



FLORIDA DEPARTMENT OF Environmental Protection

South District Branch Office
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Marathon, FL 33050
SouthDistrict@FloridaDEP.gov

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

May 28, 2019

Via Electronic Mail

John Paul Castro
Utilities Director
City of Key West, Utilities Department
1300 White St.
Key West, FL 33040
Email: jcastro@cityofkeywest-fl.gov

Re: Compliance Assistance Offer
Stock Island Landfill-Closed
WACS 97636
Monroe County

Dear Mr. Castro:

A routine compliance inspection was conducted at your facility on April 24th, 2019. During this inspection, areas of concern were noted. The purpose of this letter is to offer compliance assistance as a means of resolving this matter.

Specifically, a potential non-compliance with the requirements of chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C.) Chapter 62-701 was observed. Please see the attached inspection report for a full account of Department observations and recommendations.

We request you review the item(s) of concern noted and respond in writing (via email is fine) within **15 days** of receipt of this Compliance Assistance Offer. Your written response should include one of the following:

1. Describe what has been done to resolve the non-compliance issue or provide a schedule describing how/when the issue will be addressed.
2. Provide the requested information, or information that mitigates the concerns or demonstrates them to be invalid, or
3. Arrange for the case manager to visit your facility discuss the item(s) of concern.

It is the Department's desire that you are able adequately address the aforementioned issue so that this matter can be closed. Your failure to respond promptly may result in the initiation of formal enforcement proceedings.

Please address your response and any questions to Brian Cumbie of the South District Office at 305-289-7072 or via e-mail at Brian.Cumbie@floridadep.gov.

Sincerely,



Jennifer Carpenter, Assistant Director

Attachment: Inspection Report

GR//RK/BC

cc: John Paul Castro, jcastro@cityofkeywest-fl.gov
Dee Dee Green, dgreen@cityofkeywest-fl.gov
Natalie Cole, ncole@sfwmd.gov

Enclosures: Inspection Report
SILF Trip Report



**Florida Department of
Environmental Protection
Inspection Checklist**

FACILITY INFORMATION:

Facility Name: STOCK ISLAND LF (SOUTHERNMOST WTE & KEY WEST LF)

On-Site Inspection Start Date: 04/24/2019

On-Site Inspection End Date: 04/24/2019

WACS No.: 79636

Facility Street Address: JUNIOR COLLEGE RD

City: KEY WEST

County Name: MONROE

Zip: 33040

INSPECTION PARTICIPANTS:

(Include ALL Landfill and Department Personnel with Corresponding Titles)

Principal Inspector: Brian Cumbie, Environmental Specialist II

Other Participants: Lisa Gordon, Environmental Consultant; John Paul Castro, Utilities Director

INSPECTION TYPE:

Complaint Investigation Inspection for Landfill - Closed - Not in Long Term Care

ATTACHMENTS TO THE INSPECTION CHECKLIST:

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

Note: Checklist items with shaded boxes are for informational purposes only.

3.0 - SECTION 3.0 - LANDFILL - CLOSED

Inspection Date: 04/24/2019

3.0 - SECTION 3.0 - LANDFILL - CLOSED

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: 30 mil Geomembrane

Closure/Final Cover Date: 01/06/1993

Post-Closure Utilization: N/A

Surrounding Land Use: Public school

Surrounding Land Use: Public school

Date Long-Term Care Began: 04/24/1996

Item No.	LANDFILL - CLOSED	Ok	Not Ok	Unk	N/A
3.1	Is site access controlled to prevent any unauthorized dumping? 62-701.600(3)(i)	✓			
3.2	Are any unauthorized wastes stored or disposed at the site? 62-701.600(3)(i)	✓			
3.3	Is stormwater management system maintained and operated as required? 62-701.600(3)(h)		✓		
3.4	Is the final cover properly vegetated? 62-701.600(3)(f)2	✓			
3.5	Are there any signs of erosion of the final cover? 62-701.620(1)	✓			
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(3)(f)4		✓		
3.8	Are there any areas of ponding water on the final cover? 62-701.600(3)(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) and 62-701.500(8)(h)				✓
3.10	Is leachate disposed of or treated as required? 62-701.500(8)(b), 62-701.500(8)(c) and 62-701.500(8)(d)				✓
3.11	Are there any signs of leachate seeps at the closed landfill? 62-701.500(8)(b), 62-701.620(1)				✓
3.12	Condition of the ground water monitoring wells in accordance with the ground water monitoring plan. 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 checked="" 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) <input type="checkbox"/> Signs of stressed vegetation <input type="checkbox"/> Odors or foul smells	✓			
3.15	Is gas monitoring being conducted as required? 62-701.620(5)				✓
3.16	Is there any evidence that gas pressure is interfering with or causing failure of the final cover? 62-701.530(1)(a)4	✓			

Inspection Date: 04/24/2019

Item No.	LANDFILL - CLOSED	Ok	Not Ok	Unk	N/A
3.17	If required, are survey monuments properly installed? 62-701.600(6)				✓
3.18	Is there a potential hazard to public health and the environment resulting from the post-closure utilization of the solid waste disposal facilities or surrounding land-use changes? 62-701.610(1)				✓
3.19	If waste is being relocated, is this performed according to the Department's requirements? 62-701.610(2)	✓			
3.20	Are all additional specific conditions (not otherwise addressed above) in the closure or permit for long-term care, Department order, or certification, if any, being followed? 62-701.620(2), 403.161, F.S.		✓		

Current Areas Of Concern:

Rule: 62-701.600(3)(h)

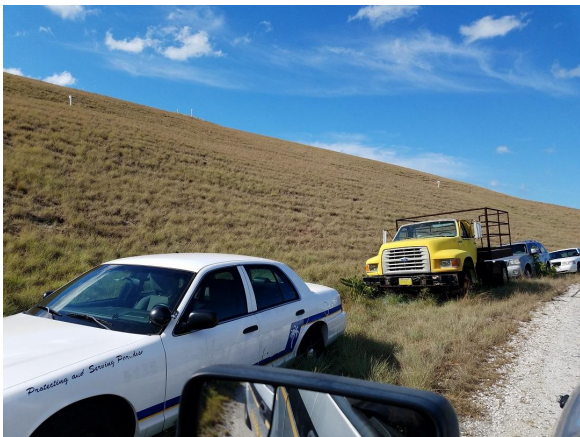
Question Number: 3.3

Explanation: Approximately 30 vehicles were being stored by the city on the north side of the landfill along the access road in the stormwater management area.

Corrective Action: Remove vehicles so that stormwater management is fully operational.

Attachments:

Vehicles along access road



Rule: 62-701.600(3)(f)4.

Question Number: 3.7

Explanation: Along the uppermost bench on the west side and the northwest corner of the landfill, there was some low points that could retain stormwater and accelerate erosion.

Corrective Action: Restore bench to original grade and stabilize with vegetation.

Comments:

The cover in the low area on the west step is greener than the surrounding cover, which could indicate that stormwater is accumulating in that area.

Attachments:

Inspection Date: 04/24/2019

Low point on west step



Low area on northwest corner step



Rule: 62-701.620(1)

Question Number: 3.12

Explanation: No locks were observed on the monitoring wells. Department staff were able to open the well cover.

Corrective Action: Appropriately lock and secure monitoring wells.

Attachments:

Unsecured monitoring well.



Rule: 403.161, 62-701.620(2)

Question Number: 3.20

Explanation: The landfill cover does not show signs of recent mowing. Mr. Castro stated he does not remember when the last mowing event occurred. He further stated that the city's mower is not in operation at this time.

Corrective Action: The city is supposed to mow the landfill cover six times a year. Mr. Castro stated that he is looking at getting a contractor to maintain the cover.

Attachments:

Inspection Date: 04/24/2019

Overgrown plant on cover



COMMENTS:

Lisa Gordon and I met with Mr. Castro at approximately 0935. Mr. Castro provided us access to the site, and accompanied us for about half of our inspection. We inspected the perimeter and the top of the landfill during the inspection.

Weather conditions were assessed at 0945. The temperature was 79 degrees Fahrenheit and sunny with a 5 to 10 mph wind out of the east. Atmospheric pressure was approximately 30.04 inHg and was steady through the inspection. Based on the NOAA Tide predictions, the inspection occurred about midway through an incoming tide.

Lisa Gordon took air readings using a MultiRAE. Readings were taken at gas vent 1, 2, 3, 21, 22, and 24. Air readings were also taken at several locations around the perimeter of the Landfill. I observed a slight intermittent odor about 1 meter downwind from gas vent 1. No other odors were observed during the inspection.

While the Areas of Concern noted above are not violations at this time, the Certification of Completion of Long-Term Care Report (LTC Report), received by the Department on May 24, 2016 and accepted by the Department on November 26, 2016 states:

"Upon Department acceptance of the City's request to certify discontinuation of the Long-Term Care requirements of Chapter 62-701.620, Florida Administrative Code, for the Stock Island Landfill, the City will maintain the property throughout a period herein referred to as "perpetual." City perpetual maintenance will continue to include the following:

Management of the property in accordance with the South Florida Water Management District Permit 44-00076-S (Appendix II, Exhibit 4).

Mowing / Clearing of vegetation over the capped area six times per year, or on an as-needed basis. Vegetation clearing would include clearing areas surrounding stormwater structures in accordance with the stormwater permit.

Iguana control services are utilized on an as-needed basis. The City will continue to proactively protect the geomembrane from iguana activity on the capped landfill area with the ongoing assistance of a professional iguana management and removal contractor.

In the event subsidence occurs, the City will repair area(s) in such a manner as to return the area(s) to their original permitted closure condition.

The LTC Report does not mention monitoring well security. However, if the wells are to remain in place they should be secured from tampering as required in 62-701.510(2)(d)5, F.A.C.

Inspection Date: 04/24/2019

ATTACHMENTS:

East slope



North slope (1)



North Slope (2)



West slope



South slope



Tire tracks in NW swale



Inspection Date: 04/24/2019

Flagged iguana burrows



Stormwater outfall



Inspection Date: 04/24/2019

Signed:

Brian Cumbie

PRINCIPAL INSPECTOR NAME

Environmental Specialist II

PRINCIPAL INSPECTOR TITLE*BTC***PRINCIPAL INSPECTOR SIGNATURE**

FDEP

ORGANIZATION

05/06/2019

DATE

Lisa Gordon

INSPECTOR NAME

Environmental Consultant

INSPECTOR TITLE

NO SIGNATURE REQUIRED

INSPECTOR SIGNATURE

FDEP

ORGANIZATION

John Paul Castro

REPRESENTATIVE NAME

Utilities Director

REPRESENTATIVE TITLE

NO SIGNATURE REQUIRED

REPRESENTATIVE SIGNATURE

City of Key West

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: Gustavo Rios

Inspection Approval Date:

05/13/2019

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION TRIP REPORT

SITE NAME: Key West Stock Island Landfill **LOCATION:** 5701 College Road, Stock Island, Monroe County, FL

FACILITY EMAIL: jcastro@cityofkeywest-fl.gov **FACILITY PHONE:** 305/809-3902

DATE: April 24, 2019 **TIME:** 0930 – 1034 hours

PURPOSE of VISIT: Prearranged onsite meeting to observe current conditions and conduct limited air monitoring.

FDEP PARTICIPANTS: Brian Cumbie, Environmental Specialist II; Lisa Gordon, Environmental Consultant

FACILITY PARTICIPANTS: Mr. John Paul Castro, Utilities Director

NARRATIVE: We met Mr. Castro at the Key West Transit Building and drove to the landfill perimeter road and up the access road to the top of the landfill. Mr. Castro had another commitment and departed around 1000 hours.

The landfill was well vegetated with grasses and herbaceous plants. There were a few woody plants noted that appeared to be *Albezia lebeck* (woman's tongue) and *Schinus terebinthifolia* (Brazilian pepper).

Iguana burrows were present. Many of them had been flagged. Mr. Castro said they are working with a trapper to control the iguanas.

The landfill liner was not visible in any location.

Very little litter was observed.

Numerous out of service city vehicles are parked in a single file line along the swale on the north side of the landfill.

Monitoring well (MW) #2 was examined. Neither the well housing, nor the well cap were locked to prevent tampering.

Limited air monitoring was conducted with a handheld MultiRAE LITE (DEP Property Tag 150351). The meter was successfully calibrated on 4/24/19 and was working normally.

Several of the gas wells were monitored (see table below). No hydrogen sulfide was detected. Readings were taken at several gas vents (GV), and at a few locations along the perimeter road (see attached location maps).

Location	Hydrogen Sulfide (H ₂ S)	Lower Explosive Limit (LEL) (calibrated to methane)
GV-1	0	5%
GV-2	0	27%
GV-3	0	33%
GV-4	0	0
GV-21	0	0
GV-22	0	0
GV-24	0	0
1	0	0
2	0	0
3	0	0
4 (MW-2)	0	0
5	0	0

MultiRAE LITE Specifications:

H₂S: 0 to 100 ppm in 0.1 ppm increments

LEL Methane: 0 to 100% in 1% increments



Typical gas vent (GV).

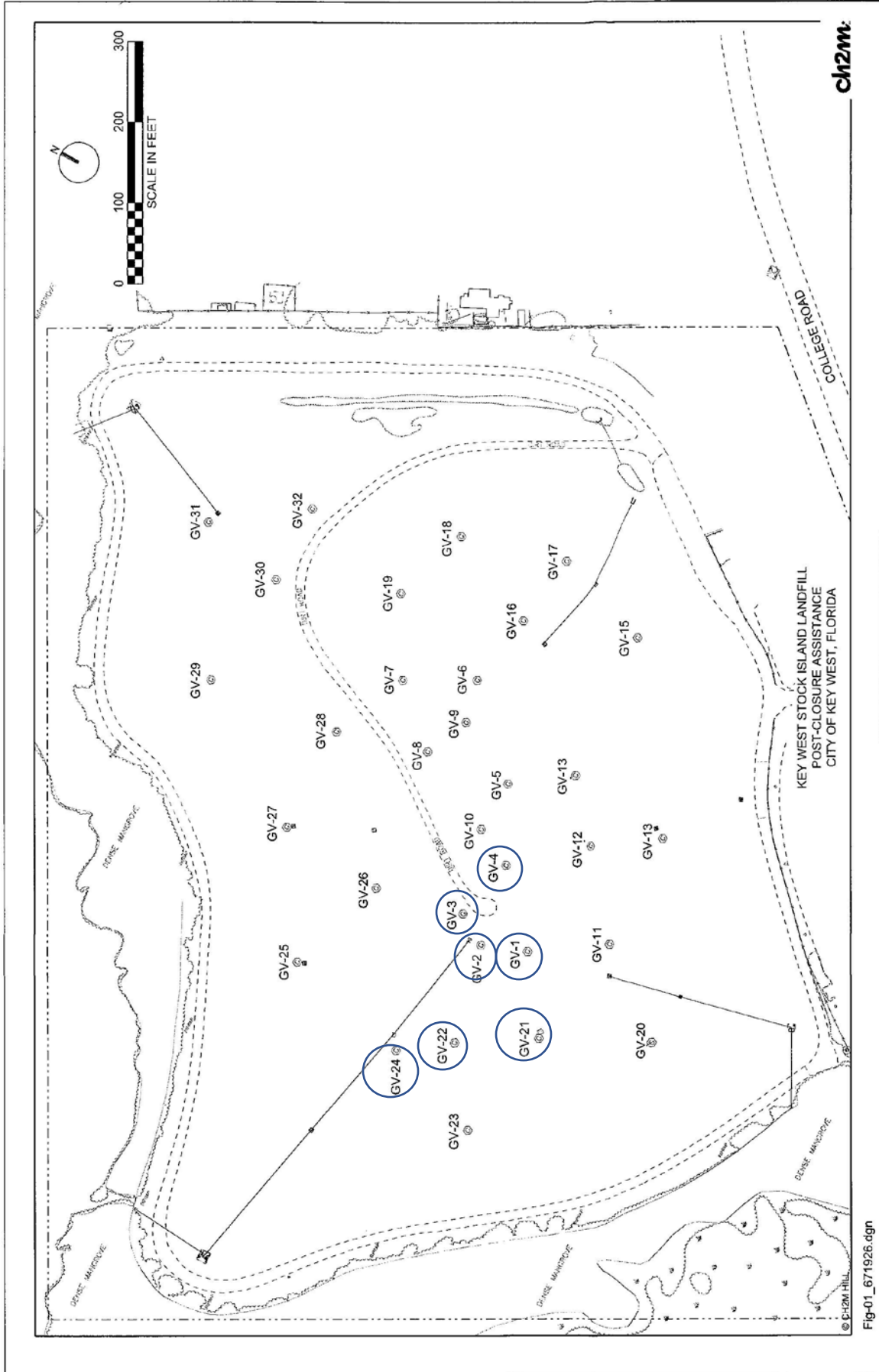


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Report Prepared by:
Lisa Gordon, Environmental Consultant
lisa.gordon@floridadep.gov

Date:
04/26/19