td></td>
<td>17</td>
<td>2014</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td></td>
<td></td>
<td>100.0</td>
<td>990</td>
<td>190,000</td>
<td>GAL</td>
<td></td>
<td></td>
<td>17</td>
<td>2015</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td></td>
<td></td>
<td>100.0</td>
<td>995</td>
<td>120,000</td>
<td>GAL</td>
<td></td>
<td></td>
<td>17</td>
<td>2015</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td></td>
<td></td>
<td>100.0</td>
<td>995</td>
<td>80,000</td>
<td>GAL</td>
<td></td>
<td></td>
<td>17</td>
<td>2014</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td></td>
<td></td>
<td>100.0</td>
<td>995</td>
<td>118,000</td>
<td>GAL</td>
<td></td>
<td></td>
<td>17</td>
<td>2015</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td></td>
<td></td>
<td>100.0</td>
<td>995</td>
<td>104,000</td>
<td>GAL</td>
<td></td>
<td></td>
<td>17</td>
<td>2014</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td></td>
<td></td>
<td>100.0</td>
<td>995</td>
<td>110,000</td>
<td>GAL</td>
<td></td>
<td></td>
<td>17</td>
<td>2015</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td></td>
<td></td>
<td>100.0</td>
<td>990</td>
<td>96,000</td>
<td>GAL</td>
<td></td>
<td></td>
<td>1</td>
<td>2014</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td></td>
<td></td>
<td>100.0</td>
<td>990</td>
<td>104,000</td>
<td>GAL</td>
<td></td>
<td></td>
<td>1</td>
<td>2015</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td></td>
<td></td>
<td>100.0</td>
<td>995</td>
<td>110,000</td>
<td>GAL</td>
<td></td>
<td></td>
<td>1</td>
<td>2014</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Take Home Message

• Always room for improvement

• Do a self assessment:
  – Meet NR 113, 204, or 214 Wis. Adm. Code?
  – Meet requirements of mgt. plan?

• What can I improve?

• Ask for help
Questions??

Stephen Warrner
Stephen.Warrner@Wisconsin.gov
Phone: (920) 387-7870