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

September 26, 2013

Re: Jackson County
Rumpke Beech Hollow Landfill
Compliance Evaluation Inspection
NPDES Permit 0IN00169*DD

Mr. Jay Roberts, Director of EEAD
Rumpke Waste, Inc.
10795 Hughes Road
Cincinnati, Ohio 45251

Dear Mr. Jay Roberts:

On September 19, 2013, I conducted a Compliance Evaluation Inspection at Rumpke Waste, Inc. Beech Hollow Landfill, 28 AW Long Road, Wellston, Ohio. Bruce Downard, District Manager, represented Rumpke, Inc., and accompanied me during the inspection. The purpose of the inspection was to determine Rumpke Waste, Inc., Beech Hollow Landfill's compliance with NPDES Permit Number 0IN00169*DD and the Ohio Water Pollution Control Act, Revised Code Chapter 6111.

As a result of the inspection and review of our files, I have the following comments:

1. Sediment pond (001) was observed to have a normal appearance, and there was no discharge from the outfall at the time.

2. Sediment pond (002) was observed to have a normal appearance with a slight discharge of clear water. The influent to this pond is treated with soda ash briquettes for pH adjustment, due to past strip mining activity of the area.

3. Sediment pond (003) was observed to have a normal appearance, and there was no discharge from the outfall at the time.

4. The leachate collection system and adjacent wheel wash system were observed, and appeared to be functioning normally.

5. The facility Stormwater Pollution Prevention Plan (SWPPP) updated April 2012, was briefly reviewed and appeared satisfactory. No spill events occurred in the past year.

The Discharge Monitoring Reports (DMR's) covering the months of August 2012 through July 2013 for the facility were reviewed. Our review indicates violations of the conditions of the NPDES permit. The specific instances of noncompliance and/or deficiencies are as follows:

Reporting Period	Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
Dec. 2012	001	00530	Total Suspended Solids	1D Conc	45	49.6	12/19/12
Dec. 2012	001	00530	Total Suspended Solids	30D Conc	30	49.6	12/1/12
Dec. 2012	003	00530	Total Suspended Solids	1D Conc	45	48.9	12/19/12
Dec. 2012	003	00530	Total Suspended Solids	30D Conc	30	48.9	12/1/12
Dec. 2012	003	00530	Residue, Settleable (V	1D Conc	0.5	.8	12/19/12

NOTES: 1D Conc = Daily Average Concentration Value
1D Qty = Daily Average Loading Value
7D Conc = Weekly Average Concentration Value
30D Conc = Monthly Average Concentration Value
7D Qty = Weekly Average Loading Value
30D Qty = Monthly Average Loading Value

Please be advised that failure to comply with the effluent limitations or to satisfy the monitoring or reporting requirements of your NPDES permit may be cause for enforcement action pursuant to the Ohio Revised Code Chapter 6111.

If you have not already done so, please inform this office, in writing, by October 15, 2013, as to the reasons for the above-referenced violations, as well as a description of the actions taken or proposed to prevent any further violations. Your response should include the dates, either actual or proposed, for completion of the actions

Attached is a copy of the inspection report which indicates satisfactory evaluations of the various listed areas. Overall, the facility appeared to be in substantial compliance with the NPDES permit.

Please respond to this letter by October 15, 2013.

The Ohio EPA strongly encourages pollution prevention as the preferred approach for waste management. The first priority of pollution prevention is to eliminate the generation of wastes and pollutants at the source (source reduction). For those wastes or pollutants that are generated, the second priority is to recycle or reuse them in an environmentally sound manner. You can benefit economically, help preserve the environment, and improve your public image by implementing pollution prevention

programs. For more information about pollution prevention, including fact sheets and U.S. EPA's Facility Pollution Prevention Guide, (EPA/600/R-92/088), you may contact the Ohio EPA Pollution Prevention Section at (614) 644-3469 or me for additional information.

Sincerely,

Dan Messerly
Division of Surface Water

DM/dh

Enclosure

c: Bruce Downard, District Manager, Rumpke Waste, Inc.
c: Andrew Rumpke, V.P., Rumpke Waste, Inc.
c: David Murphy, Engineer (Central Ohio Market), Rumpke Waste, Inc.

State of Ohio Environmental Protection Agency
Southeast District Office

Industrial NPDES Compliance Inspection Report

Section A: National Data System Coding					
Permit #	**NPDES #**	**Month/Day/Year**	**Inspection Type**	**Inspector**	**Facility Type**
0IN00169*DD	OH0108171	09/19/2013	C	S	2

Section B: Facility Data		
Name and Location of Facility Inspected	**Entry Time**	**Permit Effective Date**
Rumpke Waste Inc., Beech Hollow Landfill 28 AW Long Road Wellston, Oh, Jackson County	10:00 AM	August 1, 2010
	Exit Time	**Permit Expiration Date**
	12:45 PM	July 31, 2015
Name(s) and Title(s) of On-Site Representative(s)	**Phone Number(s)**	
Bruce Downard, District Manager	(740) 384-5472	
Name, Address, and Title of Responsible Official	**Phone Number**	
Jay Roberts, Director of EEAD (Engineering & Env. Affairs) Andrew Rumpke, V.P. David Murphy, Engineer (Central Ohio Market) Rumpke Waste, Inc., 10795 Hughes Road, Cincinnati, Ohio 45251	(513) 851-0122	

Section C: Areas Evaluated During Inspection

(S = Satisfactory; M = Marginal; U = Unsatisfactory; N = Not Evaluated; N/A = Not Applicable)

S	Permit	S	Flow Measurement	N	Pretreatment
S	Records/Reports	S	Laboratory	N/A	Compliance Schedules
S	Operations & Maintenance	S	Effluent/Receiving Waters	S	Self-Monitoring Program
S	Facility Site Review	N/A	Sludge Storage/Disposal		Other
N/A	Collection System				

Section D: Summary of Findings (attach additional sheets if necessary)

Storm runoff sediment pond outfall 001 had no discharge; pond had normal appearance.
Storm runoff sediment pond outfall 002 had a slight discharge, water was clear; pond had a normal appearance.
Storm runoff sediment pond outfall 003 had no discharge; pond had a normal appearance.
Landfill leachate collection system, wheel wash system, truck maintenance garage wash bay oil/water separator and holding tank, truck maintenance garage sewage holding tank inspected. Scale house also has sewage holding tank.
Stormwater pollution prevention plan (SWPPP) briefly reviewed.
Facility receives 400,000+ tons/year solid waste for disposal; 4-5 Mgal. leachate hauled away/year to Wellston wwtp.

Inspector	Reviewer
Dan Messerly 9/26/13	Timothy M Cox for 9/24/13
Dan Messerly Date Division of Surface Water Southeast District Office	**Jennifer M. Witte** Date Compliance & Enforcement Supervisor Division of Surface Water Southeast District Office

Permit #: 0IN00169*DD
NPDES #: OH0108171

Sections E through K: Complete on all inspections as appropriate
Y = Yes; N = No; N/A = Not Applicable; N/E = Not Evaluated

Section E: Permit Verification

Inspection observations verify the permit

(a)	Correct name and mailing address of permittee	Y
(b)	Correct name and location of receiving waters	Y
(c)	Do Categorical Standards apply? If yes, list applicable standards	N
(d)	Product(s) and production rates conform with permit application (Industries)	Y
(e)	Flows and loadings conform with NPDES permit	Y
(f)	Treatment processes are as described in permit application	Y
(g)	All discharges are permitted	Y
(h)	Number and location of discharge points are as described in permit	Y
(i)	Storm water discharges properly permitted	Y

Comments/Status:

NPDES Application Form 1, contains an error which states that the facility is located in Muskingum County (should state Jackson County).

Section F: Compliance

(a)	Any significant violations since the last inspection	N
(b)	Appropriate Non-compliance notification of violations	N/A
(c)	Permittee is taking actions to resolve violations	N/A
(d)	Permittee has a compliance schedule	N
(e)	Compliance schedule contained in	N/A
(f)	Permittee is in compliance with schedule	N/A
(g)	Has biomonitoring shown toxicity in discharge since last inspection	N/A

Comments/Status:

Section G: Operation and Maintenance

Treatment Works:

Treatment facility properly operated and maintained

(a) Standby power available generator ☐ or dual feed ☐ ..... N/A

i. What does the back-up power source operate

ii. How often is the generator tested under load

(b) Which components have an alarm system available for power or equipment failures

N/A

(c) All treatment units in service other than backup units ..... N/A

(d) What method is used for scheduling routine and preventative maintenance (calendar, software, etc.)

N/A

(e) Any major equipment breakdown since last inspection ..... N/A

(f) Operation and maintenance manual provided and maintained ..... N/A

(g) Any plant bypasses since last inspection ..... N/A

(h) Any plant upsets since last inspection ..... N/A

Comments/Status:

There is no sewage treatment facility, other than septic system (STLF) for office, holding tank for truck maintenance building, holding tank for scale house. Sewage holding tanks emptied at least monthly and hauled to Chillicothe WWTP; records on this are kept at truck maintenance building.
Truck maintenance building wash bay has oil/water (O/W) separator with effluent holding tank, which is pumped out and also hauled to Chillicothe wwtp.
Leachate collection tank has high level alarm linked remotely to operator.

Section H: Sludge Management

(a) Method of Sludge Disposal..... ☐ Land Application
☐ Haul to Another NPDES Permittee
☐ Haul to a Mixed Solid Waste Landfill

*if one of the selected methods is land application, complete applicable charts.

Class A – Exception Quality Sewage Sludge (monitoring station 584)

Pathogen Reduction Alternative	84370 Vector Attraction Reduction Options							
	Option 1 – 38% Volatile Solids Reduction	Option 2 – Anaerobic Bench Scale Analysis	Option 3 – Aerobic Bench Scale Analysis	Option 4 – Specific Oxygen Uptake Rate	Option 5 – Aerobic Time and Temperature	Option 6 – Alkali Addition	Option 7 - >75% Solids without Unstabilized Solids	Option 8 - >75% Solids with Unstabilized Solids
Alternative 1 – Time and Temperature Regime (84369)	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 2 – High pH and High Temperature (84369)	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 3 – Other Processes (84369)	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 4 – Unknown Processes (84369)	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 5 – Composting (84397)	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 5 – Heat Drying (84397)	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 5 – Heat Treatment (84397)	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 5 – Thermophilic Aerobic Digestion (84397)	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 5 – Beta Ray Irradiation (84397)	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 5 – Gamma Ray Irradiation (84397)	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 5 – Pasteurization (84397)	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 6 – Approved Equivalent Process	☐	☐	☐	☐	☐	☐	☐	☐

Class B – Sewage Sludge (monitoring station 581)

Pathogen Reduction Alternative	84370 Vector Attraction Reduction Options									
	Option 1 – 38% Volatile Solids Reduction	Option 2 – Anaerobic Bench Scale Analysis	Option 3 – Aerobic Bench Scale Analysis	Option 4 – Specific Oxygen Uptake Rate	Option 5 – Aerobic Time and Temperature	Option 6 – Alkali Addition	Option 7 - >75% Solids without Unstabilized Solids	Option 8 - >75% Solids with Unstabilized Solids	Option 9 – Land Injection	Option 10 – Immediate Incorporation
Alternative 1 – Geometric Mean of Seven Fecal Samples (84369)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 2 – Aerobic Digestion (46396)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 2 – Air Drying (46396)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 2 – Anaerobic Digestion (46396)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 2 – Composting (46396)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 2 – Lime Treatment (46396)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Alternative 3 – Approved Equivalent Process	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

(b) Has amount of sludge generated changed significantly since the last inspection ..... N/A

(c) How much sludge storage is provided at the plant

N/A

(d) Records kept in accordance with State and Federal law (5 years according to OAC 3745-40-06) ..... N/A

(e) Any complaints received in last year regarding sludge ..... N/A

(f) 5/8" screen at headworks for facilities that land apply sludge ..... N/A

(g) Are sludge application sites inspected to verify compliance with NPDES permit ..... N/A

(h) Is a contractor used for sludge disposal ..... N/A

If so, what is the name of the contractor

Comments/Status:

Septic tank serving office will be emptied every 4-5 years; and hauled to Chillicothe wwtp.

Section I: Self-Monitoring Program

Flow Measurement:

(a) Primary/Secondary flow measuring devices operated and maintained ..... Y

Type of device (e.g., weir with ultrasonic level sensor):

stop watch and container.

(b) Calibration frequency adequate ..... N/A

Date of last calibration:

N/A

(c) 24-hour recording instruments operated and maintained ..... N/A

(d) Flow measurement equipment adequate to handle full range of flows ..... Y

(e) Actual flow discharged is measured ..... N

(f) Flow measuring equipment inspection frequency

Daily: ☐ Weekly: ☒ Monthly: ☐ Other: ☐

Comments/Status:

Flow estimate is made using gallon container and stop watch. This may be accurate at low flow level, but for higher flow rate a larger container should be utilized.

Sampling:

(a) Sampling location(s) are as specified by permit ..... Y
(b) Parameters and sampling frequency agree with permit ..... Y
(c) Permittee uses required sampling method (see GLC page) ..... Y
(d) Monitoring records (i.e., flow, pH, DO) maintained for a minimum of three years including all original strip chart recordings (i.e., continuous monitoring instrumentation, calibration and maintenance records) ..... Y

Comments/Status:

Laboratory:

General

(a) Does the Quality Assurance Manual contain written Standard Operating Procedures (SOP's) for all analysis performed onsite ..... N
(b) Do SOP's include the following if applicable ..... N

- Title
- Scope and Application
- Summary
- Sample Handling & Preservation
- Interferences
- Apparatus and Materials
- Reagents
- Procedure
- Calculations
- Quality Control
- Maintenance
- Corrective Action
- Reference (Parent Method)

Note: Standard Methods 1020A establishes that "Quality assurance (QA) is the definitive program for laboratory operation that specifies the measure required to produce defensible data of know precision and accuracy. Standard operating procedures are to be used in the laboratory in sufficient detail that a competent analyst unfamiliar with the method can conduct a reliable review and/or obtain acceptable results." SOPs should be developed for each analytical procedure.

(c) EPA approved analytical testing procedures used (40 CFR 136.3) ..... Y
(d) If alternate analytical procedures are used, proper approval has been obtained ..... N/A
(e) Analyses being performed more frequently than required by permit ..... Y
(f) If (e) is yes, are results in permittee's self-monitoring report ..... N
(g) Satisfactory calibration and maintenance of instruments/equipment (see score from GLC page) ..... Y
(h) Commercial laboratory used ..... Y
Parameters analyzed by commercial lab: **all parameters except pH/temp. pH/temp. are done at outfall by Rumpke staff (Bruce Downard).**
Lab name: **Test America, 11416 Reading Rd., Cincinnati, Oh**

Discharge Monitoring Report Quality Assurance (DMRQA)

(a) Participation in latest USEPA quality assurance performance sampling ..... N/A
Date:
(b) Were any parameters "Unsatisfactory" ..... N/A
(c) Reasons for "Unsatisfactory" parameters

N/A

Comments/Status:

Rumpke does not have SOP's for pH/temp., but has mfr. instrument manual which outlines proper calibration method, etc. Samples are collected and tested more frequently than required by the permit. Instrumentation should be properly calibrated and sample results reported on your Discharge Monitoring Reports.

Section J: Effluent/Receiving Water Observations

Outfall #: **001- sediment pond effluent**
002- sediment pond effluent
003- sediment pond effluent
Outfall Description: **001- no discharge**
002- slight discharge; clear water
003- no discharge

Receiving Stream: **(@001) unnamed tributary of Mulga Run**
(@002) unnamed tributary of Mulga Run
(@003) unnamed tributary of Little Raccoon Creek
Receiving Stream Description: **(@001) orange in color, due to past mining related drainage**
(@002) receiving stream slight tan due to runoff other than pond outfall
(@003) effluent goes to ditch leading to a second pond; water in the ditch appeared clear to slightly cloudy.

Section K: Multimedia Observations

(a) Are there indications of sloppy housekeeping or poor maintenance in work & storage areas or laboratories ..... N
(b) Do you notice staining or discoloration of soils, pavement or floors ..... N
(c) Do you notice distressed (unhealthy, discolored, dead) vegetation ..... N
(d) Do you see unidentified dark smoke or dust clouds coming from sources other than smokestacks ..... N
(e) Do you notice any unusual odors or strong chemical smells ..... Y
(f) Do you see any open or unmarked drums, unsecured liquids, or damaged containment facilities ..... N

If any of the above are observed, ask the following questions:
(1) What is the cause of the condition?
(2) Is the observed condition or source a waste product?
(3) Where is the suspected contaminant normally disposed?
(4) Is this disposal permitted?
(5) How long has the condition existed and when did it begin?

Comments/Status:

An odor of landfill gas was noted.

General Lab Criteria

Facility: Beech Hollow Landfill Sept 19, 2013 CEI, Jackson County

Criteria	Standard Methods Requirement	Acceptable?		Rating
Balance				
• Standard Weights	• Either NIST Class s or ASTM/ANSI Class 1 weights[1,2]	☐ Yes	☐ No	N/A
• Calibration Frequency/ Documentation	• Calibration verification required at least once each day the balance is used[3]	☐ Yes	☐ No	
• Cleanliness, air movement, vibration	• Cleanliness of balance is a must and air movement and vibration needs to be kept to a minimum[1]	☐ Yes	☐ No	
• Other	• Service and recalibrate annually (manufacturer representative or comparable)[1]	☐ Yes	☐ No	
	• Must be able to measure to 0.1 grams[4]	☐ Yes	☐ No	
	• Instrument manual available	☐ Yes	☐ No	
	• Log book maintained[6]	☐ Yes	☐ No	
Comments:				

Criteria	Standard Methods Requirement	Acceptable?		Rating
Drying Oven (Suspended Solids)				
• Temperature Recordkeeping	• Temperature recorded with each use[4]	☐ Yes	☐ No	N/A
	• Log book maintained[6]	☐ Yes	☐ No	
• Calibration Frequency/ Documentation	• Thermometer calibrated annually with NIST traceable thermometer[1,2]. Correction factor posted on thermometer/equipment[1]	☐ Yes	☐ No	
• Other	• Thermometer temperature in 0.1°C increments[5]	☐ Yes	☐ No	
	• Acceptable temperature range is 103° – 105°F[4]	☐ Yes	☐ No	
	• Instrument manual available	☐ Yes	☐ No	
Comments:				

Criteria	Standard Methods Requirement	Acceptable?		Rating
pH Meter				
• Calibration Frequency/ Documentation	• Calibration verification required for testing over long period of time (e.g. 12 hrs.), or after a large number of samples (every 10 samples)[3]	☒ Yes	☐ No	M
	• Log book maintained[9]	☒ Yes	☐ No	
• Minimum of 2 point calibration	• Calibration per manufacturer specification and calibration buffers must bracket anticipated result[7]	☒ Yes	☐ No	
• Slope Documentation/ Acceptability	• Slope acceptable range indicated on benchsheet[2]	☒ Yes	☐ No	
• Buffer Expiration Date	• Buffers must not be expired	☐ Yes	☒ No	
• Other	• Instrument manual available	☒ Yes	☐ No	
	• Teflon covered magnetic stirrer or equivalent for mixing[8]	☐ Yes	☐ No	
Comments: Oakton PC-300 pH/temp/cond. meter used; pH calibrated per mfr. manual, using instrument calibr. function; pH measurement done at discharge point.; calibration buffer packs were expired and need to be replaced. Calibration log is kept on B. Downard's laptop computer spreadsheet; a log sheet for days when substitute individual does calibrations should be maintained.				

General Lab Criteria

Criteria	Standard Methods Requirement			Rating
Dissolved Oxygen Meter		**Acceptable?**		
• Calibration Method	• Air or known DO calibration method[10]	☐ Yes	☐ No	**N/A**
	• Calibration per manufacturer specification[10]	☐ Yes	☐ No	
• Calibration Frequency/ Documentation	• Logbook maintained[9]	☐ Yes	☐ No	
	• Calibration verification required at least once each day the meter is used.[3]	☐ Yes	☐ No	
• Other	• Small to no bubble present under membrane (must be smaller than the lead in number 2 pencil)[11]	☐ Yes	☐ No	
	• Instrument manual available	☐ Yes	☐ No	
Comments:				

Criteria	Standard Methods Requirement			Rating
Incubator (CBOD/E-Coli)		**Acceptable?**		
• Temperature Recordkeeping	• Temperature checked/recorded twice daily for each shelf in use[1]	☐ Yes	☐ No	**N/A**
	• Temperature checked/recorded daily[2] (CBOD)	☐ Yes	☐ No	
	• Acceptable temperature range (CBOD) is 20°C ±1.0°[12]	☐ Yes	☐ No	
	• Acceptable temperature range (E-Coli) is 35°C ±0.5°[22]	☐ Yes	☐ No	
	• Logbook maintained[9]	☐ Yes	☐ No	
• Temperature Calibration/ Documentation	• Thermometer calibrated annually with NIST traceable thermometer[1,2]	☐ Yes	☐ No	
	• Temperature correction information posted on incubator[1]	☐ Yes	☐ No	
• E-Coli can use multiple tubes (five 20 ml or ten 10 mg), or mfg's multi-well tray	• E-coli Ultraviolet lamp (365 nm wave length, 6 W bulb)[23]	☐ Yes	☐ No	
• Other	• Instrument manual available	☐ Yes	☐ No	
	• Temperature Log (thermometer reads to 0.1 Celsius)[5]	☐ Yes	☐ No	
Comments:				

Criteria	Standard Methods Requirement			Rating
Refrigerator		**Acceptable?**		
• Temperature Recordkeeping	• Temperature Log (thermometer reads to 0.1 Celsius)[5]	☐ Yes	☐ No	**N/A**
• Temperature Calibration/ Documentation	• Thermometer calibrated annually with NIST traceable thermometer[1,2]	☐ Yes	☐ No	
• Other	• Thermometer held in water bath[1]	☐ Yes	☐ No	
	• Refrigerator temperature ≤6° Celsius[13]	☐ Yes	☐ No	
	• Do not store volatile solvents, food, or beverages[14]	☐ Yes	☐ No	
Comments:				

Criteria	Standard Methods Requirement			Rating
Chlorine Meter		**Acceptable?**		
• Calibration Frequency/ Documentation	• pH/millivolt meter read to 0.1 mV[15]	☐ Yes	☐ No	**N/A**
	• Calibration verification required for testing over long period of time (e.g. 12 hrs.), or after a large number of samples (every 10 samples)[3]	☐ Yes	☐ No	
• Calibration Method	• Calibration using three iodate solutions 0.2, 1.0, 5.0 milliliters	☐ Yes	☐ No	

General Lab Criteria

	or calibration per manufacturer specification[16]			
	• Standards used for calibration not expired	☐ Yes	☐ No	
• Slope Documentation/ Acceptability	• Calibration curve (acceptable slope)	☐ Yes	☐ No	
• Other	• Electrode free of deposits and foreign material	☐ Yes	☐ No	
	• Log book being maintained[9]	☐ Yes	☐ No	
	• Instrument manual available	☐ Yes	☐ No	
Comments:				

Criteria	Standard Methods Requirement			Rating
Ammonia Meter		**Acceptable?**		
• Calibration Frequency/ Documentation	• Calibration verification required for testing over long period of time (e.g. 12 hrs.), or after a large number of samples (every 10 samples)[3]	☐ Yes	☐ No	**N/A**
	• Log book being maintained[9]	☐ Yes	☐ No	
• Slope Acceptability	• Verify calibration slope is acceptable (per mfg. spec.)	☐ Yes	☐ No	
• Calibration Method	• Standards used for calibration (3 ammonia solutions of 10 mg/l, 1 mg/l, and 0.1 mg/l) or per mfg. spec.[17]	☐ Yes	☐ No	
	• Standards used for calibration not expired	☐ Yes	☐ No	
• Other	• Electrode free of deposits and foreign material	☐ Yes	☐ No	
	• Teflon covered magnetic stirrer or equivalent for mixing[18]	☐ Yes	☐ No	
	• Instrument manual available	☐ Yes	☐ No	
Comments:				

Criteria	Standard Methods Requirement			Rating
Sample Collection/Handling		**Acceptable?**		
• Sample Labeling	• Samples container labeled (description, date, time, preservative added, initialed)[19]	☒ Yes	☐ No	**A**
• Chain of Custody	• Chain of custody (description, date, time, signature)[19]	☒ Yes	☐ No	
• Other	• Composite samples refrigerated during sample collection[14]	☐ Yes	☐ No	
	• Equipment blanks utilized[14]	☐ Yes	☐ No	
	• SOP for cleaning of sampling equipment	☒ Yes	☐ No	
	• Log book being maintained[9]	☒ Yes	☐ No	
Comments: Cooler w/bottles/preservatives mailed to facility from Test America, Cincinnati, Oh. Samples preserved, put on ice in cooler, no refrigerator used, shipped out by private courier ~12:30 pm and arrive at lab ~3pm. Samples are grab. No SOP's other than pH/temp meter manual procedures. Maintain laptop log of pH meter calibration.				

Criteria	Standard Methods Requirement			Rating
Desiccator		**Acceptable?**		
• General Criteria	• Properly working seals	☐ Yes	☐ No	**N/A**
	• Desiccant fresh (blue color)	☐ Yes	☐ No	
• Documentation	• Log book being maintained[9]	☐ Yes	☐ No	
Comments:				

General Lab Criteria

Criteria	Standard Methods Requirement			Rating
Bench Sheets		**Acceptable?**		
• General Criteria	• Date(s)[2]	☒ Yes	☐ No	**M**
	• Analyst initials[2]	☐ Yes	☒ No	
	• Blue or black ink pen[2]	☐ Yes	☐ No	
	• Calibration information[2]	☒ Yes	☐ No	
	• Equations, calculations, units for all measurements, notations, and results present[2]	☐ Yes	☐ No	
	• Corrections, single line through, initialed and dated[2]	☐ Yes	☐ No	
Comments: PC-300 meter pH calibration record is kept on B. Downard's laptop computer spreadsheet; a log sheet should be kept which can be initialed, especially for days when substitute individual must do sampling. Temp. calibration of same meter is not done; and must be done, with analyst initial provided.				

Criteria	Standard Methods Requirement			Rating
Hot Water Bath (Fecal Coliform/E. Coli)		**Acceptable?**		
• Temperature Recordkeeping	• Temperature Log (thermometer reads 0.2° C)[21]	☐ Yes	☐ No	**N/A**
	• Incubator temperature 44.5° C ±0.2° [21/24]	☐ Yes	☐ No	
• Temperature Calibration/ Documentation	• Thermometer calibrated annually with NIST traceable thermometer[1,2]	☐ Yes	☐ No	
	• Log book being maintained[9]	☐ Yes	☐ No	
• Water Level	• Thermometer total immersion or partial (line on thermometer to ID immersion depth)[1,5]	☐ Yes	☐ No	
Comments:				

Criteria	Standard Methods Requirement			Rating
Autoclaves/Steam Sterilizers		**Acceptable?**		
• All apparatus utilized is adequately sterilized before use	• Sterilizing temperature 121° C[25]	☐ Yes	☐ No	**N/A**
	• 10 to 30 minutes time based on material being sterilized[26]	☐ Yes	☐ No	
• Documentation	• Verify the autoclave temperature weekly by using a maximum registering thermometer (MRT) to confirm that 121°C has been reached as measured in the exhaust[1]	☐ Yes	☐ No	
	• Date, contents, sterilization time and temperature, total time in autoclave, and analyst's initials should be recorded each time the autoclave is used[1]	☐ Yes	☐ No	
• Temperature Calibration/ Documentation	• Thermometer calibrated annually with NIST traceable thermometer[1,2]	☐ Yes	☐ No	
	• Log book being maintained[9]	☐ Yes	☐ No	
• Performance Checks	• Test monthly for efficacy using a biological such as commercially available *Geobacillus stearothermophilus* in spore strips, suspensions, or capsules[1]	☐ Yes	☐ No	
Comments:				

General Lab Criteria

Criteria	Standard Methods Requirement			Rating
Final Effluent Temperature Monitoring		**Acceptable?**		
• General Criteria	• Thermometer calibrated annually with NIST traceable thermometer[1,2]	☐ Yes	☒ No	U
	• Thermometer reads in increments of at least 0.1°C[5]	☒ Yes	☐ No	
	• Log book being maintained[2]	☐ Yes	☒ No	
Comments: Oakton PC-300 meter used; do not calibrate; no log maintained for temp. calibration, etc.				

Number of Criteria Rated:	**Acceptable**	
	Marginal	
	Unacceptable	
	Total Number of Areas Rated	

Acceptable Ratings – No action required (recommend SOP's written or updated, perform DMRQA's for all onsite analysis, recommend voluntary lab analyst certification, written response not required).	
Marginal Ratings – Improvements required, written response required (recommend SOP's be written or updated, recommend they perform DMRQA's for all onsite analysis, recommend voluntary lab analyst certification, require deficiencies to be addressed in written response).	
Unsatisfactory Rating – Improvements required, written response required, NOV issued (recommend SOP's be written or updated, recommend they perform DMRQA's for all onsite analysis, recommend voluntary lab analyst certification, require deficiencies to be addressed in written response to NOV).	
Consider recommending PAI Audit from DES when:	>60% of ratings are Marginal >45% of ratings are a combination of Marginal or Unacceptable >30% of ratings are Unacceptable

General Lab Criteria

Notation of Referenced Method

1	Method 9020-B, Item 4	14	Method 1060A, Item 1
2	Method 1020-A, Item 1	15	Method 4500-Cl I, Item 2
3	Method 1020-B, Item 10	16	Method 4500-Cl I, Item 4
4	Method 2540-B, Item 2	17	Method 4500-NH3 D, Item 4
5	Method 2550-B, Item 1	18	Method 4500-NH3 D, Item 2
6	Method 1020-B, Item 1	19	Method 1060-B, Item 2
7	Method 4500-H B, Item 4	20	Method 1060-B, Item 1
8	Method 4500-H B, Item 2	21	Method 9222D, Item 1
9	Method 1020-B, Item 2	22	Method 9223 B, Item 2
10	Method 4500-O B, Item 3	23	Method 9223 B, Item 3
11	Method 4500-O G, Item 3	24	Method 1603, Item 2
12	Method 5210-B, Item 5	25	Method 9030-B, Item 3
13	CFR 136.3, Table II	26	Method 9020 B, Table IV

Equipment Logbook Content – All maintenance performed on a piece of equipment should be documented in the logbook. This should include parts replacement and routine maintenance activities. Entries should include date, maintenance performed and initials of person making entry.

Preservation and Holding Times

Parameter	Container	Min. Sample Size (mL)	Sample Type	Preservation	Maximum Storage Time	
					Recommended	Regulatory
BOD / CBOD	P, G	1000	G, C	Refrigerate ≤6°C	6h	48h
TSS	P, G	200	G, C	Refrigerate ≤6°C	7 d	7 d
pH	P, G	50	G	Analyze immediately	0.25h	0.25 h
NH3-N	P, G	500	G, C	Analyze as soon as possible or add H_2SO_4 to pH <2, Refrigerate ≤6°C	7 d	28 d
TRC	P, G	500	G	Analyze immediately	0.25h	0.25 h
DO (electrode)	G, BOD Bottle	300	G	Analyze immediately	0.25h	0.25 h
Temperature	P, G	--	G	Analyze immediately	0.25h	0.25 h
Metals, general	P, G	1000	G, C	For dissolved filter immediately and add HNO_3 to pH <2	6 months	6 months
Purgeables by purge and trap	G (PTFE lined lid)	40 (X2)	G	HCl to pH <2, Refrigerate ≤6°C	7 d	14 d
Base/Neutrals and acids	G (solvent rinsed or baked)	1000	G, C	Refrigerate ≤6°C	7 d	7 days until extraction 40 days after extraction
Pesticides	G (PTFE lined lid)	1000	C	Refrigerate ≤6°C	7 d	7 days until extraction 40 days after extraction
Fecal Coliform / E-Coli	G, P (Sterilized)	100	G	Refrigerate ≤10°C If chlorine present, add sodium thiosulfate tablet	6 hrs transport. Start analysis within 2 hrs of receipt in lab.	
Oil and Grease	G	1000	G	HCl or H_2SO_4 to pH <2, Refrigerate ≤6°C	28 d	28 d

General Lab Criteria

Approved Standard Methods	
CBOD / BOD 5 Day	Std Methods 5210-B
Ammonia, Selective Electrode Method	Std Methods 4500-NH3 D
Total Residual Chlorine, DPD Colorimetric Method	Std Methods 4500-Cl G
Total Suspended Solids, Dried at 103-105°C	Std Methods 2540-D
Dissolved Oxygen, Membrane Electrode Method	Std Methods 4500-O G
pH, Electrometric Method	Std Methods 4500-H+ B
Fecal Coliform, Membrane Filter Procedure	Std Methods 9222D
Escherichia Coli, Enzyme Substrate Test	Std Method 9223B
Escherichia Coli Membrane Filtration Procedure	EPA Method 1603
Oil and Grease	USEPA 1664A or Std Methods 5520B
Metals, general	USEPA 200, Std Methods 3111B or C, or 3120B
Volatiles (Purgeables by purge and trap)	USEPA 6210, Std Methods 624
Semi-Volatiles (Base/Neutrals and acids)	USEPA 6410, Std Methods 625
Pesticides	USEPA 6410 and 6630, Std Methods 608

Beech Hollow Landfill Sept. 19, 2013 CEI Agm. Jackson County

Rumpke Waste Inc.



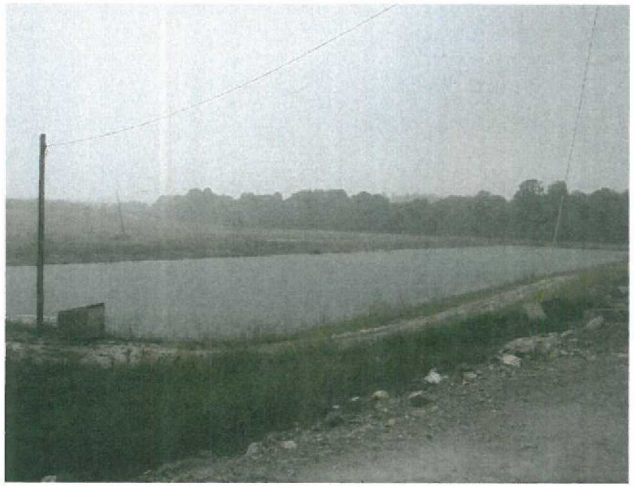


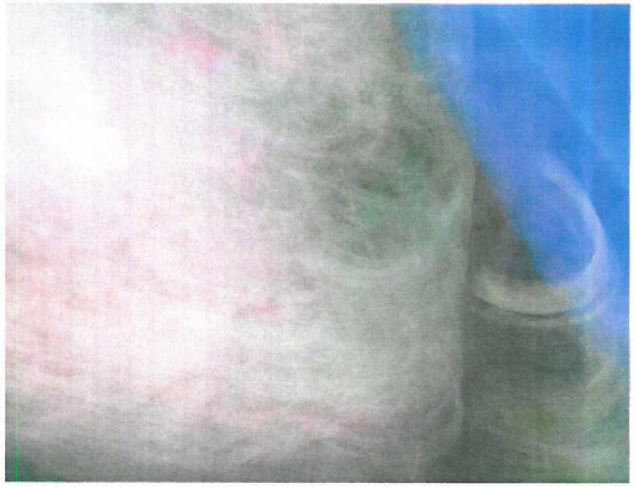




Beech Hollow Landfill 9-19-2013 CEI






Beech Hollow Landfill 9-19-2013 CEI









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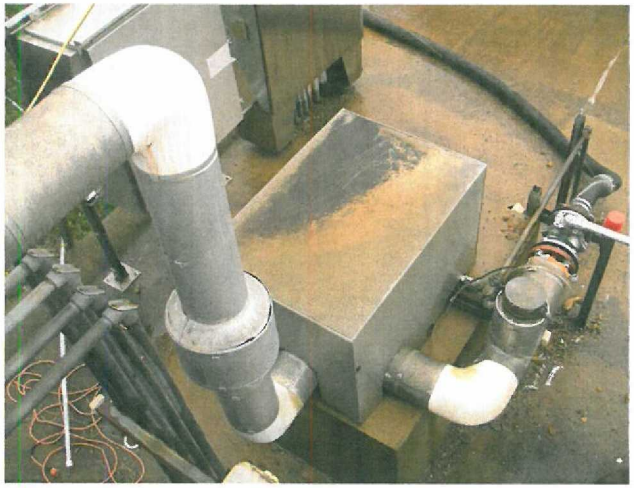


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