



Florida Department of Environmental Protection

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Mr. Lenny Marion
Solid Waste Director
3151 East State Road 44
DeLand, FL 32724

OCD-SW-09-0231

Volusia County - SW
Tomoka Farms Road Landfill WACS # 27540
Class I - Permit # S064-0078767-016
Inspection Report Transmittal

Dear Mr. Marion:

On June 12, 2009, representatives of the Florida Department of Environmental Protection conducted an inspection at the above referenced facility to determine the status of compliance with solid waste regulations.

At the time of the inspection, the following was noted:

1. On the north side of the Class I Landfill it appears that leachate was mixing with storm water and draining into the North Lake.
2. On the south side of the Class I landfill leachate was seeping from the landfill and flowing outside the lined area. It appeared that the leachate was mixing with storm water.
3. The haul road that runs between the east and west portions of the Phase I, Class I Landfill was acting as a pathway for seeping leachate to flow aboveground, down to the southern toe of the landfill on the east side of the roadway. It appeared that leachate had left the lined landfill. This was the same problem that was observed during the previous inspection conducted on April 2, 2009.
4. Leachate was seeping and ponding on the west side of the haul road where it intersects with the East Cell haul road. It appeared that leachate had flowed outside the lined area.

Leachate seepage at the landfill continues to be an issue. During the meeting on May 28, 2009, corrective measures that were taken or intended to be taken were discussed. These corrective measures had not been accomplished at the time of this inspection.

The Department recognized that heavy rainfall may have contributed to the problems. However, it is now time to find a permanent solution to solve the leachate seepage problem.

Within 15 days of receipt of this letter provide the Department with a written response documenting the corrective actions that have been taken or will be taken to correct the items listed above or submit a corrective action plan with an implementation schedule that will permanently abate and correct the leachate seepage at the landfill.

If you have any questions or need further information, please contact Gloria-Jean DePradine at (407) 893-3328 or by e-mail at Gloria.Depradine@dep.state.fl.us.

Sincerely,



F. Thomas Lubozynski, P.E.
Waste Program Administrator

Date: August 5, 2009

FTL/jtw

Attachments: Inspection Reports: Class I & Class III

cc: Jennifer Stirk, Volusia County, jstirk@co.volusia.fl.us
Chet Purves, Volusia County, cpurves@co.volusia.fl.us
Darrell Abrahamson, Volusia County, dabrahamson@co.volusia.fl.us



Florida Department of
Environmental Protection
Inspection Checklist

FACILITY INFORMATION:

Facility Name: TOMOKA FARMS ROAD LANDFILL

On-Site Inspection Start Date: 06/12/2009

On-Site Inspection End Date: 06/12/2009

WACS No.: 27540

Facility Street Address: 1990 TOMOKA FARMS ROAD

City: DAYTONA BEACH

County Name: VOLUSIA

Zip: 32114

INSPECTION PARTICIPANTS:

(Include ALL Landfill and Department Personnel with Corresponding Titles)

Principal Inspector: Jeff Waters, Environmental Specialist

Other Participants: Tom Lubozynski, Waste Program Administrator; Jennifer Stirk, Environmental Specialist

INSPECTION TYPE:

Follow-up Operation Inspection for Landfill - Class I facility

Follow-up Operation Inspection for Landfill - Class III facility

Routine Long Term Care Inspection for Landfill - Class I facility

ATTACHMENTS TO THE INSPECTION CHECK LIST:

This Cover Page to the Inspection Checklist may include any or all of the following attachments as appropriate.

SECTION 2.0 - LANDFILL OPERATION AND MAINTENANCE

SECTION 3.0 - LANDFILL LONG-TERM CARE

Inspection Date: 06/12/2009

SECTION 2.0 - LANDFILL OPERATION AND MAINTENANCE**Requirements:**

The requirements listed in this section provide an opportunity for the Department's inspector to indicate the conditions found at the time of the inspection. A "Not Ok" response to a requirement indicates either a potential violation of the corresponding rule or an area of concern that requires more attention. Both potential violations and areas of concern are discussed further at the end of this inspection report.

Item No.	SOLID WASTE PROHIBITIONS (unless "grandfathered" in, see 62-701.300(16)) Completed	Ok	Not Ok	Unk	N/A
2.1	Unauthorized disposal/storage prohibited, except yard trash, within 500' of a potable water well? 62-701.300(2)(b)	✓			
2.2	Unauthorized disposal/storage prohibited, except yard trash, within 1000' of a potable water well serving a community water system? 62-701.300(2)(h)	✓			
2.3	Unauthorized storage/disposal of yard trash prohibited within the minimum setbacks of (Check any that are Not OK) 62-701.300(12) <input type="checkbox"/> 100 feet for potable water wells (except on-site)? <input type="checkbox"/> 50 feet for water bodies? <input type="checkbox"/> 200 feet for community water supply wells?	✓			
2.4	Unauthorized disposal/storage prohibited in an area subject to frequent and periodic flooding unless flood protection measures in place? 62-701.300(2)(d)	✓			
2.5	Unauthorized disposal/storage prohibited in any natural or artificial body of water including ground water? 62-701.300(2)(e)	✓			
2.6	Unauthorized disposal/storage prohibited, except yard trash, within 200' of any natural or artificial body of water, including wetlands without permanent leachate controls, except impoundments or conveyances which are part of an on-site, permitted stormwater management system or on-site water bodies with no off-site discharge? 62-701.300(2)(f)	✓			
2.7	Unauthorized open burning of solid waste prohibited except in accordance with Department requirements? 62-701.300(3)	✓			
2.8	Are the following prohibited wastes or special wastes properly controlled, managed and disposed? (Check any that are Not OK) <input type="checkbox"/> Hazardous waste 62-701.300(4) <input type="checkbox"/> Biomedical waste 62-701.300(6) <input type="checkbox"/> Yard trash 62-701.300(8)(c) <input type="checkbox"/> Whole waste tires 62-701.300(8)(e) <input type="checkbox"/> Used oil, except as exempted 62-701.300(11) <input type="checkbox"/> Lead-acid batteries, mercury-containing switches and lamps in WTEs 62- <input type="checkbox"/> PCB wastes 62-701.300(5) <input type="checkbox"/> Lead-acid batteries 62-701.300(8)(a) <input type="checkbox"/> White goods 62-701.300(8)(d) <input type="checkbox"/> Liquids 62-701.300(10)	✓			
2.9	Are only permitted waste types disposed at facility? 62-701.340(3), 62-701.500(6)(a)&(2)(c)	✓			

Item No.	LANDFILL OPERATION AND MAINTENANCE Completed	Ok	Not Ok	Unk	N/A
2.10	Is there a trained operator on-site at Class I and III landfills when receiving wastes? 62-701.500(1)	✓			
2.11	Is there at least one spotter at each working face when receiving wastes at Class I and III landfills? 62-701.500(1)	✓			
2.12	Are the following records or plans current and available on-site? (Check any that are Not OK.) <input type="checkbox"/> Training Plan 62-701.320(15)(a) <input type="checkbox"/> Operating Plan 62-701.500(2) <input type="checkbox"/> Waste weight records 62-701.500(4) <input type="checkbox"/> Precipitation records 62-701.500(8)(g) <input type="checkbox"/> Load-checking program records 62-701.500(6)(a) <input type="checkbox"/> Training records 62-701.320(15)(a)	✓			

Inspection Date: 06/12/2009

Item No.	LANDFILL OPERATION AND MAINTENANCE Completed	Ok	Not Ok	Unk	N/A
2.12	<input type="checkbox"/> Operation record 62-701.500(3) <input type="checkbox"/> Quantity of leachate 62-701.500(8)(f)	✓			
2.13	Is the operation plan substantially followed? 62-701.500(2)	✓			
2.14	Is incoming waste weighed? 62-701.500(4)(a)&(2)(d)	✓			
2.15	Is the method and sequence of filling wastes according to plans? 62-701.500(2)(f)	✓			
2.16	Is access properly controlled to prevent unauthorized waste disposal? 62-701.500(5)	✓			
2.17	Is waste compacted as required? 62-701.500(7)(a)	✓			
2.18	Are the working face and side slopes above ground graded to a slope no greater than 3 ft. horizontal to 1 ft. vertical rise? 62-701.500(7)(c)	✓			
2.19	Is a narrow working face practiced? 62-701.500(7)(d)	✓			
2.20	Is the frequency, amount and quality of initial cover, as required? 62-701.500(7)(e)	✓			
2.21	Is the frequency, amount and quality of intermediate cover, as required? 62-701.500(7)(f)	✓			
2.22	Is litter controlled and are litter control devices maintained? 62-701.500(7)(i) and (11)(f)		✓		
2.23	Is erosion control adequate? 62-701.500(7)(j)	✓			
2.24	Is the leachate collection and removal system maintained and operated as required? 62-701.500(2)(j), 62-701.500(8)(b) & (h)		✓		
2.25	Is leachate disposed of or treated as required? 62-701.500(8)(b), (c) and (d)	✓			
2.26	If leachate recirculation is practiced at the facility, is it done in accordance with Department requirements and the Operation Plan? 62-701.400(5)				✓
2.27	Is gas controlled to not cause objectionable odors beyond the property boundary? 62-701.530(3)(b)	✓			
2.28	Is gas controlled to not allow combustible gas concentrations to exceed specified limits? 62-701.530(3)(a)			✓	
2.29	Are gas vents intact and functioning properly? 62-701.500(9) & 62-701.530(1)(a)3.			✓	
2.30	Is mixing of leachate and stormwater prevented or minimized? 62-701.500(10) & 62-701.400(9)(c)		✓		
2.31	Is stormwater management system maintained and operated as required? 62-701.500(10)		✓		
2.32	Is there sufficient operating equipment? 62-701.500(11)(a)			✓	
2.33	Is there sufficient reserve equipment (or other arrangements)? 62-701.500(11)(b)			✓	
2.34	Are communication facilities adequate? 62-701.500(11)(c)	✓			
2.35	Are approved dust control methods adequate? 62-701.500(11)(d)	✓			
2.36	Are fire protection and fire fighting capabilities adequate and operational? 62-701.500(11)(e)	✓			
2.37	Are there required signs for operational directions and public information? 62-701.500(11)(g)	✓			
2.38	Are all-weather access roads and inside perimeter roads properly maintained? 62-701.500(12)	✓			
2.39	Are ground water wells intact and properly maintained? 62-701.510(2)(b), 62-701.620(9)	✓			
2.40	Are all specific conditions in the permit being followed? 62-701.320(1)	✓			

Inspection Date: 06/12/2009

SECTION 3.0 - LANDFILL LONG-TERM CARE

Requirements:

The requirements listed in this section provide an opportunity for the Department's inspector to indicate the conditions found at the time of the inspection. A "Not Ok" response to a requirement indicates either a potential violation of the corresponding rule or an area of concern that requires more attention. Both potential violations and areas of concern are discussed further at the end of this inspection report.

Type Of Cover: Geosynthetic Cap

Closure/Final Cover Date: 12/17/2003

Post-Closure None

Surrounding Land Use: Functioning Landfill

Item No.	LANDFILL LONG-TERM CARE Completed	Ok	Not Ok	Unk	N/A
3.1	Is site access controlled to prevent any unauthorized dumping? 62-701.600(5)(i)	✓			
3.2	Are any unauthorized wastes stored or disposed at the site? 62-701.600(5)(i)	✓			
3.3	Is stormwater management system maintained and operated as required? 62-701.600(5)(h)	✓			
3.4	Is the final cover properly vegetated? 62-701.600(5)(f)2.	✓			
3.5	Are there any signs of erosion of the final cover? 62-701.600(5)(f)2.		✓		
3.6	Is there any evidence of damage to the barrier layer of the final cover? 62-701.620(1)	✓			
3.7	Are areas of differential settlement being properly filled? 62-701.600(5)(f)4.	✓			
3.8	Are there any areas of ponding water on the final cover? 62-701.600(5)(f)3.	✓			
3.9	Is the leachate collection and removal system maintained and operated as required? 62-701.500(2)(j), 62-701.500(8)(b) & (h)	✓			
3.10	Is leachate disposed of or treated as required? 62-701.500(8)(b), (c) and (d)	✓			
3.11	Are there any signs of leachate seeps at the closed landfill? 62-701.500(8)(b) and 62-701.620(1)	✓			
3.12	Condition of the ground water monitoring wells. 62-701.620(1) (Check any that are Not OK.) <input type="checkbox"/> Access to monitoring wells <input type="checkbox"/> Damage to monitoring wells <input type="checkbox"/> Monitoring wells protected, secured and labeled.	✓			
3.13	Are the wells for gas monitoring and detection intact and operable? 62-701.620(5)	✓			
3.14	Is the gas collection system (active or passive) operating and maintained? 62-701.620(5)	✓			
3.15	Is gas monitoring being conducted as required? 62-701.620(5)	✓			
3.16	Are there any signs of stressed vegetation of the final cover? 62-701.620(5)	✓			
3.17	Is there any evidence that gas pressure is interfering with or causing failure of the final cover? 62-701.530(1)(a)4.	✓			
3.18	If required, are survey monuments properly installed? 62-701.610(2)	✓			
3.19	Is there a potential hazard to public health and the environment resulting from the post-closure utilization of the landfill? 62-701.610(7)	✓			
3.20	Is there a potential hazard to public health resulting from land-use changes surrounding the closed landfill?	✓			
3.21	If waste is being relocated, is this performed according to the Department's requirements? 62-701.620(8)	✓			
3.22	Are all specific conditions in the closure or long-term care permit being followed? 62-701.620(2)	✓			

Inspection Date: 06/12/2009

Pre-existing Potential Violations:

Area: North Side Slope
Rule: 62-701.500(10), 62-701.400(9)(c)
Question Number: 2.30
Explanation: It appears that leachate has mixed with storm water at the toe of the slope and is draining into the North Lake.
Corrective Action: Devise and submit a plan to the Department stating how the leachate seeps will be stopped or minimized and how it will be prevented from draining into the North Lake.

Attachments:

Ponding leachate



Liquid coming into North Lake



Area: South Side Slope
Rule: 62-701.500(10), 62-701.400(9)(c)
Question Number: 2.30
Explanation: Leachate is seeping from the landfill's side slope to the toe of the slope and continues to flow towards the south to an area outside of the lined landfill. There is a potential for leachate to mix with storm water. In a June 9, 2009 letter from the facility it is stated that an earth berm will be constructed to contain the leachate inside the lined landfill, this berm has not been constructed.
Corrective Action: First, construct the earth berm as stated in the June 9, 2009 letter. Second, devise and submit a plan to the Department stating how the leachate seeps will be stopped or minimized.

Attachments:

Inspection Date: 06/12/2009

Looking S down the side slope



Looking N up the side slope



Leachate leaving lined LF



Leachate outside of lined LF



Rule: 62-701.500(8)(b), 62-701.500(8)(h), 62-701.500(2)(j)

Question Number: 2.24

Explanation: Leachate seepage continues to be an issue on the south side of the Class I infill area, east of the landfill access road. Since the previous FDEP inspection the facility dug out the area and backfilled it with gravel to act as a drain. The gravel extends down to the toe of the south slope and connects to HDPE piping. The piping runs east along phase II of the east cell and discharges the leachate at the toe of the slope on the east side slope. Along the piping run, leachate is collecting outside of the pipe but within the area below grade and constructed for the piping.

The lateral gas tie-in on the south side of the landfill and west of the access road is holding leachate. Lateral gas collection lines were placed in the area and tie into the southern tie-in. These lateral gas lines were installed in February 2009. This piping could be contributing to the leachate seepage in this area.

It appears that all the leachate is staying within the lined landfill.

Corrective Action: I discussed the leachate issue with Jennifer Stirk and Chet Purves; we agreed that the leachate would be collected and pumped directly into the leachate collection system via the leachate clean out number five and one, respectively.

On April 3, 2009 Leonard Marion, Chet Purves and I discussed the leachate issue on the telephone. Mr. Marion agreed that directing the leachate directly

Inspection Date: 06/12/2009

back into the collection system would suffice for a temporary fix. The facility will prepare a permanent solution to fix the issue. Additionally, he insured me that the leachate has remained within the lined landfill.

Comments:

06/19/2009

East of the access road:

This area continues to seep leachate along the east side of the access road. The facility has built up a dirt berm to better contain the leachate at the toe of slope. Some of this dirt is discolored indicating that leachate has passed through the berm to the area outside the lined landfill and a pump is stationed outside of the lined landfill to transfer liquid back into the bermed area. At the time of inspection all leachate was contained within the area of the lined landfill.

The HDPE piping that was previously placed at the toe of slope to collect and direct the free flowing leachate into a leachate clean-out access point has moved above ground. The pipe moved due to heavy rains and is preventing the leachate from gravity flowing into the clean-out access point. The facility stated they would place the pipe back in the ground so leachate would flow again.

West of the access road:

The facility submitted and installed a temporary fix of the leachate seepage on the west side of the access road. The fix was to collect the seeping leachate under ground and direct it into a leachate clean-out access point. At the time of inspection the area had leachate coming out of the ground and flowing south down the side slope. A "U" shaped berm was installed to keep the leachate inside the lined landfill; however, the dirt used for the berm is discolored indicating that leachate has passed through and around the berm to an area outside the lined landfill.

Attachments:

Looking up the roadway to the N



Looking down the roadway to the S



Inspection Date: 06/12/2009

Built up dirt berm



Pump to transfer leachate



Leachate from area of temp. fix



"U" Shaped dirt berm



Discolored dirt outside of berm



Pre-existing Area Of Concern:

Rule: 62-701.500(8)(b), 62-701.500(8)(h), 62-701.500(2)(j)

Question Number: 2.24

Explanation: The haul road that runs between the east and west portions of the Phase I Class I Landfill is acting as a pathway for seeping leachate to flow aboveground down to the southern toe of the landfill on the east side of the roadway. A lesser amount of leachate is seeping and ponding on the west side of the haul road

Inspection Date: 06/12/2009

where it intersects with the East Cell haul road. It appeared that all leachate is staying within the lined landfill. Birds and deer tracks were noted along the leachate flow at the time of inspection.

Corrective Action: It is not acceptable for the seeping leachate to flow as it is currently. Submit a plan as to how the leachate seeps corrected within 15 days of receipt of this inspection report.

Rule: 62-701.500(2)(f)

Question Number: 1.1

Explanation: The facility is not filling the Class I landfill in accordance with the Updated Operation Plan & Fill Sequence Plan dated September 5, 2008.

Corrective Action: Provide the Department with the actual fill sequence plan.

Comments:

06/19/2009

During the May 28, 2009, meeting the facility stated that the fill plan for the Class I landfill was changed due to the installation of horizontal gas collection lines. The facility is working with their consultants to update the plan.

Rule: 62-701.600(5)(f)2.

Question Number: 3.5

Explanation: Due to recent rains areas of the north side slope have eroded. The facility is in the process of correcting the erosion.

Corrective Action: Continue to correct the eroded areas and submit photographs of the completed work.

Attachments:

Area of erosion



Rule: 62-701.500(10)

Question Number: 2.31

Explanation: Culvert 1 on the north side of the Class III landfill is not operating as designed due to dirt under the culvert being washed out. As a result, a portion of the concrete culvert pipe has broken apart. The portion of the culvert piping that remains in place runs under the landfill's perimeter road. The dirt under this piping and roadway appears to be eroding away too. This poses a potentially

Inspection Date: 06/12/2009

dangerous situation for any traffic that drives over this roadway.

Corrective Action: Devise a plan and time-line for repairs to culvert piping and surrounding areas to be corrected and submit to the Department.

Attachments:

Culvert 1



Culvert 1, note roadway



Rule: 62-701.500(11)(f), 62-701.500(7)(i)

Question Number: 2.22

Explanation: Litter is excessive on east and south side of the phase II east cell.

Corrective Action: Take measures to reduce the amount of wind blown litter throughout the Class I facility.

Comments:

06/19/2009

Excessive litter continues to be an issue on the east side of the North Cell Class I Landfill. At the time of inspection two workers were removing litter from the ponded leachate. The facility had a pump in place to transfer the ponded leachate into the leachate collection system.

Additional measures need to be taken to reduce the amount of litter collecting on this side of the landfill.

Attachments:

Looking south down E side slope



Looking north down E side slope



Inspection Date: 06/12/2009

COMMENTS:

06/16/2009

On May 28, 2009, a meeting was held to discuss issues identified in the April 2, 2009 FDEP inspection and outlined in FDEP's May 5, 2009 Non Compliance letter. Facility personnel addressed each item cited in the non-compliance letter and explained the temporary fix to manage the leachate seeping from the southern side of the landfill.

On June 9, 2009, the facility submitted a letter to the Department listing the issues the facility was addressing after several days of heavy rain.

On June 12, 2009, a follow-up inspection was conducted to determine the status of the temporary corrective actions the facility made during the May 28, 2009, meeting. The issues noted during the inspection are listed in this report's "Areas of Concern" and "Violations." In addition, the following observations were made:

Class III

This landfill and the working face are in good order and don't appear to have been affected by the recent rains.

Class I

Numerous areas along the south side slope of the North Cell Class I Landfill (North Cell) had leachate bubbling up gas from the ground. This appears to be from landfill gasses passing through the saturated ground and escaping into the atmosphere.

Areas on the west side slope on the North Cell are also seeping leachate. It appears that the leachate is staying within the lined landfill. In the June 9, 2009 letter it states that an earth berm will be constructed to prevent leachate from leaving the lined landfill; this was not in place at the time of inspection.

Joyce Belen with SCS was on-site to oversee the contractors working to fix the leachate collection line that was determined to be damaged when it was inspected by a camera fed into the line. The crew was working on the northwest corner of the North Cell and had dug down exposing the leachate line to be repaired and the bottom-liner.

The same crew had previously been working on the northeast corner of the North Cell to repair a leachate pipe but due to heavy rain leachate filled the excavated area. The crew was planning to come back to the area once they completed the work on the northwest corner and the leachate was removed.

As stated in the June 9, 2009 letter the condensate pump on the north side slope of the North Cell was exposed due to erosion. At the time of inspection the facility had corrected and back-filled the affected area and was planning on placing sod in the next few days to complete the work.

The west side slope of the North Cell also showed signs of erosion. The facility had repaired previous areas of erosion but since that time new erosion had occurred.

Item 2.12 - Marked unknown because inspectors did not review the listed items. At the time of the 4/2/2009 inspection this question was in-compliance.

Item 2.28 & 2.29 - Marked unknown because of the bubbling landfill gasses noted along the south side of the North Cell. It is unknown how this is affecting the combustible gas levels and if it is being caused by malfunctioning gas collection wells.

Item 2.32 & 2.33 - Marked unknown because the corrective actions listed in the June 9, 2009, letter have not been completed. The facility has numerous issues to correct and may need

Inspection Date: 06/12/2009

additional equipment or personnel to help.

ATTACHMENTS:

NW corner leachate line repair



NE corner to be repaired



W side slope



W side slope



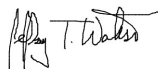
Inspection Date: 06/12/2009

Signed:

Jeff Waters

PRINCIPAL INSPECTOR NAME

Environmental Specialist

PRINCIPAL INSPECTOR TITLE**PRINCIPAL INSPECTOR SIGNATURE**

FDEP

ORGANIZATION

7/24/2009

DATE

Tom Lubozynski

INSPECTOR NAME

Waste Program Administrator

INSPECTOR TITLE

NO SIGNATURE

INSPECTOR SIGNATURE

FDEP

ORGANIZATION

Jennifer Stirk

REPRESENTATIVE NAME

Environmental Specialist

REPRESENTATIVE TITLE

NO SIGNATURE

REPRESENTATIVE SIGNATURE

Volusia County SW Division

ORGANIZATION

NOTE: By signing this document, the Site Representative only acknowledges receipt of this Inspection Report and is not admitting to the accuracy of any of the items identified by the Department as "Not Ok" or areas of concern.