

Jon Niermann, *Chairman*
Emily Lindley, *Commissioner*
Toby Baker, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

November 16, 2018

Mr. Burgess Stengl
Environmental Manager
Blue Ridge Landfill TX LP
P O Box 879
Fresno, Texas 77545

Re: Investigation Request at:
Blue Ridge Landfill, 2200 FM 521 Rd, Fresno (Fort Bend County)
Regulated Entity No.: 102610102
TCEQ MSW Permit No.: 1505A
Investigation No.: 1524120

Dear Mr. Stengl:

The Texas Commission on Environmental Quality (TCEQ) Houston Region Office received on October 10, 15 and 16, 2018, requests for assistance regarding the odor at the above-referenced facility. In response to this request, Ms. Reyna L. Loosmore and Mr. Carlos Griggs of this office conducted an investigation on October 18, 2018. No violations are being alleged as a result of the investigation.

For more information about our complaint process, you may access the publication GI-278: *Do You Want to Make an Environmental Complaint? Do You Have Information or Evidence?* on our website at www.tceq.texas.gov.

We appreciate your assistance in this matter and your interest in protecting the quality of our environment. If you have any questions concerning these findings, or if we can be of further assistance, please contact Ms. Loosmore at this office (713) 767-3706.

Sincerely,

A handwritten signature in cursive script that reads "Alma L. Jefferson".

Alma L. Jefferson, Team Leader
Waste Section
Houston Region Office

ALJ/RLL/ug

MSW PA_1505A_20181018_Investigation
Texas Commission on Environmental Quality
Investigation Report

The TCEQ is committed to accessibility. If you need assistance in accessing this document, please contact oce@tceq.texas.gov

Customer: Blue Ridge Landfill TX, LP
Customer Number: CN602820599

Regulated Entity Name: BLUE RIDGE LANDFILL

Regulated Entity Number: RN102610102

Investigation # 1524120

Incident Numbers

294180 294514
294182 294259
294179

Investigator: REYNA LOOSMORE

Site Classification TYPE 1

Conducted: 10/18/2018 -- 10/24/2018

NAIC Code: 562212
NAIC Code: 486210
SIC Code: 4922
SIC Code: 4953
SIC Code: 1521

Program(s): MUNICIPAL SOLID WASTE DISPOSAL

Investigation Type: Compliance Investigation

Location: LOCATED ON 2200 FM 521

Additional ID(s): 1505A

Address: 2200 FM 521 RD,
FRESNO, TX , 77545

Local Unit: REGION 12 - HOUSTON

Activity Type(s): MSWCMP - Investigation of MSW
complaint

Principal(s):

| Role | Name |
|-------------|---------------------------|
| RESPONDENT | BLUE RIDGE LANDFILL TX LP |

Contact(s):

| Role | Title | Name | Phone |
|-------------------------------------|--------------------------|-------------------|-----------------------|
| PARTICIPATED IN | ENVIRONMENTAL MANAGER | MR BURGESS STENGL | Office (713) 676-7669 |
| PARTICIPATED IN | DIVISION MANAGER | MR MARK MEADOWS | Phone (281) 668-9739 |
| REGULATED ENTITY CONTACT | ENVIRONMENTAL MANAGER | MR BURGESS STENGL | Office (713) 676-7669 |
| REGULATED ENTITY MAIL CONTACT | ENVIRONMENTAL MANAGER | MR BURGESS STENGL | Office (713) 676-7669 |

BLUE RIDGE LANDFILL - FRESNO

10/18/2018 to 10/24/2018 Inv. # - 1524120

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Other Staff Member(s):

| Role | Name |
|--------------|-------------------|
| Investigator | CARLOS GRIGGS |
| QA Reviewer | BETHANY BATCHELOR |
| Supervisor | ALMA JEFFERSON |

Associated Check List

| <u>Checklist Name</u> | <u>Unit Name</u> |
|------------------------------|-------------------------|
| MSW COMPLAINT INVESTIGATION | 1505A Complaint |

Investigation Comments:

INTRODUCTION

On October 10, 15 and 16, 2018, the Texas Commission on Environmental Quality (TCEQ) Houston Region Office Waste Section received five (5) complaints alleging odors from Blue Ridge Landfill (BRL) located at 2200 FM 521 Road, Fresno (Fort Bend County), Texas 77545. The odors were alleged to have occurred on October 10, 14 and 15, 2018.

On October 18, 2018, Ms. Reyna L. Loosmore and Mr. Carlos Griggs, Environmental Investigators of the TCEQ Houston Region Office, conducted an odor survey and an unannounced on-site Odor Complaint Investigation at BRL and in the surrounding area.

BACKGROUND

A Notice of Enforcement was issued to BRL on October 21, 2016 for failure to prevent nuisance odor conditions. On July 12, 2017, Agreed Order Docket No. 2016-1923-AIR-E was signed by the TCEQ. By letter dated April 10, 2018, the TCEQ Enforcement Division approved BRL Odor Control Plan, thus requiring BRL to implement all provisions of the plan in accordance with the approved schedule.

GENERAL FACILITY AND PROCESS INFORMATION

BRL is a Type I landfill which is authorized to operate by TCEQ Municipal Solid Waste (MSW) Permit No. 1505A.

The landfill is authorized to dispose of MSW including household solid waste, commercial solid waste, construction and demolition waste, and yard waste; Class 1, Class 2, and Class 3 non-hazardous industrial solid waste; and certain special wastes. Liquid waste will be accepted at the Liquid Waste Bulking Facility for stabilization and subsequent disposal. BRL may not accept regulated hazardous waste, prohibited polychlorinated biphenyls, or untreated medical waste.

The waste acceptance hours are Monday through Friday, 4:00 a.m. to 5:00 p.m., and Saturdays from 5:30 a.m. to 12:00 p.m. The surrounding land use includes industrial facilities and residential subdivisions.

Complainant Information:

TCEQ Incident Nos. 294179, 294180, 294182, 294259 and 294514.

Description of Alleged Effects:

No alleged effects were described as occurring because of the odors.

Meteorological data at the time of the odor survey:

Date: October 18, 2018

Wind Direction: north-northeast (NNE) to northeast (NE)

Wind Speed: average 7 mph

BLUE RIDGE LANDFILL - FRESNO

10/18/2018 to 10/24/2018 Inv. # - 1524120

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Outdoor Temperature: 58.0 – 60.7 °F

Meteorological data taken from TCEQ's continuous air monitoring station Manvel Croix Park C84 weather station (Attachment 1).

Odor Survey (OS):

The investigators conducted OS No. 1 at 6:31 a.m., downwind of BRL at the 400 block of Evergreen Street in Houston. Garbage odors were detected during one (1) of the 15 minutes spent at OS No. 1, averaging to a very light intensity.

OS No. 2, located at the 13000 block of Moonlit Lake Lane in Pearland and downwind of the Sewer Lift Station, was conducted at 6:55 a.m. No odors were detected during the 15 minutes spent at OS No. 2.

OS No. 3, located at the intersection of Bluebonnet Drive and West Drive in Houston and downwind of Lonestar Landfill, was conducted at 7:22 a.m. No odors were detected during the 15 minutes spent at OS No. 3.

OS No. 4, located at the intersection of Hooper Road and Fruge Road in Pearland and crosswind of Brenntag Southwest/Syntech Chemicals, was conducted at 7:47 a.m. No odors were detected during the 15 minutes spent at OS No. 4.

OS No. 5, located at 12400 Shadow Creek Parkway in Pearland and downwind of the Reflection Bay Wastewater Treatment Plant (WWTP), was conducted at 8:09 a.m. No odors were detected during the 15 minutes spent at OS No. 5.

OS No. 6, located at the 200 block of McHard Road (FM 2234) in Houston and downwind of Akzo Nobel Surface Chemistry (Akzo), was conducted at 8:33 a.m. Sweet chemical/solvent odors were intermittently detected during three (3) of the 15 minutes spent at OS No. 6, averaging to a very light intensity.

An aerial view map of the OS location and the OS log are included in Attachment 1.

Summary of the on-site investigation:

Following the odor survey, the investigators arrived at BRL and met with Mr. Burgess Stengl, Environmental Manager, and Mr. Mark Meadows, Division Manager, to whom the purpose and scope of the investigation were explained.

The facility representatives drove the investigator to the MSW and Class 1 working faces, by which piles of soil were observed. The investigator obtained a copy of the MSW and Class 1 cover logs from October 4 to 17, 2018 (Attachment 2). The cover logs indicate that six (6) inches of soil is applied at the end of each operating day to the Class 1 and MSW working faces as required.

Description of Odor:

Garbage and sweet chemical/solvent odors were detected during the odor survey.

Description of the Effects on the Investigator:

No health effects were experienced by the investigators.

Description of the Terrain Features of the Area:

Terrain is flat with residences and businesses.

Location of the Source of the Odor:

While off-site, the investigators detected odors from the directions of BRL and Akzo.

Odor Frequency, Intensity, Duration and Offensiveness (FIDO) Chart Evaluation:

According to the FIDO protocol, the odor of landfill garbage is characterized as "offensive" and the odor of sweet

BLUE RIDGE LANDFILL - FRESNO

10/18/2018 to 10/24/2018 Inv. # - 1524120

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chemical/solvent (such as ketones, esters and alcohols) is characterized as "not unpleasant". Landfill garbage odors were previously detected coming from the direction of BRL on September 20, 2018. Therefore, the frequency of odors documented by the investigator is a monthly occurrence.

CONCLUSION

According to FIDO protocol, nuisance odor conditions were not confirmed during the investigation conducted on October 18, 2018. The complaints are closed.

No Violations Associated to this Investigation

Signed 
Environmental Investigator

Date 11/16/18

Signed Alma L. Jefferson
Supervisor

Date 11/16/2018

Attachments: (in order of final report submittal)

- Enforcement Action Request (EAR)
- Letter to Facility (specify type): No Action letter
- Investigation Report
- Sample Analysis Results
- Manifests
- Notice of Registration
- Maps, Plans, Sketches
- Photographs
- Correspondence from the facility
- Other (specify): See list of attachments

**Blue Ridge Landfill
2200 F.M. 521, Fresno (Fort Bend County), TX 77545
Municipal Solid Waste Permit No. 1505A
MSW Complaint Investigation
Conducted on October 18, 2018**

List of Attachments

Attachment 1: Meteorological Information, Map of Odor Survey locations and Odor Logs

Attachment 2: October 2018 Cover Logs

ATTACHMENT 1



TCEQ Waste Section

October 18, 2018 Odor Surveys

Manvel Croix Park C84 Data by Site by Date (all parameters)

Use this form to retrieve hourly data collected at Manvel Croix Park C84. Although this is the most current data, it is not considered official until it has been certified by the technical staff. This information is updated hourly.

This web page provides the most current hourly averaged data available. Our convention for time-tagging data is the beginning of each hour. For example, values shown for the noon hour are based on measurements taken from noon to 1:00 p.m. The noon average will not be calculated until after 1:00 p.m. The noon average will then be available on our external server from 1:15 p.m. to 1:30 p.m. This results in an apparent one-hour time lag in the data. We also present our data in Local Standard Time for each measuring site. For most of Texas this is Central Standard Time. During Daylight Savings, this introduces another apparent one-hour time lag in the data.

Use the controls below to select a different date or time format. Click on the Generate Report button once you have made your selections.

Click on the Plot Data button once the tabular report has been generated to open a separate window containing data plots.

Find Site:

Month: **Day:** **Year:** **Time Format:**

Green underline for validated data

The table below contains hourly averages for all the pollutants and meteorological conditions measured at Manvel Croix Park C84 for **Thursday, October 18, 2018**. All times shown are in CST.

| Parameter Measured | Morning | | | | | | | | | | | | Afternoon | | | | | | | |
|--|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|------------------|-------------|-------------|-------------|-------------|-------------|-------------|--|
| | Mid | 1:00 | 2:00 | 3:00 | 4:00 | 5:00 | 6:00 | 7:00 | 8:00 | 9:00 | 10:00 | 11:00 | Noon | 1:00 | 2:00 | 3:00 | 4:00 | 5:00 | 6:00 | |
| Nitric Oxide | -0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.6 | 0.9 | 2.8 | 4.3 | 5.1 | QAS | QAS | QAS | 1.7 | 1.0 | 0.7 | 0.5 | 0.2 | 0.0 | |
| Nitrogen Dioxide | 4.3 | 4.3 | 4.7 | 4.4 | 5.9 | 8.4 | 10.7 | 11.4 | 10.2 | 9.8 | QAS | QAS | QAS | 9.8 | 11.3 | 12.2 | 13.1 | 14.2 | 12.0 | |
| Oxides of Nitrogen | 4.2 | 4.4 | 4.8 | 4.5 | 6.2 | 9.1 | 11.6 | 14.1 | 14.4 | 14.8 | QAS | QAS | QAS | 11.5 | 12.3 | 12.8 | 13.5 | 14.4 | 12.0 | |
| Ozone | 10 | 10 | 12 | 14 | 13 | 11 | 8 | 8 | 10 | 12 | QAS | QAS | QAS | 29 | 31 | 30 | 24 | 17 | 12 | |
| Wind Speed | 7.8 | 6.8 | 8.3 | 9.7 | 9.2 | 7.5 | 6.9 | 7.0 | 8.0 | 8.5 | 9.0 | 8.8 | 8.1 | 8.9 | 7.3 | 6.9 | 7.0 | 6.0 | 6.2 | |
| Resultant Wind Speed | 7.4 | 6.3 | 8.0 | 9.4 | 8.9 | 7.3 | 6.6 | 6.7 | 7.7 | 8.1 | 8.6 | 8.4 | 7.7 | 8.4 | 7.0 | 6.6 | 6.7 | 5.7 | 5.8 | |
| Resultant Wind Direction | 14 | 17 | 30 | 31 | 30 | 33 | 29 | 33 | 41 | 44 | 36 | 40 | 52 | 44 | 39 | 34 | 19 | 20 | 11 | |
| Maximum Wind Gust | 14.7 | 13.2 | 18.9 | 17.6 | 17.5 | 15.2 | 12.5 | 13.3 | 15.4 | 16.4 | 15.9 | 17.0 | 15.2 | 15.3 | 14.7 | 12.4 | 15.8 | 12.5 | 10.6 | |
| Std. Dev. Wind Direction | 18 | 21 | 17 | 16 | 15 | 15 | 18 | 15 | 17 | 17 | 16 | 17 | 17 | 18 | 16 | 16 | 18 | 19 | 19 | |
| Outdoor Temperature | 58.9 | 58.5 | 58.1 | 57.4 | 57.2 | 57.6 | 58.0 | 58.8 | 60.7 | 62.7 | 64.5 | 67.1 | 69.2 | 70.7 | 71.2 | 71.6 | 71.7 | 71.3 | 70.6 | |
| Parameter Measured | Mid | 1:00 | 2:00 | 3:00 | 4:00 | 5:00 | 6:00 | 7:00 | 8:00 | 9:00 | 10:00 | 11:00 | Noon | 1:00 | 2:00 | 3:00 | 4:00 | 5:00 | 6:00 | |
| | Morning | | | | | | | | | | | | Afternoon | | | | | | | |
| | Maximum values for each parameter are bold within the table. Minimum values are bold italic . | | | | | | | | | | | | | | | | | | | |
| | R - Data from this instrument meets EPA quality assurance criteria for regulatory purposes. | | | | | | | | | | | | | | | | | | | |

PLEASE NOTE: This data has not been verified by the TCEQ and may change. This is the most current data, but it is not official until it has been certified by our technical staff. Data is collected from TCEQ ambient monitoring sites and may include data collected by other outside agencies. This data is updated hourly. All times shown are in local standard time unless otherwise indicated.

Following EPA reporting guidelines, negative values may be displayed in our hourly criteria air quality data, down to the negative of the EPA listed Method Detection Limit (MDL) for the particular instrument that made the measurements. The reported concentrations can be negative due to zero drift in the electronic instrument output, data logger channel, or calibration adjustments to the data. Prior to 1/1/2013, slightly negative values were automatically set to zero.

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Last Modified Tuesday, 30 Jan 2018

Supplemental Investigator's Odor Intensity Time Log

Investigator: Reynold Loosmore

Location: 400 Dakota of Evergreen St

Date of Investigation: October 18, 2018

Start Time: 0631 ND

| Minutes | Odor Intensity VL, L, M, S, VS |
|---------|--------------------------------|
| 1 min | L |
| 2 | No Odor |
| 3 | No Odor |
| 4 | No Odor |
| 5 | No Odor |
| 6 | No Odor |
| 7 | No Odor |
| 8 | No Odor |
| 9 | No Odor |
| 10 | No Odor |
| 11 | No Odor |
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| 13 | No Odor |
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| 30 | |

| Minutes | Odor Intensity VL, L, M, S, VS |
|---------|--------------------------------|
| 31 min | |
| 32 | |
| 33 | |
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Odor Description: Garbage - Landfill

Offensiveness: Highly _____ Offensive Unpleasant _____ Not Unpleasant _____

Weighted Average Intensity:

| | VS | S | M | L | VL | No Odor |
|--------|----|---|---|-----|----|---------|
| 1 Min | | | | 1x2 | | |
| 10 Min | | | | | | |
| 1 Hour | | | | | | |

Supplemental Investigator's Odor Intensity Time Log

Investigator: Keyna Laasmore

Location: 13000 block of Moonlit Lake Ln

Date of Investigation: October 18, 2018

Start Time: 0655 hr

| Minutes | Odor Intensity VL, L, M, S, VS |
|---------|--------------------------------|
| 1 min | No Odor |
| 2 | No Odor |
| 3 | No Odor |
| 4 | No Odor |
| 5 | No Odor |
| 6 | No Odor |
| 7 | No Odor |
| 8 | No Odor |
| 9 | No Odor |
| 10 | No Odor |
| 11 | No Odor |
| 12 | No Odor |
| 13 | No Odor |
| 14 | No Odor |
| 15 | No Odor |
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| 29 | |
| 30 | |

| Minutes | Odor Intensity VL, L, M, S, VS |
|---------|--------------------------------|
| 31 min | |
| 32 | |
| 33 | |
| 34 | |
| 35 | |
| 36 | |
| 37 | |
| 38 | |
| 39 | |
| 40 | |
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| 60 | |

Odor Description: _____

Offensiveness: Highly _____ Offensive _____ Unpleasant _____ Not Unpleasant _____

Weighted Average Intensity:

| | VS | S | M | L | VL | No Odor |
|--------|----|---|---|---|----|---------|
| 1 Min | | | | | | |
| 10 Min | | | | | | |
| 1 Hour | | | | | | |

Supplemental Investigator's Odor Intensity Time Log

Investigator: Keena Loosmore

Location: Intersection of Bluebonnet Dr & West Dr

Date of Investigation: October 18, 2018

Start Time: 0722 hrs

| Minutes | Odor Intensity VL, L, M, S, VS |
|---------|--------------------------------|
| 1 min | No odor |
| 2 | No odor |
| 3 | No odor |
| 4 | No odor |
| 5 | No odor |
| 6 | No odor |
| 7 | No odor |
| 8 | No odor |
| 9 | No odor |
| 10 | No odor |
| 11 | No odor |
| 12 | No odor |
| 13 | No odor |
| 14 | No odor |
| 15 | No odor |
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| 30 | |

| Minutes | Odor Intensity VL, L, M, S, VS |
|---------|--------------------------------|
| 31 min | |
| 32 | |
| 33 | |
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| 37 | |
| 38 | |
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| 60 | |

Odor Description: _____

Offensiveness: Highly _____ Offensive _____ Unpleasant _____ Not Unpleasant _____

Weighted Average Intensity:

| | VS | S | M | L | VL | No Odor |
|--------|----|---|---|---|----|---------|
| 1 Min | | | | | | |
| 10 Min | | | | | | |
| 1 Hour | | | | | | |

Supplemental Investigator's Odor Intensity Time Log

Investigator: Kevin Logsmore
 Date of Investigation: October 18, 2018

Location: Intersection of Hopper Rd & Fudge Rd
 Start Time: 0747 HD

| Minutes | Odor Intensity VL, L, M, S, VS |
|---------|--------------------------------|
| 1 min | No odor |
| 2 | No odor |
| 3 | No odor |
| 4 | No odor |
| 5 | No odor |
| 6 | No odor |
| 7 | No odor |
| 8 | No odor |
| 9 | No odor |
| 10 | No odor |
| 11 | No odor |
| 12 | No odor |
| 13 | No odor |
| 14 | No odor |
| 15 | No odor |
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| 30 | |

| Minutes | Odor Intensity VL, L, M, S, VS |
|---------|--------------------------------|
| 31 min | |
| 32 | |
| 33 | |
| 34 | |
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| 36 | |
| 37 | |
| 38 | |
| 39 | |
| 40 | |
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| 58 | |
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| 60 | |

Odor Description: _____

Offensiveness: Highly _____ Offensive _____ Unpleasant _____ Not Unpleasant _____

Weighted Average Intensity:

| | VS | S | M | L | VL | No Odor |
|--------|----|---|---|---|----|---------|
| 1 Min | | | | | | |
| 10 Min | | | | | | |
| 1 Hour | | | | | | |

Supplemental Investigator's Odor Intensity Time Log

Investigator: Reyna Lonsmore

Location: 12400 Shadow Creek Pkwy

Date of Investigation: October 18, 2018

Start Time: 0809 hr

| Minutes | Odor Intensity VL, L, M, S, VS |
|---------|--------------------------------|
| 1 min | No odor |
| 2 | No odor |
| 3 | No odor |
| 4 | No odor |
| 5 | No odor |
| 6 | No odor |
| 7 | No odor |
| 8 | No odor |
| 9 | No odor |
| 10 | No odor |
| 11 | No odor |
| 12 | No odor |
| 13 | No odor |
| 14 | No odor |
| 15 | No odor |
| 16 | |
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| 26 | |
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| 28 | |
| 29 | |
| 30 | |

| Minutes | Odor Intensity VL, L, M, S, VS |
|---------|--------------------------------|
| 31 min | |
| 32 | |
| 33 | |
| 34 | |
| 35 | |
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| 37 | |
| 38 | |
| 39 | |
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| 58 | |
| 59 | |
| 60 | |

Odor Description: _____

Offensiveness: Highly _____ Offensive _____ Unpleasant _____ Not Unpleasant _____

Weighted Average Intensity:

| | VS | S | M | L | VL | No Odor |
|--------|----|---|---|---|----|---------|
| 1 Min | | | | | | |
| 10 Min | | | | | | |
| 1 Hour | | | | | | |

Supplemental Investigator's Odor Intensity Time Log

Investigator: Reyna Lasmore
 Date of Investigation: October 18, 2018

Location: 200 block of FM 2334 / McHard Road
 Start Time: 0833 hrs

| Minutes | Odor Intensity VL, L, M, S, VS |
|---------|--------------------------------|
| 1 min | VL |
| 2 | No Odor |
| 3 | VL |
| 4 | No Odor |
| 5 | No Odor |
| 6 | No Odor |
| 7 | No Odor |
| 8 | No Odor |
| 9 | No Odor |
| 10 | No Odor |
| 11 | No Odor |
| 12 | VL |
| 13 | No Odor |
| 14 | No Odor |
| 15 | No Odor |
| 16 | |
| 17 | |
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| 29 | |
| 30 | |

| Minutes | Odor Intensity VL, L, M, S, VS |
|---------|--------------------------------|
| 31 min | |
| 32 | |
| 33 | |
| 34 | |
| 35 | |
| 36 | |
| 37 | |
| 38 | |
| 39 | |
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| 58 | |
| 59 | |
| 60 | |

Odor Description: Sweet chemical / solvent

Offensiveness: Highly _____ Offensive _____ Unpleasant _____ Not Unpleasant

Weighted Average Intensity:

| | VS | S | M | L | VL | No Odor |
|--------|----|---|---|---|----------|---------|
| 1 Min | | | | | VL 3X | |
| 10 Min | | | | | | |
| 1 Hour | | | | | | |

ATTACHMENT 2

COVER APPLICATION LOG

MSW

Month / Year: 02-2008

201

| Daily Cover 6" Soil | Approved Alternate Daily Cover | | Elevation MSL | Inspection Date of Daily Cover | Erosion of Leachate Seep Detected | Date of Leachate Seep Corrected | Corrective Action | Soil Stockpile Required (yds) | Rain (inches) | Rain (inches) ≥ 0.5" | Intermediate Cover 12" Soil | | Final Cover Per Final Closure Plan | | Inspection Date of Intermediate & Final Cover | Erosion & 4 Detected | Date Erosion Corrected | Corrective Action | Final Cover Certification Report Reference | Supervisor Signature |
|------------------------|--------------------------------|--------|------------------|--------------------------------------|--|--|----------------------|--|------------------|----------------------------|--------------------------------|--------|---------------------------------------|--------|---|----------------------------|---------------------------|----------------------|--|----------------------|
| | Grid Area | Method | | | | | | | | | Grid Area | Method | Grid Area | Method | | | | | | |
| 1 | 750 | 53-52 | 6" | B | 55-62 | ✓ | | | 1.4 | ✓ | | | ✓ | | | | | | | |
| 2 | 750 | 53-51 | 6" | B | 62-70 | ✓ | | | 0.2 | | | | ✓ | | | | | | | |
| 3 | 750 | 53-50 | 6" | B | 40-46 | ✓ | | | 0.1 | | | | ✓ | | | | | | | |
| 4 | 750 | 53-49 | 6" | B | 46-52 | ✓ | | | | | | | ✓ | | | | | | | |
| 5 | 750 | 53-48 | 6" | B | 52-60 | ✓ | | | | | | | ✓ | | | | | | | |
| 6 | 500 | 53-47 | 6" | B | 60-62 | ✓ | | | | | | | ✓ | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | |
| 8 | 750 | 53-46 | 6" | B | 40-48 | ✓ | | | | | | | ✓ | | | | | | | |
| 9 | 750 | 53-45 | 6" | B | 48-59 | ✓ | | | | | | | ✓ | | | | | | | |
| 10 | 750 | 53-44 | 6" | B | 53-58 | ✓ | | | | | | | ✓ | | | | | | | |
| 11 | 750 | 53-43 | 6" | B | 58-66 | ✓ | | | | | | | ✓ | | | | 10-11-18 | G | | |
| 12 | 750 | 53-42 | 6" | B | 48-48 | ✓ | | | | | | | ✓ | | | | 10-12-18 | G | | |
| 13 | 500 | 53-41 | 6" | B | 48-50 | ✓ | | | | | | | ✓ | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | | | |
| 15 | 750 | 53-40 | 6" | B | 50-58 | ✓ | | | 1.1 | ✓ | | | ✓ | | | | | | | |
| 16 | 750 | 53-39 | 6" | B | 58-64 | ✓ | | | 0.1 | | | | ✓ | | | | | | | |
| 17 | 750 | 53-38 | 6" | B | 40-46 | ✓ | | | | | | | ✓ | | | | | | | |
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AMT = Amount of cover (soil) in yd³ or alternate daily cover in bags or tarp area

T = Thickness in inches

Methods: A = Tarp Machine, B = Soil by Heavy Equipment, S = Spray-On

Inspect areas with daily cover or alternate daily cover each day the site is in operation and areas with intermediate and final cover weekly or within 72 hours of a rainfall event of 0.5" or more. Inspect all areas in accordance with Site Operating Plan Section 4.1.8. Additional documentation area on back of form.

Erosion of daily cover must be corrected within 24 hours after the area is accessible. Erosion of intermediate or final cover must be corrected within 5 days. Attach documentation stating reasons for delay.

Corrective Action: R = Restoring cover material; G = Grading; M = Compacting; S = Seeding

SOP Section 7.7.4 requires a soil stockpile to be maintained within 1,000 ft of the working face. The amount of soil required is dependent upon the maximum anticipated size of the working face. A 50 yd³ soil stockpile is required within 1,000 ft of the Regulated Asbestos-Containing Material (RACM) disposal area.

Signature certifies work accomplished as stated in the Cover Application Log.

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| 11 | Graded to repair erodions on Phase III north slope on 22/49-52 graded to remain level Phase III E-H/24-27 |
| 12 | Graded to repair erodions on Phase III north slope on 41/49-52 |
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COVER APPLICATION LOG CLASS I NON HAZARDOUS

Month / Year: **OCTOBER 2018**

OLS 1

| Daily Cover | | Approved Alternate Daily Cover | | Elevation | Inspection Date of Daily Cover | Erosion of Leachate Step Detected | Date of Leachate Step Corrected | Corrective Action | Soil Stockpile Required (yd ³) | Rain (inches) ≥ 0.5" | Rain (inches) ≥ 0.5" | Intermediate Cover | | Final Cover | | Inspection Date of Intermediate & Final Cover | Erosion ≥ 4" Detected | Date Erosion Corrected | Corrective Action | Final Cover Certification Report Reference | Supervisor Signature | | |
|-------------|-----------|--------------------------------|--------|-----------|--------------------------------|-----------------------------------|---------------------------------|-------------------|--|----------------------|----------------------|--------------------|----------------|----------------|-----------|---|-----------------------|------------------------|-------------------|--|----------------------|----------------|--------|
| 6" Soil | | Spray-On or Tarps | | MSL | Method | MSL | MSL | MSL | MSL | MSL | MSL | Grid Area | T ² | Method | Grid Area | T ² | Method | Grid Area | T ² | Method | Grid Area | T ² | |
| AMT | Grid Area | T ² | Method | AMT | Grid Area | T ² | Method | AMT | Grid Area | T ² | Method | AMT | Grid Area | T ² | Method | AMT | Grid Area | T ² | Method | AMT | Grid Area | T ² | Method |
| 1 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 3 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 4 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 5 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 6 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 7 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 8 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 9 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 10 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 11 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 12 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 13 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 14 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 15 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 16 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 17 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 18 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 19 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 20 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 21 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 22 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 23 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 24 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 25 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 26 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 27 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 28 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 29 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 30 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 31 | 500 | 3-30 | 6" | B | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

AMT = Amount of cover (soil) in yd³ or alternate daily cover in bags or tarp area
T = Thickness in inches

Methods: A = Tarp Machine B = Soil by Heavy Equipment S = Spray-On

Inspected areas with daily cover or alternate daily cover each day the site is in operation and areas with intermediate and final cover weekly or within 72 hours of a rainfall event of 0.5" or more. Inspect all areas in accordance with Site Operating Plan Section 4.15. Additional documentation area on back of form.

Erosion of daily cover must be corrected within 24 hours after the area is accessible. Erosion of intermediate or final cover must be corrected within 5 days of detection unless approved by TCEQ Regional Office. If not corrected within 5 days, attach documentation stating reasons for delay.

Corrective Action: R = Restoring cover material; G = Grading; M = Compacting; S = Seeding

SOP Section 7.74 requires a soil stockpile to be maintained within 1,000 ft of the working face. The amount of soil required is dependent upon the maximum anticipated size of the working face. A 50 yd³ soil stockpile is required within 100ft of the Regulated Asbestos-Containing Material (RACM) disposal area.

Signature certifies work accomplished as stated in the Cover Application Log.

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