



Florida Department of Environmental Protection

Southwest District Office
13051 North Telecom Parkway
Temple Terrace, FL 33637-0926

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Jonathan P. Steverson
Secretary

September 6, 2016

Mr. John Lyons, P.E., Director
Hillsborough County Public Works Department
925 East Twiggs Street
Tampa, Florida 33602
LyonsJ@hillsboroughcounty.org

Re: Inspection Report and "Investigation of TH-67 Area Report"
Hillsborough Southeast County Landfill
15960 County Road 672
Permit No. 35435-022-SO/01; Facility #41193
Hillsborough County

Dear Mr. Lyons:

On August 25, 2016, the Department conducted an inspection of the referenced facility. During this inspection, possible violations of Chapter 403, F.S., and Chapter 62-701, Florida Administrative Code, were observed. Also, the Department received the "*Investigation of TH-67 Area Report*" dated August 23, 2016. Based on the inspection and review of the referenced report, the Department would like to discuss concerns regarding potential non-compliance issues, which include impacts to groundwater, the management of leachate, and stormwater management.

We look forward to resolving these concerns with you. Please contact Melissa Madden at 813-470-5795 or via email at: Melissa.Madden@dep.state.fl.us within **7 days** of receipt of this letter to schedule a meeting regarding these concerns.

Sincerely,

A handwritten signature in blue ink that reads "Kelley M. Boatwright".

Kelley M. Boatwright
Assistant Director
Southwest District
Florida Department of Environmental Protection

KMB/

Cc: Kim Byer, P.G., Hillsborough County Public Works Dept., ByerK@hillsboroughcounty.org
Larry Ruiz, Hillsborough County Public Works Dept., ruizle@hillsboroughcounty.org
Cindy Pelley, Hillsborough County Public Works Dept., pelleyca@hillsboroughcounty.org
Dave Adams, Hillsborough County Public Utilities Dept., adamsds@hillsboroughcounty.org
Jeffry Greenwell, Hillsborough County Public Utilities Dept.,
greenwellj@hillsboroughcounty.org
Ernest Ely, Waste Management of Florida, eely@wm.com
Ron Cope, HCEPC, cope@epchc.com
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Steve Tafuni, FDEP, Steven.Tafuni@dep.state.fl.us
Cory Dilmore, FDEP, cory.dilmore@dep.state.fl.us

Enclosure: Inspection Report



**Florida Department of
Environmental Protection
Inspection Checklist**

FACILITY INFORMATION:

Facility Name: SOUTHEAST COUNTY SLF (PICNIC LF)

On-Site Inspection Start Date: 08/26/2016

On-Site Inspection End Date: 08/26/2016

WACS No.: 41193

Facility Street Address: 15960 CR 672

City: LITHIA

County Name: HILLSBOROUGH

Zip: 33547

INSPECTION PARTICIPANTS:

(Include ALL Landfill and Department Personnel with Corresponding Titles)

Principal Inspector: Melissa A. Madden, Environmental Consultant

Other Participants: Javier Ramirez, Inspector; John R. Morris, P.G., Professional Geologist; Larry Ruiz, Landfill Manager; Ernie Ely, District Manager; David Adams, P.G., Environmental Manager; Jeffry Greenwell, P.E., Environmental Manager; Cindy Pelley, Landfill Supervisor

INSPECTION TYPE:

Routine Operation Inspection for Landfill - Class I

ATTACHMENTS TO THE INSPECTION CHECK LIST:

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

1.0 - SECTION 1.0 - FILE REVIEW

2.0 - SECTION 2.0 - LANDFILL OPERATION AND MAINTENANCE

Inspection Date: 08/26/2016

1.0 - SECTION 1.0 - FILE REVIEW

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.	FILE REVIEW (Pre- or Post-Inspection, as appropriate.)	Ok	Not Ok	Unk	N/A
1.1	For landfills and C&D disposal facilities, does the facility have a current plan for the method and sequence of filling wastes? 62-701.500(2)(f) for landfills; 62-701.730(7)(a) for C&D debris sites	✓			
1.2	For landfills, are the following records being reported to the Department?(Check any that are Not OK) <input type="checkbox"/> Waste reports (annually) 62-701.500(4) <input type="checkbox"/> Annual estimate of remaining life 62-701.500(13)(c)	✓			
1.3	Is gas monitoring being performed as required by the permit? 62-701.500(9), 62-701.530(2)	✓			
1.4	Are the results of the gas sampling reported to the Department quarterly? 62-701.530(2)(c)	✓			
1.5	Is water quality sampling and testing performed according to standard procedures and at the required frequencies? 62-701.510(2) for landfills; 62-701.730(8) and 62-701.730(10) for C&D debris sites; 62-713.400(3) for stationary soil treatment facilities.	✓			
1.6	Do the results of the water quality testing suggest there may be adverse impacts to water quality from the operation of the solid waste facility? 62-701.510(3) and (4); 62-701.730(4)(c) and (10) for C&D debris sites; 62-713.400(3) for stationary soil treatment facilities.		✓		
1.7	For closed landfills and C&D disposal facilities with final elevations higher than 20 feet above grade, has a final survey report verifying the final elevations and contours of the facility been submitted to the Department? 62-701.600(6)(b), 62-701.730(9)(e)	✓			
1.8	Is financial assurance adequate? 62-701.630 for landfills; 62-701.710(7)(a) and 62-701.710(1)(d)1. for waste processing facilities; 62-701.730(11)(a) for C&D debris facilities; 62-713.600(6)(a) for stationary soil treatment facilities; 62-711.500(3) for waste tire facilities. NOTE: The Solid Waste Financial Coordinator in Tallahassee can assist with this information.	✓			
1.9	Are cost estimates current and adjusted every year? 62-701.630(4) for landfills; 62-701.710(7)(a) and 62-701.710(1)(d)1. for waste processing facilities; 62-701.730(11)(a) for C&D debris facilities; 62-713.600(6)(b) and 62-713.600(6)(c) for stationary soil treatment facilities; 62-711.500(3) for waste tire facilities.	✓			
1.10	For C&D debris disposal and disposal with recycling facilities, is an Annual Report submitted to the Department for the disposal operation by February 1st of each year? 62-701.730(12)				✓
1.11	For C&D recycling facilities with no disposal, is an Annual Report for the recycling facility submitted to the Department by February 1st of each year? 62-701.710(8)(b)				✓
1.12	For compost facilities, has the compost product been sampled and analyzed every 20,000 tons or every 3 months (whichever is sooner)? 62-709.530(1)				✓
1.13	For compost facilities, has the annual report been submitted by June 1st? 62-709.530(3)				✓

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2.0 - 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(18))	Ok	Not Ok	Unk	N/A
2.1.1	Unauthorized storage, processing, or disposal of solid waste except as authorized at a permitted solid waste management facility or other exempt facility. 62-701.300(1)(a)	✓			
2.1.2	Unauthorized disposal or storage prohibited, except yard trash, within 500 feet of a potable water well? 62-701.300(2)(b)	✓			
2.2	Unauthorized storage or 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 from potable water wells (except on-site)? <input type="checkbox"/> 50 feet from water bodies?	✓			
2.3	Unauthorized disposal or storage prohibited in any natural or artificial body of water including ground water and wetlands? (Does not apply to standing water after a storm event.) 62-701.300(2)(d)	✓			
2.4	Unauthorized disposal or storage prohibited, except yard trash, within 200 feet 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)(e)	✓			
2.5	Unauthorized open burning of solid waste prohibited except in accordance with Department requirements? 62-701.300(3)	✓			
2.6	Are the following unauthorized 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"/> Regulated asbestos waste 62-701.520(3), 62-701.730(19) <input type="checkbox"/> Used oil and oily wastes, except as exempted 62-701.300(11) <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) <input type="checkbox"/> CCA treated wood 62-701.300(14)	✓			
2.7	Are only permitted waste types disposed at facility? 62-701.340(2), 62-701.500(6)(a), 62-701.500(2)(c)	✓			
Item No.	LANDFILL OPERATION AND MAINTENANCE	Ok	Not Ok	Unk	N/A
2.8	Is there a trained operator on-site at Class I and III landfills when receiving wastes? 62-701.500(1)	✓			
2.9	Is there at least one trained spotter at each working face when receiving wastes at Class I and III landfills? 62-701.500(1)	✓			

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

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Item No.	LANDFILL OPERATION AND MAINTENANCE	Ok	Not Ok	Unk	N/A
		✓			
2.34	Are fire protection and fire fighting capabilities adequate and operational? 62-701.500(11)(e)	✓			
2.35	Are there required signs for operational directions and public information? 62-701.500(11)(g)	✓			
2.36	Are all-weather access roads and inside perimeter roads properly maintained? 62-701.500(12)	✓			
2.37	Are groundwater wells intact and properly maintained? 62-701.510(2)(b), 62-701.620(8)	✓			
2.38	Are all additional specific conditions (not otherwise addressed above) in the permit, Department order, or certification, if any, being followed? 62-701.320(1), 403.161, F.S.	✓			

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Current Violations:

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

Question Number: 2.22

Explanation: As a result of recent groundwater results reported for TH-67, the County initiated an investigation to determine the source of these water quality changes in and around the adjacent Phase II portion of the landfill. The County installed 5 borings through the waste as part of the Phase II geotechnical investigation (clay consolidation), and converted the borings to piezometers after obtaining clay samples. Water levels measured in the piezometers between June 3 and August 19, 2016 appear to indicate head on the liner ranged between 9 and 17.8 feet. The piezometers closest to the landfill perimeter berm/side liner reported leachate levels higher than the top of the berm, however, no evidence of leachate discharge was found following installation of test pits in the area. An evaluation of the integrity of the side liner was not conducted.

Due to the apparent head on the liner in Phase II, it does not appear that the leachate collection system is functioning as designed. Design specifications for Phases I-VI (soil liners) requires the design of the leachate collection system to minimize head on the liner to less than 12 inches.

Additionally, a review of the most recent leachate generation reports for Phases I-IV indicates that PPS-B has consistently operated so that the leachate level is reported at 32"-35" daily, which is in excess of the proposed leachate level of 24" presented in Section 4.1.2 of the Leachate Management Plan.

Corrective Action: The Department requests that the County schedule a meeting to discuss these issues further.

Attachments:

Phase II Piezometers



Berm - TH-66 (looking N)



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TH-67 - Berm (looking S)



Phase II Piezometer



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Current Areas Of Concern:

Rule: 62-701.510(3), 62-701.510(4), 62-701.730(10), 62-701.730(8)(f), 62-713.400(3)

Question Number: 1.6

Explanation: As a result of the findings of 1st Semi-Annual Water Quality Monitoring Report, and subsequent confirmation sampling results, exceedances of groundwater standards were confirmed at TH-67. This well is completed in the surficial aquifer and has been designated as a detection well located near the southeast corner of Phase II. The parameters of interest are pH, total dissolved solids (TDS), chloride and sodium. As stated in the initial notification e-mail, the County agreed to conduct supplemental sampling of TH-67 and the three closest surficial aquifer monitoring wells to determine the extent of the impacted area. As a follow-up to the April 21, 2016 notification email, the County provided, "Investigation of TH-67 Area Report," which included the supplement sampling data for TH-67, TH-20B, TH-38B, and TH-66A, a summary report and source investigation on August 23, 2016.

Corrective Action: The Department requests that the County schedule a meeting to discuss these issues further.

Attachments:

TH-67



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

Question Number: 2.22

Explanation: Based upon a review of the quarterly leachate generation reports submitted for Q1-Q4 2015 and Q1-Q2 2016, it appears that leachate generation rates for Sections 7, 8 and 9 have decreased to the point where little to no leachate is being generated, despite heavy rainfall. For example, leachate in Section 9 has been reported to pump as little as one gallon per day (August 4, 2016), however, the pumps for this cell are capable of pumping 150 gallons/minute, and therefore a reading of one gallon/day seems unrealistic. Additionally, the leachate volume pumped for the leak detection layer exceeded the volume pumped from the primary liner in Section 7/8 during the period May 19-31, 2016. This data appears to indicate that the leachate collection, transmission or metering system may not be functioning as designed. A large asphalt pad has been installed over a portion of the top of Sections 8 and 9, while the remainder is intermediately covered, however, it is the Department's experience that landfills which have been closed with an "impermeable cap" will continue to generate leachate for the many years following closure. During the inspection, the pump on/off set points appeared to be set at a level which demonstrated that leachate head was being managed appropriately, so it appears that further investigation of the leachate collection and removal system downstream from the sumps is appropriate. During the inspection, pump run times or leachate balance discrepancies were discussed as a way

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to back-calculate leachate generation during this period.

Corrective Action: Please evaluate and provide any additional information about the leachate generation at Sections 7, 8 and 9 during the period January 2016 to present.

Please provide monthly leachate generation reports, by the 15th of each month, until resolution of this issue. Additionally, as discussed during the inspection, please include (at least) weekly Phase II piezometer measurements with these reports.

Attachments:

Section 9 LCS/LDS



Section 7/8 LDS/LCS



COMMENTS:

Item 1.6 – The County has reported elevated concentrations of Total Dissolved Solids (TDS) at monitoring well TH-71A during the August 2014, February 2015, August 2015 and February 2016 sampling events. The County indicated in recent “Response to Florida Department of Environmental Protection Notification E-Mail, Dated April 27, 2016,” submittal that impacts around TH-71A may be attributed to stormwater run-off from the access road leading up to Section 9. The County recently made a modification to the stormwater conveyance from Section 9, where a small swale that follows along east side of the access road has been constructed to move the runoff beyond the perimeter ditch and out towards the northeast. The County should continue to evaluate the results at TH-71A and the effectiveness of the recent stormwater modification, and the need to conduct additional source evaluation and/or implement corrective actions, as necessary

Item 1.9 - The Declaration of Restrictive Covenant and Access Easement Agreement, Item 2.c. requires the County to submit a report by July 1st of each year that certifies that the quantity of suitable soils needed for use as final cover of the facility remain within the restricted property. However, so that the Department may determine the County’s compliance with the Financial Assurance requirements of Rule 62-701.630, F.A.C., this demonstration should be provided with the annual financial assurance cost estimates (revised or inflation-adjusted) due March 1st of each year based on the County’s current funding mechanism.

Item 2.20 - A minor amount of blowing litter was observed on the south side of the working face. Litter fences were observed along the access road, however, did not appear to fully collect litter in the areas down-wind of the current working face. Please continue to maintain litter fences as needed.

Item 2.28 - During the inspection, a small leachate discharge toward the stormwater system was observed from the Section 7/8 leak detection temporary pump. It appeared a connection from the discharge line was not properly sealed, and a minor amount of leachate was discharged. This discharge was cleaned up and repairs to the connection were completed prior to the end of the inspection.

Item 2.37 - Not all wells were inspected during this site inspection. All wells observed appeared to be locked, labeled and in good condition.

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ATTACHMENTS:

Working Face

TH-71A



New swale for TH-71A diversion

PPS-B / PPS-A



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Signed:

Melissa A. Madden
PRINCIPAL INSPECTOR NAME

Environmental Consultant
PRINCIPAL INSPECTOR TITLE


PRINCIPAL INSPECTOR SIGNATURE

DEP
ORGANIZATION 09/01/2016
DATE

Javier Ramirez
INSPECTOR NAME

Inspector
INSPECTOR TITLE

NO SIGNATURE REQUIRED
INSPECTOR SIGNATURE

DEP
ORGANIZATION

John R. Morris, P.G.
INSPECTOR NAME

Professional Geologist
INSPECTOR TITLE

NO SIGNATURE REQUIRED
INSPECTOR SIGNATURE

DEP
ORGANIZATION

Larry Ruiz
REPRESENTATIVE NAME

Landfill Manager
REPRESENTATIVE TITLE

NO SIGNATURE REQUIRED
REPRESENTATIVE SIGNATURE

Hillsborough County - Public Works/Solid Waste
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.

Ernie Ely
REPRESENTATIVE NAME

District Manager
REPRESENTATIVE TITLE

NO SIGNATURE REQUIRED
REPRESENTATIVE SIGNATURE

Waste Management
ORGANIZATION

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David Adams, P.G.
REPRESENTATIVE NAME

Environmental Manager
REPRESENTATIVE TITLE

NO SIGNATURE REQUIRED
REPRESENTATIVE SIGNATURE

Hillsborough County - Public Utilities
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.

Jeffry Greenwell, P.E.
REPRESENTATIVE NAME

Environmental Manager
REPRESENTATIVE TITLE

NO SIGNATURE REQUIRED
REPRESENTATIVE SIGNATURE

Hillsborough County - Public Utilities
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.

Cindy Pelley
REPRESENTATIVE NAME

Landfill Supervisor
REPRESENTATIVE TITLE

NO SIGNATURE REQUIRED
REPRESENTATIVE SIGNATURE

Hillsborough County - Public Works/Solid Waste
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.

Report Approvers:

Approver: Steve Tafuni

Inspection Approval Date: 09/06/2016