

MSW PA_1505A_CP_20180509_Investigation
Texas Commission on Environmental Quality
Investigation Report

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

Regulated Entity Name: BLUE RIDGE LANDFILL

Regulated Entity Number: RN102610102

Investigation # 1489897

Incident Numbers

284113	284327
284331	285080
284407	284400
284117	284335
284426	284328
284323	284408
284318	284119
285028	284337
284314	285093
284329	284110
285030	284398
284412	284319
284338	284315
285087	284403
284111	284394
284114	284322
284320	285099
284333	285076
284399	284395
284115	284321
284312	284506
284404	285095
284313	284410
284116	285090

Investigator: REYNA LOOSMORE

Site Classification TYPE 1

Conducted: 05/09/2018 -- 10/10/2018

NAIC Code: 562212

NAIC Code: 486210

SIC Code: 4922

SIC Code: 4953

SIC Code: 1521

Program(s): MUNICIPAL SOLID WASTE DISPOSAL
STORMWATER

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): MSWC MPL - Investigation of MSW
complaint
SWC MPL - SW Complaint

Principal(s):

Role

Name

RESPONDENT

BLUE RIDGE LANDFILL TX LP

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Contact(s):

Role	Title	Name	Phone	
REGULATED ENTITY MAIL CONTACT	ENVIRONMENTAL MANAGER	MR BURGESS STENGL	Fax Office	(713) 676-7882 (713) 676-7669
NOE CONTACT	ENVIRONMENTAL MANAGER	MR BURGESS STENGL	Fax Office	(713) 676-7882 (713) 676-7669
PARTICIPATED IN	OPERATIONS MANAGER	MR MATT MONTAGNA	Office	(281) 668-9739
PARTICIPATED IN	ENVIRONMENTAL SPECIALIST	MR CHANCE SEELY	Phone	(281) 835-6142
REGULATED ENTITY CONTACT	ENVIRONMENTAL MANAGER	MR BURGESS STENGL	Office Fax	(713) 676-7669 (713) 676-7882

Other Staff Member(s):

Role	Name
Investigator	WILLIAM JORN
Supervisor	ALMA JEFFERSON
Investigator	KIMBERLY RHODES
QA Reviewer	ROBERT MCLEOD

Associated Check List

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

Investigation Comments:

INTRODUCTION

On May 14, 15, 16, 17, 18, and 21, 2018, the Texas Commission on Environmental Quality (TCEQ) Houston Region Office Waste Section received 48 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 13, 2017 and May 11, 15, 16, and 17, 2018.

On May 9, 2018, Ms. Reyna L. Loosmore (Waste Section), Mr. Austin Jorn (Air Section) and Ms. Kimberly Rhodes (Water Section), Environmental Investigators of the TCEQ Houston Region Office, conducted an unannounced on-site Odor Complaint Investigation at BRL. On May 15 through 17, 2018, Mr. Nathan Hoppens, Mr. Tom Randolph, Mr. Manuel Gonzalez and Ms. Peyton Pearce, with the TCEQ Monitoring Division, conducted odor surveys and air sampling in the area surrounding BRL. Additionally, on May 15 and 17, 2018, Ms. Rhodes and Mr. Trey Thumann, Environmental Investigators of the TCEQ Houston Region Office Water Section, conducted odor surveys in the area surrounding BRL. Odor surveys were performed in accordance with the TCEQ Odor Complaint Investigation Procedures (also referred to as the "FIDO Protocol"). A separate Surface Emission Monitoring (SEM) investigation (TCEQ Consolidated Compliance and Enforcement Data System (CCEDS) Investigation Report No. 1486565) was conducted by the TCEQ Houston Region Office Air Section at BRL on April 30 through July 6, 2018.

One alleged violation for failure to prevent nuisance odor conditions was noted during this investigation that requires initiation of formal enforcement action. A "TCEQ Exit Interview Form: Potential Violations and/or Records Requested" (TCEQ-20085) was sent via electronic mail (e-mail) to BRL on October 10, 2018.

BACKGROUND

On May 4 through August 18, 2016, investigations were conducted by the TCEQ Houston Region Office Air Section (Investigation No. 1331231). Subsequent to the investigations, 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 issued by the TCEQ. By letter dated April 10, 2018, the TCEQ Enforcement Division approved BRL's Revised Odor Control Plan, thus requiring BRL to implement all provisions of the plan in accordance with the approved schedule.

Based on a review of the CCEDS database and Regional Office records, the TCEQ Houston Region Office has continuously received hundreds of odor complaints from the area surrounding BRL since the May 4 through August 18, 2016 investigation. Many of these complaints specifically identified Blue Ridge Landfill as the source.

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 is 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 residential subdivisions and industrial sources such as Brenntag Southwest/Syntech Chemicals, Akzo Nobel Surface Chemistry, Sewer Lift Station and a Wastewater Treatment Plant.

Complainant Information:

TCEQ Incident Nos. 284110, 284111, 284113, 284114, 284115, 284116, 284117, 284119, 284312, 284313, 284314, 284315, 284318, 284319, 284320, 284321, 284322, 284323, 284327, 284328, 284329, 284331, 284333, 284335, 284337, 284338, 284394, 284395, 284398, 284399, 284400, 284403, 284404, 284407, 284408, 284410, 284412, 284426, 284506, 285028, 285030, 285076, 285080, 285087, 285090, 285093, 285095, and 285099. A Complaint Location Map is included in Attachment 1.

Description of Alleged Odors:

The alleged odors were described by the complainants as having a garbage, rotting/chemical trash, landfill, chemical, sewage, dumpster, sour waste/garbage, sweet gas, or rotten eggs character.

Description of Alleged Effects:

The alleged effects described by some of the complainants as occurring because of the odors is as follows: eight (8) described experiencing nausea; one (1) described experiencing discomfort; two (2) described experiencing a headache; one (1) described experiencing dizziness; two (2) described experiencing irritation of the throat; and one (1) described experiencing irritation of the eyes. Complainant information is included in Attachment 2.

Summary of the on-site investigation:

On May 9, 2018, Ms. Loosmore, Mr. Jorn, and Ms. Rhodes arrived at BRL and met with Mr. Matt Montagna, Operations Manager; and Mr. Chance Seely, Environmental Specialist, to whom the purpose and scope of the investigation were explained.

May 15, 2018 Odor Surveys (OS)

Meteorological data at the time of the TCEQ Monitoring Division's odor surveys:

Wind Direction: varying from southeast (SE) to northeast (NE) to SE to southwest (SW)

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Wind Speed: average 2 miles per hour (mph)

Outdoor Temperature: 66.6 – 81.0 degrees Fahrenheit (°F)

Meteorological data taken from TCEQ's continuous air monitoring station Manvel Croix Park C84 weather station (Attachment 3).

TCEQ Monitoring Division Odor Surveys:

The TCEQ Monitoring Division staff conducted OS No. 1 at 4:13 a.m., crosswind of BRL at Vintage Trail Lane in Pearland. Garbage odors were continuously detected during the 20 minutes spent at OS No. 1, averaging to a light intensity.

OS No. 2, located at the Beltway 8 east bound access road in Houston and downwind of Lonestar Landfill, was conducted at 5:50 a.m. Wet garbage odors were continuously detected during the 15 minutes spent at OS No. 2, averaging to a light intensity.

OS No. 3.a., located at Sidonie Drive in Houston and upwind of BRL, was conducted at 6:25 a.m. Garbage odors were intermittently detected during 10 of the 20 minutes spent at OS No. 3.a., averaging to a very light intensity.

OS No. 3.b., located at Sidonie Drive in Houston and downwind of BRL, was conducted at 8:38 a.m. Garbage odors were intermittently detected during seven (7) of the 15 minutes spent at OS No. 3.b., averaging to a very light intensity.

OS No. 4, located at Carlisle Court in Pearland and crosswind of BRL, was conducted at 8:40 a.m. No odors were detected during the 17 minutes spent at OS No. 4.

OS No. 5, located at the end of Morgan Bay Court in Pearland and downwind of BRL, was conducted at 10:35 a.m. Moldy, rancid, garbage odors were intermittently detected during 36 of the 45 minutes spent at OS No. 5, averaging to a light intensity.

OS No. 6, located at Juniper Springs Drive in Pearland and downwind of BRL, was conducted at 10:48 a.m. Sour rotten garbage odors were continuously detected during the 11 minutes spent at OS No. 6, averaging to a strong intensity.

Meteorological data at the time of the TCEQ Water Section's odor surveys:

Wind Direction: varying from southeast (SE) to south (S) to northeast (NE) to SE

Wind Speed: average 2 mph

Outdoor Temperature: 66.6 – 73.8 °F

Meteorological data taken from TCEQ's continuous air monitoring station Manvel Croix Park C84 weather station (Attachment 3).

TCEQ Water Section's Odor Surveys:

The TCEQ Water Section investigators conducted OS No. 1 at 4:25 a.m., north-northeast and crosswind of BRL at the 8500 block of McHard Road (FM 2234) in Houston. Leachate odors were intermittently detected during 13 minutes of the 16 minutes spent at OS No. 1, averaging to a very light intensity. The investigators experienced health effects of stinging sensations in their nasal passages during the odor survey. The effects were attributed to the highly offensive leachate odors noted and resulted in a nuisance condition alleged violation. This is further discussed in the Summary of Investigation Findings section of this report.

OS No. 2, located at Morgan Bay Court in Pearland and upwind of BRL, was conducted at 4:51 a.m. No odors were detected during the 15 minutes spent at OS No. 2.

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OS No. 3, located at the intersection of Mountain Sage Court and Mountain Sage Drive in Pearland and crosswind of the Energy Transfer Deodorizing Station, was conducted at 5:11 a.m. No odors were detected during the 15 minutes spent at OS No. 3.

OS No. 4, located at Biscayne Bay Drive in Pearland and upwind of the Sewer Lift Station, was conducted at 5:31 a.m. No odors were detected during the 15 minutes spent at OS No. 4.

OS No. 5, located at Reflection Bay Drive in Pearland and downwind of the WWTP, was conducted at 5:56 a.m. No odors were detected during the 15 minutes spent at OS No. 5.

OS No. 6, located at Hooper Road in Pearland and upwind of Brenntag Southwest/Syntech Chemicals, was conducted at 6:35 a.m. Chemical odors similar to paint/paint thinner were intermittently detected during six (6) of the 20 minutes spent at OS No. 6, averaging to a very light intensity.

OS No. 7, located at Bluebonnet Drive in Houston and downwind of Akzo, was conducted at 7:10 a.m. Sweet chemical odors were intermittently detected during 15 of the 17 minutes spent at OS No. 7, averaging to a very light intensity.

OS No. 8, located at Miramichi Court in Houston and downwind of Akzo and Lonestar Landfill, was conducted at 7:45 a.m. Chemical odors were detected during 11 of the 16 minutes spent at OS No. 8, averaging to a very light intensity.

Aerial view map of the OS locations and the OS logs from the TCEQ Monitoring Division and the Water Section are included in Attachment 3.

May 16, 2018 Odor Surveys:

Meteorological data at the time of the TCEQ Monitoring Division's odor surveys:

Wind Direction: southwest (SW) to northwest (NW) to west (W) to southwest (SW)

Wind Speed: average 3.8 mph

Outdoor Temperature: 68.3 – 85.0 °F

Meteorological data taken from TCEQ's continuous air monitoring station Manvel Croix Park C84 weather station (Attachment 4).

TCEQ Monitoring Division's Odor Surveys:

The TCEQ Monitoring Division staff conducted OS No. 1 at 1:17 a.m., downwind of BRL near the intersection of FM 521 and Shadow Creek Ranch Parkway in Pearland. Sour rotten garbage odors were continuously detected during the 37 minutes spent at OS No. 1, averaging to a moderate intensity.

OS No. 2, located at Nail Road in Houston and upwind of BRL, was conducted at 1:17 a.m. Honeysuckle odors were intermittently detected during 15 of the 45 minutes spent at OS No. 2, averaging to a very light intensity.

OS No. 3, located near the Diamond Bay Water Park in Pearland and crosswind of BRL, was conducted at 2:40 a.m. Odors were intermittently detected during nine (9) of the 15 minutes spent at OS No. 3, averaging to a very light intensity.

OS No. 4, located at Morgan Bay Court in Pearland and downwind of BRL, was conducted at 3:07 a.m. Sweet/garbage odors were detected during seven (7) of the 20 minutes spent at OS No. 4, averaging to a very light intensity.

OS No. 5, located at Bluebonnet Drive in Houston and upwind of Akzo Nobel Surface Chemistry (Akzo), was conducted at 4:53 a.m. No odors were detected during the 15 minutes spent at OS No. 5.

OS No. 6, located off FM 521 in Houston and downwind of Akzo, was conducted at 4:53 a.m. Sweet chemical

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odors were intermittently detected during five (5) of the 15 minutes spent at OS No. 6, averaging to a very light intensity.

OS No. 7, located at the intersection of Arcadian Shores Lane and Field Hollow Drive in Pearland and downwind of BRL, was conducted at 5:07 a.m. Garbage odors were detected during 14 of the 15 minutes spent at OS No. 7, averaging to a light intensity.

OS No. 8.a., located at Reflection Bay Court in Pearland and downwind of the Reflection Bay Wastewater Treatment Plant (WWTP), was conducted at 8:30 a.m. Sewage and hydrogen sulfide odors were detected during 26 of the 30 minutes spent at OS No. 8.a., averaging to a light intensity.

OS No. 8.b., located at Reflection Bay Court in Pearland and downwind of the WWTP, was conducted at 9:34 a.m. Sulfur odors were intermittently detected during 22 of the 37 minutes spent at OS No. 8.b., averaging to a light intensity.

OS No. 9, located at the 12000 block of Shadow Creek Ranch Parkway in Pearland and crosswind of the WWTP, was conducted at 9:34 a.m. No odors were detected during the 30 minutes spent at OS No. 9.

OS No. 10.a., located off Hooper Road in Pearland and downwind of Brenntag Southwest and Syntech Chemicals, was conducted at 10:45 a.m. Sweet/amine odors were detected during 14 of the 15 minutes spent at OS No. 10.a., averaging to a moderate intensity.

OS No. 10.b., located off Hooper Road in Pearland and downwind of Brenntag Southwest and Syntech Chemicals, was conducted at 11:07 a.m. No odors were detected during the 15 minutes spent at OS No. 10.b.

OS No. 11, located off Alameda School Road in Pearland and upwind of Brenntag Southwest and Syntech Chemicals, was conducted at 10:45 a.m. No odors were detected during the 37 minutes spent at OS No. 11.

Aerial view map of the OS locations and the OS logs from the TCEQ Monitoring Division are included in Attachment 4.

May 17, 2018 Odor Surveys

Meteorological data at the time of the TCEQ Monitoring Division's odor surveys:

Wind Direction: southwest (SW)

Wind Speed: average 4 mph

Outdoor Temperature: 69.3 – 85.7 °F

Meteorological data taken from TCEQ's continuous air monitoring station Manvel Croix Park C84 weather station (Attachment 5).

TCEQ Monitoring Division's Odor Surveys:

The TCEQ Monitoring Division staff conducted OS No. 1 at 12:03 a.m., downwind of BRL near the intersection of FM 521 and Shadow Creek Ranch Parkway in Pearland. Sweet garbage odors were intermittently detected during 17 minutes of the 30 minutes spent at OS No. 1, averaging to a very light intensity.

OS No. 2.a., located near the intersection of Nail Road and Evergreen Street in Houston and upwind of BRL, was conducted at 12:05 a.m. No odors were detected during the 30 minutes spent at OS No. 2.a.

OS No. 2.b., located near the intersection of Nail Road and Evergreen Street in Houston and upwind of BRL, was conducted at 12:49 a.m. No odors were detected during the 40 minutes spent at OS No. 2.b.

OS No. 3, located at Sunset Springs Drive in Pearland and downwind of BRL, was conducted at 12:48 a.m. Garbage odors were continuously detected during the 38 minutes spent at OS No. 3, averaging to a moderate intensity.

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OS No. 4, located near the intersection of Trinity Bay and Biscayne Bay Drive in Pearland and downwind of BRL, was conducted at 1:45 a.m. Garbage odors were continuously detected during the 30 minutes spent at OS No. 4, averaging to a moderate intensity.

OS No. 5, located at the access road of Sam Houston Parkway in Houston and downwind of Lonestar Landfill, was conducted at 2:13 a.m. Trash/garbage and popcorn odors were intermittently detected during 17 of the 30 minutes spent at OS No. 5, averaging to a very light intensity.

OS No. 6, located at Bluebonnet Drive in Houston and upwind of Lonestar Landfill, was conducted at 2:14 a.m. No odors were detected during the 30 minutes spent at OS No. 6.

OS No. 7, located at FM 521 in Houston and downwind of Akzo, was conducted at 2:35 a.m. Organic odors were intermittently detected during 17 of the 20 minutes spent at OS No. 7, averaging to a light intensity.

OS No. 8, located at Golden Creek Lane in Pearland and downwind of the Sewer Lift Station, was conducted at 3:05 a.m. Portable toilet odors were intermittently detected during six (6) of the 15 minutes spent at OS No. 8, averaging to a very light intensity.

OS No. 9, located at Moonlit Lake Lane in Pearland and upwind of the Sewer Lift Station, was conducted at 3:05 a.m. No odors were detected during the 30 minutes spent at OS No. 9.

OS No. 10, located near the intersection of Long Lake and Mountain Sage Drive in Pearland and downwind of BRL, was conducted at 3:20 a.m. Garbage/fecal odors were detected during 16 of the 17 minutes spent at OS No. 10, averaging to a strong intensity.

OS No. 11, located at Reflection Bay Drive in Pearland and crosswind of the WWTP, was conducted at 10:45 a.m. Sewage/hydrogen sulfide odors were detected during 14 of the 15 minutes spent at OS No. 11, averaging to a light intensity.

Meteorological data at the time of the TCEQ Water Section's odor surveys:

Wind Direction: southwest (SW)

Wind Speed: average 4 mph

Outdoor Temperature: average 68.9 – 82.9 °F

Meteorological data taken from TCEQ's continuous air monitoring station Manvel Croix Park C84 weather station (Attachment 5).

TCEQ Water Section's Odor Surveys:

The TCEQ Water Section investigators conducted OS No. 1 at 4:25 a.m., downwind of BRL at the intersection of Cayman Bend Lane and Sunset Springs Drive in Pearland. Garbage odors were detected intermittently during eight (8) of the 20 minutes spent at OS No. 1, averaging to a very light intensity.

OS No. 2, located at Morgan Bay Court in Pearland and downwind of BRL, was conducted at 4:55 a.m. No odors were detected during the 15 minutes spent at OS No. 2.

OS No. 3, located at the intersection of Mountain Sage Court and Mountain Sage Drive in Pearland and crosswind of the Energy Transfer Deodorizing Station, was conducted at 5:45 a.m. No odors were detected during the 15 minutes spent at OS No. 3.

OS No. 4, located at the intersection of Shallow Falls Lane and Golden Creek Lane in Pearland and downwind of the Sewer Lift Station, was conducted at 6:10 a.m. Raw sewage odors were intermittently detected during 29 of the 60 minutes spent at OS No. 4, averaging to a very light intensity.

OS No. 5, located at the intersection of Hooper Road and Fruge Road in Pearland and crosswind of the WWTP,

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was conducted at 8:20 a.m. No odors were detected during the 15 minutes spent at OS No. 5.

OS No. 6, located at N Spectrum Boulevard in Pearland and downwind of Brenntag Southwest/Syntech Chemicals, was conducted at 8:40 a.m. Paint/chemical odors were detected during seven (7) of the 15 minutes spent at OS No. 6, averaging to a very light intensity.

OS No. 7, located at Field Drive in Houston and crosswind of Akzo, was conducted at 9:05 a.m. Chemical odors were intermittently detected during three (3) of the 15 minutes spent at OS No. 7, averaging to a very light intensity.

OS No. 8, located near the intersection of W. Riley Road and FM 521 in Houston and crosswind of Lonestar Landfill, was conducted at 9:30 a.m. No odors were detected during the 15 minutes spent at OS No. 8.

Aerial view map of the OS locations and the OS logs from the TCEQ Monitoring Division and the Water Section are included in Attachment 5.

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 TCEQ Monitoring Division staff detected landfill garbage/trash odor from the directions of Blue Ridge Landfill and Lonestar Landfill; chemical/organic odor from Akzo; sewage, sulfur, and hydrogen sulfide odors from the Reflection Bay WWTP; amine odor from Brenntag Southwest/Syntech Chemicals; and portable toilet odor from the Sewer Lift Station.

While off-site, the TCEQ Water Section investigators detected landfill garbage and leachate odor from the direction of Blue Ridge Landfill; chemical/paint odor from Brenntag Southwest/Syntech Chemicals; chemical odor from Akzo; and raw sewage odor from the Sewer Lift Station.

Description of Odor:

As noted within the above section, sour rotten garbage, honeysuckle, sweet chemical, sewage/fecal, sulfur, amine, organic, and hydrogen sulfide odors were detected by the TCEQ Monitoring Division staff during the odor surveys conducted on May 15 through 17, 2018.

Leachate, chemical/paint thinner, garbage, and raw sewage odors were detected by the TCEQ Water Section investigators during the odor surveys conducted on May 15 and 17, 2018.

Description of the Effects on the Investigators:

No health effects were experienced by the TCEQ Monitoring Division staff during the odor surveys conducted May 15 through 17, 2018.

Stinging sensations in nasal passages were experienced by the TCEQ Water Section investigators on May 15, 2018.

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

According to FIDO protocol, frequency is based on the number of times that an odor has been complained about and documented to have occurred by an investigator during fixed periods prior to and including the day of the investigation. FIDO guidelines define a weekly frequency category as the documentation of odors during complaint odor surveys at least three times in any 30-day period. During the 30-day period of April 15 - May 15, 2018, TCEQ staff documented odor complaint surveys indicating landfill garbage and/or leachate odors coming from the direction of BRL at least the following three times: April 25, 2018 in Consolidated Compliance and Enforcement Data System (CCEDS) Investigation No. 1483662, May 9, 2018 in CCEDS Investigation No. 1484886 and during the current investigation on May 15, 2018. Corresponding odor logs for the April 25 and May 9, 2018 investigations are included in Attachment 6. Based on these occurrences, the frequency of odors documented by TCEQ staff as of May 15, 2018 was a weekly occurrence.

FIDO guidelines define a daily frequency category as the documentation of odors during complaint odor surveys at least three consecutive times in a 14-day rolling period. TCEQ staff documented odor complaint surveys indicating landfill garbage and/or leachate odors coming from the direction of BRL on May 9, 15, 16, and 17, 2018. At a daily frequency, an offensive odor at a moderate intensity, or a highly offensive odor at a light intensity for at least 10 minutes constitutes a nuisance under 30 TAC 101.4. An offensive odor at a strong intensity, or a highly offensive odor at a moderate intensity for at least one (1) minute constitutes a nuisance.

Based on the FIDO chart, leachate, sewage, hydrogen sulfide, sulfur, etc. are characterized as having highly offensive odors. Landfill garbage and organic products like paint are characterized as having offensive odors. Honeysuckle and sweet chemical odors are characterized as not unpleasant.

According to FIDO protocol, nuisance conditions were confirmed on May 15, 16, and 17, 2018. Specifically, during the off-site odor surveys conducted on May 15, 2018, TCEQ Monitoring Division staff detected strong and offensive landfill garbage/sour rotten odors continuously during the 11 minutes spent downwind of Blue Ridge Landfill at Juniper Springs Drive in Pearland. At a weekly frequency, an offensive odor at a strong intensity for at least 10 minutes constitutes a nuisance under 30 TAC 101.4.

On May 16, 2018, TCEQ Monitoring Division staff detected moderate and offensive garbage odors continuously for 37 minutes. On May 17, 2018, TCEQ Monitoring Division staff detected moderate and offensive garbage odors for 30 and 38 minutes and strong and offensive garbage odors for 16 minutes downwind of Blue Ridge Landfill. Based on a daily frequency, a moderate intensity for at least 10 minutes or a strong intensity for one minute represents a nuisance for an offensive odor. This is further discussed in the Summary of Investigation Findings section of this report.

TCEQ staff also detected light and offensive and very light and offensive landfill garbage odors on May 15, 16, and 17, 2018, but not at a duration to represent an odor nuisance.

ADDITIONAL INFORMATION

On June 15, 2018, the TCEQ Monitoring Division provided the TCEQ Houston Region Office with a summary of the sampling event that took place on May 15 through 17, 2018 (Attachment 7). According to the summary, odor surveys were documented in coordination with measurements from the Picarro hydrogen sulfide (H₂S) analyzer and measurements of methane concentrations to determine if either of these measurable compounds could be used as "markers" for odorous conditions. The methane concentration and odor intensity exhibited a qualitative correlation. Odor characteristics in the Shadow Creek Ranch neighborhood were consistent with the observed odors from BRL and were accompanied with the signature methane measurements associated with landfill gases. Area facilities, excluding BRL, produce notable odors that are not consistent in character with odors observed in the Shadow Creek Ranch neighborhood. BRL and Lonestar Landfill both have garbage odors, but odor characteristics are distinct between the two facilities due in part to the difference in H₂S content.

SUMMARY OF INVESTIGATION FINDINGS

OUTSTANDING ALLEGED VIOLATION

The following alleged violation was noted during the May 9 through 17, 2018 investigation as documented on the "TCEQ Exit Interview Form: Potential Violations and/or Records Requested" (Attachment 8) and remains outstanding.

30 Texas Administrative Code (TAC) Chapter 101.4 and 5C Texas Health and Safety Code (THSC) Chapter 382.085(a) and (b) – Unauthorized Emissions Prohibited (Category A10.a.)

Blue Ridge Landfill failed to prevent nuisance odor conditions.

Specifically, during the off-site odor surveys conducted on May 15, 2018 at 10:48 a.m., TCEQ Monitoring Division staff detected strong and offensive landfill garbage/sour rotten odors continuously during the 11 minutes spent downwind of BRL at Juniper Springs Drive in Pearland. Based on the Odor Frequency, Intensity, Duration and Offensiveness (FIDO) chart, landfill garbage is characterized as having an offensive odor. During the 30-day period of April 15 - May 15, 2018, TCEQ staff detected during odor complaint surveys landfill gas/leachate and/or

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landfill garbage odors coming from the direction of BRL at least three times (on April 25, May 9, and May 15, 2018). Based on these occurrences, the frequency of odors documented by TCEQ staff as of May 15, 2018 was a weekly occurrence. At a weekly frequency, an offensive odor at a strong intensity for at least 10 minutes constitutes a nuisance. Therefore, TCEQ Monitoring Division Staff documented a nuisance odor condition on May 15, 2018.

Also, on May 15, 2018 at 4:25 a.m., TCEQ Water Section investigators detected very light and highly offensive leachate odors during a 16-minute off-site survey. Based on the FIDO chart, landfill gas/leachate is characterized as having a highly offensive odor. The investigators experienced stinging sensations in their nasal passages due to the odors.

On May 16, 2018 at 1:17 a.m., TCEQ Monitoring Division staff detected moderate and offensive garbage odors continuously for 37 minutes. On May 17, 2018 at 12:48 a.m. and 1:45 a.m., TCEQ Monitoring Division staff detected moderate and offensive garbage odors for 38 and 30 minutes, respectively and strong and offensive garbage odors for 16 minutes at 3:20 a.m. downwind of BRL. Based on the documentation of odors during complaint odor surveys at least three consecutive times in a 14-day rolling period, the detection of odors on May 15, 16 and 17, 2018 represented a daily occurrence. Based on a daily frequency, a moderate intensity for at least 10 minutes or a strong intensity for one minute represents a nuisance for an offensive odor. Therefore, TCEQ Monitoring Division Staff also documented nuisance odor conditions on May 16 and 17, 2018.

Except as authorized by a commission rule or order, a person may not cause, suffer, allow, or permit the emission of any air contaminant or the performance of any activity that causes or contributes to, or that will cause or contribute to, air pollution.

NOE Date: 10/12/2018

**OUTSTANDING ALLEGED VIOLATION(S)
ASSOCIATED TO A NOTICE OF ENFORCEMENT**

Track Number: 693469

Compliance Due Date: To Be Determined

Violation Start Date: Unknown

30 TAC Chapter 101.4

5C THSC Chapter 382.085(a)

5C THSC Chapter 382.085(b)

Alleged Violation:

Investigation: 1489897

Comment Date: 10/12/2018

Blue Ridge Landfill (BRL) failed to prevent nuisance odor conditions.

Specifically, during the off-site odor surveys conducted on May 15, 2018 at 10:48 a.m., TCEQ Monitoring Division staff detected strong and offensive landfill garbage/sour rotten odors continuously during the 11 minutes spent downwind of BRL at Juniper Springs Drive in Pearland. Based on the Odor Frequency, Intensity, Duration and Offensiveness (FIDO) chart, landfill garbage is characterized as having an offensive odor. During the 30-day period of April 15 - May 15, 2018, TCEQ staff detected during odor complaint surveys landfill gas/leachate and/or landfill garbage odors coming from the direction of BRL at least three times (on April 25, May 9, and May 15, 2018). Based on these occurrences, the frequency of odors documented by TCEQ staff as of May 15, 2018 was a weekly occurrence. At a weekly frequency, an offensive odor at a strong intensity for at least 10 minutes constitutes a nuisance. Therefore, TCEQ Monitoring Division Staff documented a nuisance odor condition on May 15, 2018.

Also, on May 15, 2018 at 4:25 a.m., TCEQ Water Section investigators detected very light and highly offensive leachate odors during a 16-minute off-site survey. Based on the FIDO chart, landfill gas/leachate is characterized as having a highly offensive odor. The investigators experienced stinging sensations in their nasal passages due to the odors.

BLUE RIDGE LANDFILL - FRESNO

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On May 16, 2018 at 1:17 a.m., TCEQ Monitoring Division staff detected moderate and offensive garbage odors continuously for 37 minutes. On May 17, 2018 at 12:48 a.m. and 1:45 a.m., TCEQ Monitoring Division staff detected moderate and offensive garbage odors for 38 and 30 minutes, respectively and strong and offensive garbage odors for 16 minutes at 3:20 a.m. downwind of BRL. Based on the documentation of odors during complaint odor surveys at least three consecutive times in a 14-day rolling period, the detection of odors on May 15, 16 and 17, 2018 represented a daily occurrence. Based on a daily frequency, a moderate intensity for at least 10 minutes or a strong intensity for one minute represents a nuisance for an offensive odor. Therefore, TCEQ Monitoring Division Staff also documented nuisance odor conditions on May 16 and 17, 2018.

Except as authorized by a commission rule or order, a person may not cause, suffer, allow, or permit the emission of any air contaminant or the performance of any activity that causes or contributes to, or that will cause or contribute to, air pollution.

Recommended Corrective Action: Submit a written description of corrective action taken and the required documentation demonstrating that compliance has been achieved for this outstanding alleged violation.

Signed  Date 10/12/18
Environmental Investigator

Signed Alma L. Jefferson Date 10/12/2018
Supervisor

Attachments: (in order of final report submittal)

- | | |
|---|---|
| <input checked="" type="checkbox"/> Enforcement Action Request (EAR) | <input checked="" type="checkbox"/> Maps, Plans, Sketches |
| <input checked="" type="checkbox"/> Letter to Facility (specify type): <u>NOE</u> | <input type="checkbox"/> Photographs |
| <input type="checkbox"/> Investigation Report | <input type="checkbox"/> Correspondence from the facility |
| <input type="checkbox"/> Sample Analysis Results | <input checked="" type="checkbox"/> Other (specify): |
| <input type="checkbox"/> Manifests | <u>See list of Attachments</u> |
| <input type="checkbox"/> Notice of Registration | |