

RCRA COMPLIANCE INSPECTION REPORT

1) Inspector and Author of Report

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2) Facility Information

Clean Harbors Florida LLC
170 Bartow Municipal Airport
Bartow, Florida 33830

EPA ID No.: FLD 980 729 610
Latitude / Longitude: 27°57'05" N / 81°47'09" W
NAICS No.: 562111 – Hazardous Waste Treatment and Disposal
SIC No.: 4953 – Refuse System (Hazardous Waste Treatment and Disposal)

3) Responsible Official

John Bosek, Facility Manager
Clean Harbors Florida LLC
(863) 519-6319

4) Inspection Participants

John Bosek, Clean Harbors Florida, LLC
Wes McDuffie, Operations Manager, Clean Harbors Florida LLC
Elizabeth Knauss, Florida Department of Environmental Protection (FDEP)
Mike Neill, U.S. Environmental Protection Agency
Marty Allen, U.S. Environmental Protection Agency
Javier García, U.S. Environmental Protection Agency

5) Date of Inspection

March 22, 2017

D.E.P.
SOUTHWEST DISTRICT
AUG 07 2017
TAMPA

6) Applicable Regulations

Resource Conservation and Recovery Act (RCRA) Permit Number: 642470-HO-016, which was renewed on October 5, 2016, and expires on December 10, 2021.

Florida Statutes (F.S.) Chapter 403.702 et seq., and the regulations promulgated pursuant thereto and set forth at the Florida Administrative Code (F.A.C.), Chapters 62-710 and 62-730. RCRA Sections 3002, 3005, and 3007 (42 U.S.C. §§ 6922, 6925, and 6927), and the regulations promulgated pursuant thereto at 40 Code of Federal Regulations (C.F.R.) Parts 260-270, 273, 279.

7) Purpose of Compliance Evaluation Inspection

To conduct an unannounced EPA lead compliance evaluation inspection (CEI) to determine the facility's compliance with its RCRA permit and applicable RCRA regulations.

8) Facility Description

Clean Harbors Florida LLC ("CHF" or "the facility") is a RCRA hazardous waste permitted Treatment, Storage and Disposal facility (TSDF) authorized to receive and store hazardous waste from off-site facilities. Hazardous wastes are received in containers (5-gallon to 300-gallon containers) and in bulk (tanker trucks and roll-off containers). Upon receipt at the facility, the waste loads are sampled for verification (fingerprint analysis) and transferred to one of the permitted storage units or to the transfer storage area (10 days or less storage area). In addition, CHF operates a permitted solid waste mix tub solidification unit. The RCRA permit covers the following units:

- Roll-off boxes hazardous waste storage area
- North Building container storage and staging area
- South Building container storage area
- Fuel blending: Tanks T-112 and T-114
- Hazardous waste storage tanks: T-101 through T-110

Sources of hazardous waste managed at the facility include Safety-Kleen branches, tank cleaning services and technical services. Fuel blending activities consist of consolidation of liquid wastes. No hazardous waste grinding or mixing is conducted at the facility. The blended fuel is shipped in bulk (tanker truck or rail car) to cement kilns or hazardous waste incinerators located out of state. In addition to being a TSDF, CHF is a large quantity generator (LQG) of hazardous waste; a hazardous waste transporter; a used oil transfer facility; a large quantity universal waste handler and a PCB waste handler. CHF also operates a 10-day transfer facility for hazardous waste destined for other TSDFs. CHF is authorized to manage characteristic hazardous wastes and listed hazardous wastes (F, K, P, and U) at the facility.

CHF is within the Bartow Municipal Airport Industrial Park, Bartow in Polk County, Florida. CHF has been in operation at this location for more than 25 years. The facility operates Monday through Friday from 7 a.m. to 5 p.m. The facility is surrounded by a chain link fence topped with barbed wire. CHF is connected to the city of Bartow's water and sewer system. There are no

drinking water withdrawal wells located within at least a quarter mile of the facility. The nearest major environmental receptors are unnamed tributaries that lead to the Peace River which is located approximately two miles from the facility.

The permit, Permit/Certification Number 64247-HO-016, to operate a storage and treatment facility, was re-issued on October 5, 2016, and expires on December 10, 2021. The permit was issued under the provisions of Section 403.722, F.S. and Chapters 62-4, 61-160, 62-730-, 62-777, 62-780, F.A.C. Besides requiring compliance with all applicable RCRA regulations, the permit includes the following specific operating conditions:

- North Container Storage Building: storage volume not to exceed 136,400 gallons of hazardous waste (equivalent to 2,480 55-gallon drums)
- South Container Storage Building: storage volume not to exceed 106,920 gallons of hazardous waste (equivalent to 1,944 55-gallon drums)
- Roll-off Boxes: stored only on the fenced and paved road area within the facility boundary and not to exceed 32,320 gallons of hazardous waste (equivalent to four 40-cubic yard roll-off boxes)
- Fuel Blending: tanks T-112 and T-114 with a maximum volume of 780 gallons
- South Tank Farm: Hazardous waste storage tanks T-101 through T-110, with a per tank limit of 6,000 gallons

9) Previous Inspection History

On December 8, 2015, the EPA and FDEP inspected CHF. Based on the observations made during the inspection, the EPA alleged that CHF signed a hazardous waste manifest before it got possession of the hazardous waste load. The EPA alleged that Respondent violated Fla. Admin. Code Ann. r. 62-730.180(l) [40 C.F.R. § 264.71], which is a requirement of Part II Condition 5 of Permit/Certification Number 64247-HO-011. On July 5, 2016, the EPA and CHF resolved the alleged violation in a Consent and Agreement and Final Order, pursuant to section 3008(a) of RCRA.

10) Inspection Findings

Upon arriving to the facility, the inspectors signed the visitor's log, and met Mr. John Bosek, and Mr. Wes McDuffie. After introductions and presentation of credentials, the inspectors explained the purpose of the inspection. The inspectors informed Messrs. Bosek and McDuffie that as part of the inspection, the EPA was going to conduct air monitoring activities in the hazardous waste tank farm to determine if there were volatile organic compound (VOC) emissions from the tanks and/or ancillary equipment. Mr. Bosek indicated that Mr. McDuffie was going to accompany the EPA monitoring team (Messrs. Neill and Allen) and that he was going to accompany the other inspectors.

After a brief description of the facility's operation, the monitoring team proceeded to the tank farm and the inspection toured the facility. The following summarizes the observations made during the inspection:

Field Service Storage Area:

In this unit, CHF stores field equipment and supplies. No hazardous waste was observed in the area.

Maintenance Building:

One universal waste fluorescent lamps accumulation container was observed in this building. The container was properly labeled with universal waste labeling and closed; nevertheless, the container was not marked with the accumulation start date (Photo 1). Mr. Bosek indicated that container was going to be dated with the date of the facility's latest universal waste lamps shipment (December 2016).

North Container Storage Building

The containers storage unit is divided in 17 self-contained cells, designated as cells "A" through "Q." At the time of the inspection all cells were properly identified and appeared to be in good condition. In Cell G, the inspectors observed a pallet of containers that had been labeled by the generator as non-RCRA material. On the pallet were containers of waste Chem-Crest® 275, an ultrasonic corrosive cleaner (Photos 2 and 3). CHF picked up this waste load from Stryker Sustainability Solutions, Inc. on 3/20/2017 and brought it to the facility the same day. Per its permit, CHF has five working days after receipt of a waste load to verify the contents of the incoming containers. Pursuant to permit condition I.8.g(1), CHF has 15 days to report to FDEP the receipt of unmanifested hazardous waste.

In the aisle between Cell P and the loading dock, the inspectors observed six pallets of hazardous wastes ready to be shipped off-site (Photo 4). No deficiencies were observed in the area.

Near Cell G, the inspectors observed two 55-gallon satellite accumulation area (SAA) containers. One container was used for the accumulation of contaminated personal protection equipment (PPE) and the other container was used for the accumulation of aerosol cans. The containers were labeled with the words "Hazardous Waste" and properly closed.

Adjacent to Cell A, the inspectors observed one 55-gallon SAA container that was used for the accumulation of debris generated in the area. The container was labeled with the words "Hazardous Waste" and properly closed.

The quantity of hazardous waste within the North Building was within the capacity limits. The containers were segregated based on waste types [universal, D001 (flammable), D002 (acidic or caustic), D003 (reactive), toxics and PCBs]. All observed containers were closed, labeled, dated and appeared to be in good conditions. All the cells had adequate aisle space except for Cell L (area designated for reactive waste storage). The container pallets in this cell were not properly aligned limiting the aisle space (Photos 5 and 6). The lack of adequate aisle space was corrected the same day of the inspection.

Pursuant to permit condition 1.26.c, CHF shall maintain, at a minimum, aisle space to allow the unobstructed movement of personnel, fire protection, and emergency response equipment to any area of the Facility.

South Container Storage Building

The south building houses a container storage unit, a less than three days staging area and the fuel blending operation. The container storage unit is along the south wall of the building. It is divided into 18 rows and has a permitted capacity of 106,920 gallons (equivalent to 1,944 55-gallon drums). No deficiencies were noted in the storage unit.

The north west corner of the building is designated in the permit as a hazardous waste containers staging area (temporary storage limited to three days). Hazardous waste generated in the staging area is accumulated in a 55-gallon SAA container. No deficiencies were noted in the staging area.

The north east corner of the building is designated as the Fuel Blending Area. This area is used to pump the waste from the containers to the designated storage tank or to the two fuel blending tanks (T-112 and T-114). Each blending tank has a 980 gallon capacity. No fuel blending operations were being conducted during the inspection. Hazardous wastes generated in the area consists of solids retained in the pumps strainer, sample residues from compatibility tests and aerosol cans. These waste streams are accumulated in 55-gallon SAA containers. No deficiencies were noted in this area during the inspection.

Tank Farm

The tank farm has 10 aboveground storage steel tanks. Each tank has a maximum storage limit of 6,000 gallons (Photo 7). During the inspection, the EPA surveyed the tanks and ancillary equipment for fugitive organic emissions with an infrared camera, FLIR® GF-320. In addition, the EPA monitored roughly 170 components of the tank system with a Thermo® Toxic Vapor Analyzer (TVA)-2020 using EPA Method 21. The highest TVA readings were found at the Pressure Relief Devices (PRDs) of tanks T-102, T-101, T-108 and T-109. Fugitive organic emissions of the PRD (tagged 5031) on tank T-102 was initially measured as 830 ppm. The FLIR® GF-320 was used to locate the source of the organic vapors which was identified to be a defective gasket (Photos 8 & 9). Replicate measurements of the PRD (5031) was 1.06% or 10,600 ppm, and 1.1% or 11,000 ppm. The next highest TVA reading was 4,000 ppm and a replicate reading of 4,800 ppm for the PRD tagged 5001 on tank T-101. Also, TVA readings for tanks T-108 and T-109 were 700 ppm and 800 ppm, respectively. The complete air monitoring report is attached to this inspection report. All valves, pumps and threaded connections were tagged and inspected in accordance with the permit. After the inspection, CHF documented that it had repaired the releases.

Laboratory

The facility has a laboratory on-site that generated small amounts of various wastes. The inspectors observed three SAA containers for flammable liquids, flammable solids and flammable corrosives. The containers were closed and properly labeled.

Records Review

The facility's contingency plan, personnel training, weekly inspections, and manifests were reviewed during the inspection. At the time of the inspection, CHF had 3,606 containers in storage. The most recent hazardous waste training was conducted in October 2016. Hazardous waste tanks integrity tests were conducted in March 2017. The thinnest wall thickness measurement was 0.182". This reading was detected in the eastern side of tank T-103. The thickness at this location is reaching the minimum wall thickness of 0.1801 inches, established in the permit.

Review of the air monitoring log for the hazardous waste tank system revealed the following organic emission exceedances:

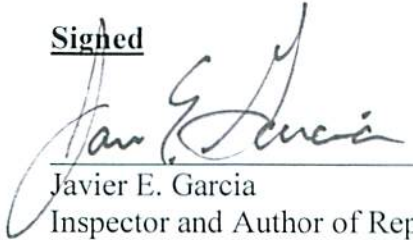
Area	Equipment Type	Inspect Point	Tag Number	Location	Date	Reading ppm
Tank Farm T-100	Valve-LL	5031	C	TOP OF CRUDE TANK T-102	1/31/2017	504
Tank Farm T-100	Valve-LL	5031	C	TOP OF CRUDE TANK T-102	4/28/2016	1026
Tank Farm T-100	Valve-LL	5031	C	TOP OF CRUDE TANK T-102	6/30/2016	754
Tank Farm T-100	Valve-LL	5031	C	TOP OF CRUDE TANK T-105	6/30/2016	921
Tank Farm T-100	Valve-LL	5031	C	TOP OF CRUDE TANK T-105	7/29/2016	871
Tank Farm T-100	Valve-LL	5031	C	TOP OF CRUDE TANK T-110	9/29/2016	527
Tank Farm T-100	Valve-LL	5031	C	TOP OF CRUDE TANK T-103	11/29/2016	593
Tank Farm T-100	Valve-LL	5031	C	TOP OF CRUDE TANK T-105	6/30/2016	921

Following the site visit, the EPA sent an email to Mr. Bosek asking for copies of the records documenting the repairs of the identified organic emission readings above 500 ppm. On July 5, 2017, Mr. Bosek sent an email to the EPA indicating that "The facility discovered that its electronic LDR scheduling, inspection and tracking system had been set-up for tank PRVs to indicate an organic vapor leak at 10,000ppm, and auto issue repair work orders when that level was exceeded. Therefore, no work orders were issued at a reading of 500ppm."

Pursuant to 40 C.F.R. § 264.1084(c), as referred to by permit condition V.3, pressure relief equipment shall be designed to operate with no detectable organic emissions when the device is secured in the closed position.

Pursuant to permit condition V.5, observed tanks' defects will be repaired as soon as practicable, but not later than 15 calendar days after it is detected, unless repairs must be delayed until the unit is shut down, and the tank is emptied. A first attempt at repair will be made within 5 calendar days after a leak is detected.

11) Signed


Javier E. Garcia
Inspector and Author of Report

7/21/17
Date

12) Concurrence and Approval


Alan A. Annicella, Chief
Hazardous Waste Enforcement
and Compliance Section

7/26/17
Date

**EPA Photos – RCRA CEI
March 22, 2017
Clean Harbors Florida LLC
170 Bartow Municipal Airport
Bartow, Florida 33830
EPA ID No.: FLD 980 729 610**



Photo: 1: Undated universal waste lamps accumulation container in the Maintenance Shop.
Photo taken by Javier Garcia on March 22, 2017, at 10:46 am.



Photo 2: Pallet of containers labeled a non-RCRA material that included containers of Chem-Crest® 275 (D002). Photo taken in Cell G by Javier Garcia on March 22, 2017, at 11:10 am.



Photo 3: Pallet of containers labeled a non-RCRA material that included containers of Chem-Crest® 275 (D002). Photo taken in Cell G by Javier Garcia on March 22, 2017, at 11:10 am.



Photo 4: Pallet of containers ready for shipment. The pallets were between Cell P and the loading dock. Photo taken by Javier Garcia on March 22, 2017, at 11:14 am.



Photo 5: Limited aisle space at Cell L of the North Container Storage Area. Photo taken by Javier Garcia on March 22, 2017, at 11:54 am.

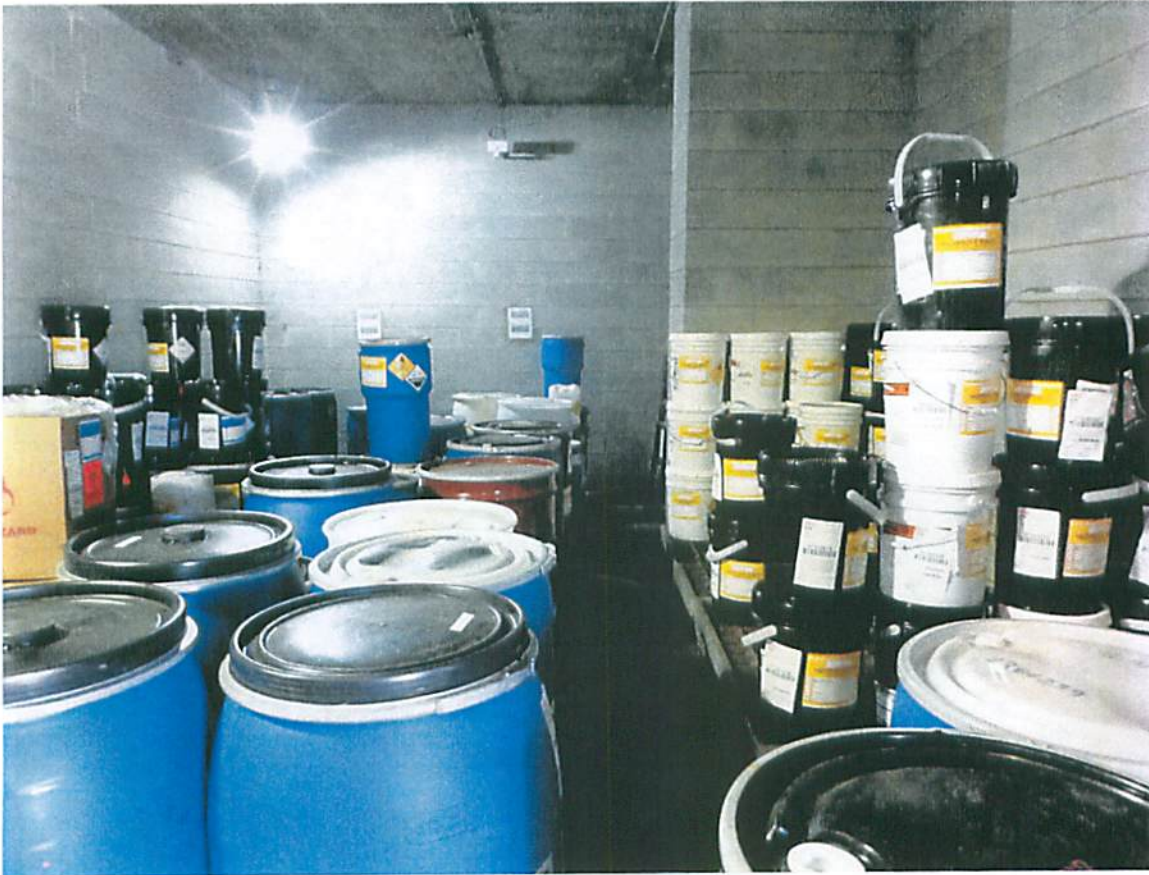


Photo 6: Limited aisle space at Cell L of the North Container Storage Area. Photo taken by Javier Garcia on March 22, 2017, at 11:58 am.



Photo 7: View of hazardous waste storage tanks T-101 (far right) through T-105 (far left). Each tank has a permitted capacity of 6,000 gallons. Photo taken by Mike Neil on March 22, 2017, at 10:42am.

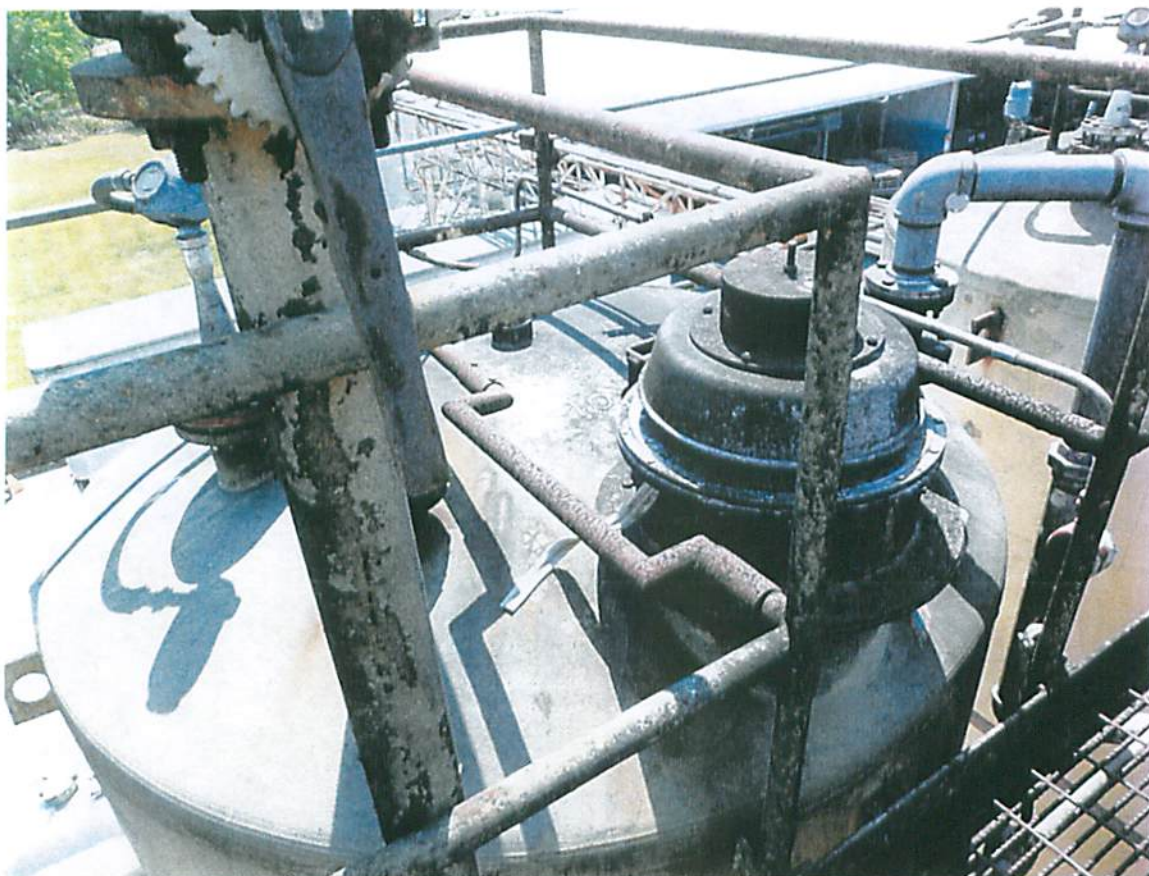


Photo 8: View of the top section of hazardous waste storage tank T-102. The apparatus on the right of the tank is the tank's pressure relief device. This device was found to be leaking organic vapors at the time of the inspection. Photo taken by Javier García on March 22, 2017, at 2:40 pm.

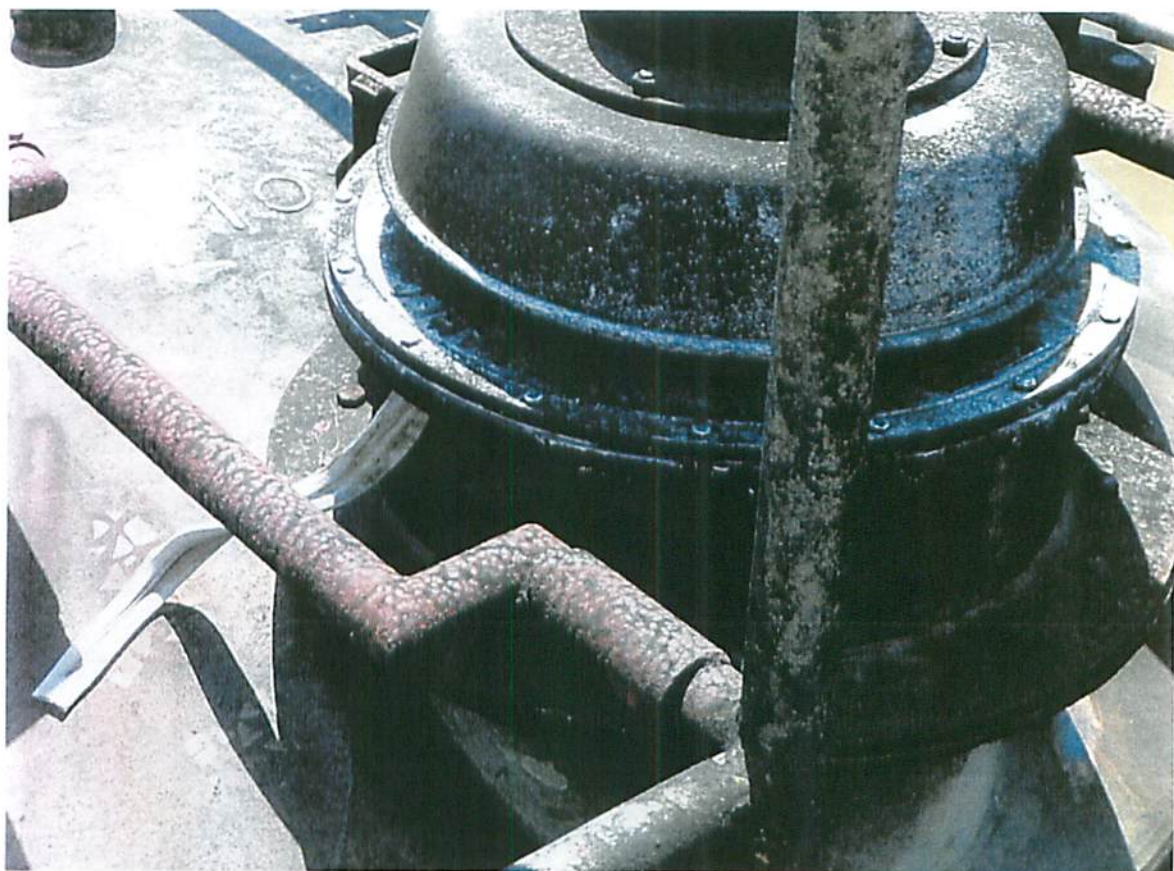


Photo 9: Close-up of tank T-102's pressure relief device that was found to be leaking organic vapors at the time of the inspection. Photo taken by Javier García on March 22, 2017, at 2:40 pm.



Photo 10: Satellite accumulation containers for hazardous waste generated at the facility's laboratory. Photo taken by Javier García on March 22, 2017, at 2:59 pm.

EPA CEI Report

Attachment 1

Clean Harbors Florida LLC

SESD's RCRA Organic Emission Monitoring Report

170 Bartow Municipal Airport, Bartow, Florida 33830

Project Date: March 22, 2017

Report Date: July 12, 2017



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4**

Science and Ecosystem Support Division
Field Services Branch
980 College Station Road
Athens, Georgia 30605-2720

July 12, 2017

4SESD-FSB

MEMORANDUM

SUBJECT: Clean Harbors Florida, LLC
SESD's RCRA Organic Emissions Monitoring Report
SESD Project ID - 17-0282

FROM: Mike Neill, Physical Scientist *M Neill*
Field Services Branch
Science and Ecosystem Support Division

THRU: Mike Bowden, Chief *M Bowden*
Enforcement Section
Science and Ecosystem Support Division

TO: Javier Garcia, RCRA Inspector
Enforcement and Compliance Branch
Resource Conservation & Restoration Division (RCRD)

Attached is the Final Report for the RCRA Organic Emission Monitoring investigation that was conducted at the Clean Harbors Florida, LLC facility in Bartow, FL on March 22nd, 2017. If you have any questions concerning the investigation, please call me at (706) 355-8614 or email me at neill.mike@epa.gov.

Attachment:

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Project ID: 17-0282

Clean Harbors Florida LLC

SESD's RCRA Organic Emission Monitoring Report

170 Bartow Municipal Airport,
Bartow, Florida 33830

Project Date: March 22, 2017

Report Date: July 12, 2017



Science & Ecosystem Support Division

Project Leader: Mike Neill

Enforcement Section

Field Services Branch

Science & Ecosystem Support Division

USEPA – Region 4

980 College Station Road

Athens, Georgia 30605-2720

The activities depicted in this report are accredited under the US EPA Region 4 Science and Ecosystem Support Division ISO/IEC 17025 accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation AT-1644.

Requestor:

Javier Garcia, RCRA Inspector

Enforcement and Compliance Branch (ECB)

Resource Conservation and Restoration Division (RCRD)

Approvals:

SESD Project Leader:



Mike Neill
Enforcement Section
Field Services Branch

7-12-17

Date

Approving Official:



Mike Bowden, Chief
Enforcement Section
Field Services Branch

7/12/17

Date

Clean Harbors Florida LLC
SESD's RCRA Organic Emission Monitoring Report

I. INTRODUCTION

EPA's Office of Enforcement and Compliance Assurance (OECA) has implemented a National Enforcement Initiative for fiscal years 2017-19: *Reducing Risks of Accidental Releases at Industrial and Chemical Facilities*. Hazardous waste air emissions present a potential risk to nearby communities and facility employees. Organic air emissions may present increased fire or explosion risks, and volatile organic air emissions contribute to ground level ozone. The goal of the National Initiative is to reduce the risks of accidents and exposures by ensuring that facilities are monitoring for and addressing fugitive organic air emissions. EPA will be inspecting generator and treatment, storage and disposal facilities (TSDFs) to determine that facilities are complying with Resource Conservation and Recovery Act (RCRA) regulations 40 CFR §264 and §265, Subpart AA, Subpart BB and Subpart CC, and addressing volatile organic emissions from hazardous waste tanks and ancillary equipment, surface impoundments and containers.

On March 22, 2017, Science and Ecosystem Support Division (SESD) personnel conducted air monitoring to determine if there were volatile organic compound (VOC) emissions from hazardous waste tanks and/or ancillary equipment at the Clean Harbors Florida LLC (CHF) facility in Bartow, Florida. This investigation was requested by the Resource Conservation and Restoration Division (RCRD), Enforcement and Compliance Branch (ECB), and was part of a RCRA inspection conducted by Javier Garcia.

The following personnel were present during the investigation:

PERSONNEL	ORGANIZATION	PHONE
Mike Neill	USEPA, SESD, Project Leader	706-355-8614
Marty Allen	USEPA, SESD, Safety Officer/Air monitoring	706-355-8651
Javier Garcia	USEPA, RCRD, Inspector	404-562-8616
Elizabeth Knauss	Florida, Department of Environmental Protection(FDEP)	813-470-5902
Shannon Kennedy	FDEP	813-470-5789
John Bosek	CHF, Plant General Manager	863-559-1610
Wes McDuffie	CHF, Operations Manager	863-533-6111

II. SUMMARY

During SESD's investigation, air monitoring with a Thermo Scientific™ Toxic Vapor Analyzer (TVA2020) found fugitive organic emissions near four Pressure Relief Devices (PRDs) that exceeded the 500 parts per million (ppm) limit in CHF's hazardous waste permit. The highest TVA reading for each tank's PRD was; 11,000 ppm for tank T-102, 4,800 ppm for tank T-101, 700 ppm for tank T-108 and 800 ppm for tank T-109. Also, SESD reviewed some of CHF's calibration logs and recommends that more detail information be recorded to demonstrate that EPA method 21 is being used for the RCRA organic emission monitoring at the facility.

III. BACKGROUND

The Clean Harbors Florida facility is located within Bartow Municipal Airport Industrial Park, Bartow, Polk County, Florida. Clean Harbors Florida (CHF) is a Large Quantity Generator (LQG) and is also a fully permitted

Part B Treatment, Storage and Disposal Facility (TSDF) for hazardous waste containers and tanks storage (Permit Number: 64247-HO-011). CHF offers drum pickup and disposal, fuel blending, emergency response, lab packing, and transportation services. In addition, CHF is also a registered hazardous waste, used oil, used oil filter and universal waste transfer facility. CHF accepts PCB and non-PCB lighting ballasts for sorting and shipment to other recycling facilities. The facility no longer reclaims solvent on site.

CHF operates numerous hazardous waste tanks which are subjected to 40 CFR §264, Subpart BB and Subpart CC. Tanks T-112 and T-114 are used for fuel blending. Tanks T-101 to T-110 are used for storing hazardous wastes, have capacities of 6,000 gallons each, and are located in the south tank farm.

RCRD ECB requested SESD to conduct a field investigation to determine if there are VOC emissions from the CHF hazardous wastes tanks (Subpart CC) and/or ancillary equipment (Subpart BB).

IV. DISCUSSION OF FIELD ACTIVITIES AND MEASUREMENTS

On March 22, 2017 SESD personnel arrived at the Clean Harbors facility at about 9:30 AM, and met with USEPA, FDEP and CHF representatives. After Mr. Garcia explained the nature of EPA's inspection, the CHF representatives provided an overview of the operations, processes and facility. On a monthly basis, CHF staff visually monitors and uses a MSA® Sirius MultiGas Detector to monitor their hazardous waste tanks and equipment for leaks. At approximately 10:30 AM, Mr. McDuffie accompanied SESD personnel to areas of the plant which are subjected to 40 CFR §264, Subpart BB and Subpart CC.

While at the Vapor Balance, Transfer Station, Tank Farm and Tank Truck Loading areas, SESD surveyed the tanks and ancillary equipment for fugitive organic emissions with an infrared camera, FLIR® GF-320. Appendix A contains SESD's FLIR® photo log with photos taken during the investigation. In addition, a TVA2020 was used to monitor roughly 170 components associated with the ten hazardous waste tanks and ancillary equipment by EPA Method 21 to determine if there were fugitive organic vapor emissions. The TVA2020 was calibrated with methane. No fuel blending operations were being conducted during the investigation. Appendix B contains SESD's Leak Detection Monitoring logs.

The highest TVA readings observed occurred at some of the Pressure Relief Devices (PRDs) on top of the hazardous waste tanks. Air monitoring found four of the tank's PRDs, T-102, T-101, T-108 and T-109, exceeded the 500 ppm above background limit listed in Section S of the CHF hazardous waste permit. Fugitive organic emissions of the PRD (tagged 5031) on tank T-102 was initially measured as 830 ppm. The FLIR® GF-320 was used to locate the source of the organic vapors which was identified to be a defective gasket. A video documenting the release is in Appendix A. Replicate measurements of the PRD (5031) was 1.06% or 10,600 ppm, and 1.1% or 11,000 ppm. The next highest TVA reading was 4,000 ppm and a replicate reading of 4,800 ppm for the PRD tagged 5001 on tank T-101. Also, TVA readings for tanks T-108 and T-109 were 700 ppm and 800 ppm, respectively. CHF staff scheduled repairs for the PRDs with detected fugitive emissions for the next morning.

V. METHODOLOGY

SESD personnel used a TVA2020 calibrated with methane to monitor the air surrounding the hazardous waste tanks and ancillary equipment by EPA Method 21 to determine if there are organic vapor leaks. All readings are reported as concentrations or ppm of methane. Additionally, several of the components were surveyed with an infrared camera, FLIR® GF-320, for fugitive organic gas emissions.

VI. FACILITY CALIBRATION LOGS REVIEW


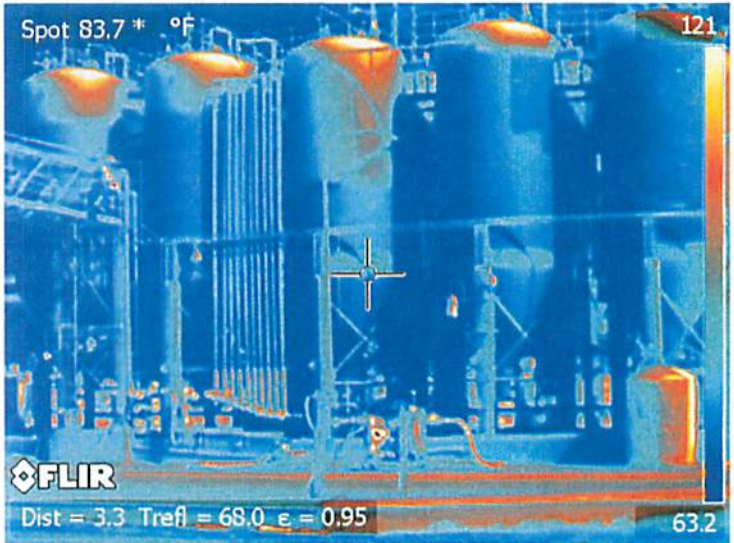
After SESD completed RCRA organic emission monitoring at the facility on March 22nd, CHF forwarded its 2016 & 2017 Calibration Logs (Appendix C) for the MSA Sirius® Multigas Detector (serial number: A3-2713) for EPA to review. The CHF's calibration logs should be more detailed to document the monitoring program adherence to EPA method 21 as specified in 40 CFR § 264.1063 (c) and CHF's hazardous waste permit (Section S, 5.0). To demonstrate compliance with EPA method 21, the following data should be recorded in CHF's Calibration Logs:

- Daily calibration – When monitoring occurs over two days or monitoring occurs after a repair, the instrument should be calibrated prior to monitoring and documented in the log.
- Calibration gas concentration should be near the leak definition concentration and be recorded in the log record.
- Two gas mixtures – Both a zero-air gas and calibration gas should be used for “Instrument Performance Evaluation” in Section 8.1 of EPA method 21 to determine response factors, calibration precision and response times.
- Each leak detected and repair made needs to be recorded.

APPENDIX A

SESD's FLIR® PHOTO & VIDEO LOG

SESD's FLIR® PHOTO & VIDEO LOG by M. Neill -- 03/22/2017

FILE	DESCRIPTION	PHOTO
DC.0024.jpg	<p>Tank Farm: Hazardous Waste Tanks –</p> <p>T-101 (far right) through T-105 (far left)</p> <p>Each tank has a capacity of 6,000 gallons</p> <p>Time: 10:42</p>	
IR-0025.jpg	<p>Infrared image of hazardous waste tanks</p> <p>T-101 – T-105: The middle tank T-103 is approximately ½ full while all other tanks are full.</p> <p>Time: 10:44</p>	

SESD's FLIR® PHOTO & VIDEO LOG by M. Neill -- 03/22/2017

FILE	DESCRIPTION	PHOTO
MOV-0019.mp4	Volatile organic emissions from Pressure Relief Device (5031) on top of tank T-102. Time: 14:22	

APPENDIX B

SESD's LEAK DETECTION MONITORING

ORGANIC AIR EMISSIONS MONITORING LOG
Clean Harbors - 03/22/17

Process Areas: Vapor Balance and Transfer Station

Component	ID #	TVA Background Reading* (ppm)	TVA Peak Reading* (ppm)	Time	Comments
Valve	2743	-1	BG	10:50	Vapor balance - Spring valve
Connector	2742	-1	BG	10:51	
Flange	2745	-1	BG	10:51	
Connector	2739	-1	BG	10:52	
Connector	2738	-1	BG	10:53	
Gauge	2737	-1	BG	10:54	
Connector	2736	-1	BG	10:54	
Flange	4123	-1	BG	10:55	
Flange	4130	-1	BG	10:55	
Flange	4121	-1	BG	10:56	
Flange	4122	-1	BG	10:56	
Flange	F4128	-1	BG	10:57	
Flange	F4129	-1	BG	10:57	
Valve	2735	-1	BG	10:58	Sample port
Connector	158	-1	BG	11:09	Transfer Station
Connector	5135	-1	BG	11:09	T-105
Connector	5285	-1	BG	11:10	T-110
Valve	5165	-1	BG	11:10	T-106
Valve	6005	-1	BG	11:10	T-101
Valve	5195	-1	BG	11:11	T-107
Valve	5225	-1	BG	11:11	T-108
Valve	5255	-1	BG	11:12	T-109
Valve	5070	-1	BG	11:12	T-103
Valve	5105	-1	BG	11:13	T-101
Connector	416	-1	BG	11:13	

*- All readings are reported as concentrations or ppm of methane. BG - TVA reading same as background

ORGANIC AIR EMISSIONS MONITORING LOG
Clean Harbors - 03/22/17

Process Areas: Transfer Station

[illegible]

*- All readings are reported as concentrations or ppm of methane. BG - TVA reading same as background

ORGANIC AIR EMISSIONS MONITORING LOG
Clean Harbors - 03/22/17

Process Areas: Tank Farm

Component	ID #	TVA Background Reading* (ppm)	TVA Peak Reading* (ppm)	Time	Comments
Valve	5300	0	BG	11:20	Tank Farm T-110
Valve	5295	0	BG	11:23	
Valve	5320	0	BG	11:25	
Flange	380	0	BG	11:25	T-105
Valve	5145	0	BG	11:26	
Valve	5152	0	BG	11:28	
Flange	1008	0	BG	11:29	Bottom tank
Flange	1009.1	0	BG	11:30	
Valve	161	0	BG	11:31	
Connector	162	0	BG	11:32	
Valve	5155	0	BG	11:33	
Flange	1007.1	0	BG	11:35	T-104
Flange	1086	0	BG	11:35	
Valve	5123	0	BG	11:36	
Connector	128	0	BG	11:37	
Valve	5095	0	BG	11:40	T-103
Flange	1005.1	0	BG	11:41	
Valve	509.2	0	BG	11:42	
Flange	1004	0	BG	11:43	
Valve	5095	0	BG	11:44	
Connector	5094	0	BG	11:45	
Valve	5380	0	BG	11:46	
Flange	73	0	BG	11:47	
Flange	74	0	BG	11:48	T-102
Valve	5045	0	BG	11:48	

*- All readings are reported as concentrations or ppm of methane. BG - TVA reading same as background

ORGANIC AIR EMISSIONS MONITORING LOG
Clean Harbors - 03/22/17

Process Areas: Tank Farm

Component	ID #	TVA Background Reading* (ppm)	TVA Peak Reading* (ppm)	Time	Comments
Valve	5052	0	BG	11:50	Tank Farm
Flange	72	0	BG	11:51	
Flange	1002	0	BG	11:52	T-102 bottom
Flange	1002.1	0	BG	11:53	
Flange	1000	0	BG	11:54	T-101 bottom
Flange	1000.1	0	BG	11:55	
Valve	5021	0	BG	11:56	
Valve	5015	0	BG	11:57	
Connector	11	0	BG	11:58	
Connector	196	0	BG	11:59	T-106
Valve	5170	0	BG	12:00	
Valve	5182	0	BG	12:01	
Flange	1010	0	BG	12:02	T-106 bottom
Flange	1011	0	BG	12:03	T-107 bottom
Valve	5212	0	BG	12:04	
Flange	1013	0	BG	12:06	T-108 bottom
Valve	5242	0	BG	12:07	
Valve	5230	0	BG	12:09	
Flange	296	0	BG	12:11	T-109
Valve	5265	0	BG	12:12	
Flange	1015	0	BG	12:15	T-109 bottom
Valve	5272	0	BG	12:16	

*- All readings are reported as concentrations or ppm of methane. BG - TVA reading same as background

ORGANIC AIR EMISSIONS MONITORING LOG
Clean Harbors - 03/22/17

Process Areas: Tank Farm Top

Component	ID #	TVA Background Reading* (ppm)	TVA Peak Reading* (ppm)	Time	Comments
PRD	5131	0.1	13	13:47	Tank Farm Top - T-105 -Pressure Relief Device (PRD)
Plug	176	0.1	BG	13:49	
Flange	1044	0.1	BG	13:54	
Flange	1043	0.1	BG	13:55	
Connector	174	0.1	BG	13:56	
Connector	173	0.1	BG	13:57	
Flange	1046	0.1	23	13:59	
Valve	5103	0.1	BG	14:00	T-104
PRD	5101	0.1	63	14:01	
Plug	140	0.1	BG	14:02	
Connector	143	0.1	BG	14:03	
Flange	1037	0.1	BG	14:04	
Flange	1038	0.1	BG	14:05	
Valve	1084	0.1	BG	14:05	
Connector	138	0.1	BG	14:06	
Connector	137	0.1	BG	14:06	
PRD	5061	0.1	31	14:09	T-103
Flange	1034	0.1	BG	14:10	
Flange	1035	0.1	BG	14:10	
Connector	102	0.1	BG	14:11	
Connector	101	0.1	BG	14:11	
Connector	106	0.1	BG	14:12	
Flange	1031	0.1	BG	14:12	
Connector	109	0.1	BG	14:13	
Flange	1093	0.1	BG	14:13	
Flange	1032	0.1	BG	14:14	

*- All readings are reported as concentrations or ppm of methane. BG - TVA reading same as background

ORGANIC AIR EMISSIONS MONITORING LOG
Clean Harbors - 03/22/17

Process Areas: Tank Farm Top

Component	ID #	TVA Background Reading* (ppm)	TVA Peak Reading* (ppm)	Time	Comments
Connector	63	0.1	BG	14:30	Tank Farm Top – T-102
Connector	64	0.1	BG	14:30	
Flange	1024	0.1	BG	14:27	
PRD	5031	0.1	830	14:14	
PRD	5031	0.1	1.06%	14:28	Replicate; Alarm
PRD	5031	0.1	1.1%	14:29	Replicate; Alarm
Valve	5033	0.1	BG	14:30	
Flange	1029	0.1	BG	14:31	T-101
Flange	1098	0.1	BG	14:32	
Connector	28	0.1	BG	14:32	
PRD	5001	0.1	4000	14:33	T-101
Plug	31	0.1	BG	14:38	
Connector	30	0.1	BG	14:39	
Flange	1082	0.1	BG	14:40	
PRD	5001	0.1	4800	14:43	Replicate T-101 PRD 5001
PRD	5161	0.1	BG	14:44	T-106
Flange	1049	0.1	BG	14:45	
Flange	1050	0.1	BG	14:46	
Flange	1020	0.1	BG	14:46	
Connector	215	0.1	BG	14:47	
PRD	5191	0.1	BG	14:49	T-107
Plug	247	0.1	BG	14:50	
Connector	250	0.1	BG	14:50	
Flange	1079	0.1	BG	14:51	
Flange	1055	0.1	BG	14:53	

*- All readings are reported as concentrations or ppm of methane. BG - TVA reading same as background

ORGANIC AIR EMISSIONS MONITORING LOG
Clean Harbors - 03/22/17

Process Areas: Tank Farm Top

Component	ID #	TVA Background Reading* (ppm)	TVA Peak Reading* (ppm)	Time	Comments
PRD	5221	0.1	700	14:55	Tank Farm Top – T-108
Connector	276	0.1	BG	14:56	
Flange	1064	0.1	BG	14:56	
Flange	1065	0.1	BG	14:57	
Connector	281	0.1	BG	14:58	
Flange	1078	0.1	BG	14:58	
PRD	5251	0.1	800	15:00	T-109
Flange	1069	0.1	BG	15:01	
Flange	1677	0.1	BG	15:01	
Connector	313	0.1	BG	15:02	
Connector	308	0.1	BG	15:03	
Flange	1067	0.1	BG	15:03	
PRD	5281	0.1	BG	15:04	T-110
Connector	347	0.1	BG	15:05	
Flange	1076	0.1	BG	15:05	
Connector	350	0.1	BG	15:06	
Connector	345	0.1	BG	15:06	
Flange	1071	0.1	BG	15:06	
Flange	1072	0.1	BG	15:07	

*- All readings are reported as concentrations or ppm of methane. BG - TVA reading same as background

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Process Areas: Tank Truck Loading

Component	ID #	TVA Background Reading* (ppm)	TVA Peak Reading* (ppm)	Time	Comments
Pump	7343	0.1	10	15:11	Pumping from T-107
Connector	125	0.1	BG	15:12	Hose
Valve	7320	0.1	BG	15:13	Filter
Valve	7330	0.1	BG	15:14	
Valve	7355	0.1	BG	15:15	
Flange	2061	0.1	BG	15:15	
Valve	7405	0.1	BG	15:16	
Valve	7395	0.1	BG	15:16	
Connector	128	0.1	BG	15:17	
Connector	964	0.1	BG	15:17	
Connector	465	0.1	BG	15:17	
Valve	6221	0.1	BG	15:18	
Valve	6222	0.1	BG	15:18	
Connector	No tag	0.1	BG	15:19	Hose to pump
Valve	6050	0.1	BG	15:19	
Valve	6055	0.1	BG	15:20	
Connector	395	0.1	BG	15:20	
Valve	5375	0.1	BG	15:20	
Valve	5376	0.1	BG	15:21	
Valve	5370	0.1	BG	15:21	

*- All readings are reported as concentrations or ppm of methane. BG - TVA reading same as background

APPENDIX C

CLEAN HARBORS FLORIDA - CALIBRATIONS LOG
(2016 – 2017)

2016 Calibration Log

[illegible]

CALIBRATION GAS

1. ISOBUTYLENE - LOT # 100578 EXP: N/A
2. H2S - LOT# 708936 EXP: 12/10

MODEL MSA SISRIUS – SERIAL NUMBER A3-2713

2017 Calibration Log

[illegible]

CALIBRATION GAS

1. ISOBUTYLENE - LOT # 100973 EXP: N/A
2. H2S - LOT# 968938 EXP: N/A

MODEL MSA SISRIUS – SERIAL NUMBER A3-2713