

AIR CP_100219393_CP_20160111_INVESTIGATION_1305299
Texas Commission on Environmental Quality
Investigation Report

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Customer: Akzo Nobel Surface Chemistry LLC
Customer Number: CN601580566

Regulated Entity Name: AKZO NOBEL SURFACE CHEMISTRY

Regulated Entity Number: RN100219393

Investigation # 1305299

Incident Numbers

223560	223585
223548	223511
223252	223090
223543	223266
223253	223264
223523	223280
223409	223567
223423	223569
223519	223286
223545	223556

Investigator: JUSTIN MAYWORN

Site Classification MAJOR SOURCE

Conducted: 11/19/2015 -- 01/11/2016

NAIC Code: 325613

SIC Code: 2843

Program(s): AIR OPERATING PERMITS

Investigation Type: Compliance Investigation

Location: APPROX 7 MI S OF I-610 LOOP ON
ALMEDA RD

Additional ID(s): 1328
FG0042L

Address: 15200 ALMEDA RD,
HOUSTON, TX , 77053

Local Unit: REGION 12 - HOUSTON

Activity Type(s): AIRCOMPL - AIR CMPL - AIR
COMPLAINT INV

Principal(s):

Role	Name
RESPONDENT	AKZO NOBEL SURFACE CHEMISTRY LLC

Contact(s):

Role	Title	Name	Phone
REGULATED ENTITY MAIL CONTACT	SITE DIRECTOR	MR JOS CLAESSEN	Fax (713) 433-5489 Phone (713) 434-4479
REGULATED ENTITY CONTACT	SENIOR ENVIRONMENTAL ENGINEER	MR SERGIO SEPULVEDA	Phone (713) 434-4430 Fax (713) 433-5489

AKZO NOBEL SURFACE CHEMISTRY - HOUSTON

11/19/2015 to 1/11/2016 Inv. # - 1305299

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Other Staff Member(s):

Role	Name
QA Reviewer	JOSEPH DOBY
Investigator	GABRIELLE LAMOREAUX
QA Reviewer	MARK KOLKMEIER
Supervisor	JOSEPH DOBY

Associated Check List

Checklist Name

AIR COMPLAINT INVESTIGATION

Unit Name

Site Wide

Investigation Comments:

INTRODUCTION

Introduction

On the dates of November 14, 17, 18, 19, and 20 of 2015, TCEQ received twenty-five (25) complaints (documented in twenty (20) incidents) by telephone and e-mail regarding a strong odor in the vicinity of Shadow Creek Ranch neighborhood in Pearland, Texas.

All complainants claimed that a very strong chemical and/or garbage odor was present either in the morning (0400-0900) or in the evening (1800-2100). This odor occurred intermittently, usually once or twice per week. Complainants claimed that this had been going on for many months, and some claimed it had been occurring for years. The majority believed that the source of the odor was the Akzo Nobel surfactant plant to the northwest of the subdivision, with a fewer number claiming that the source was the Blue Ridge landfill to the west of the subdivision. Two of the complainants claimed to be experiencing health effects. One of the two complainants alleged that the odor was irritating their child's asthma. The second complainant claimed the odor caused their eyes to burn. Many of the complainants expressed concern for their health, but did not allege any health effects.

In order to identify the most probable source and to determine whether a nuisance condition existed, the investigators conducted thirty (30) minute odor logs at thirteen (13) points surrounding Akzo Nobel and Blue Ridge landfill at a distance that was approximately equidistant to the complainant's locations from the sources. Odors were assessed for frequency, intensity, duration, and offensiveness.

Map of source location is included in Attachment 1.

As a note, the TCEQ previously conducted a Minor Source New Source Review (MNSR) investigation at Akzo Nobel on October 2, 2015 (Investigation #128606).

Investigation Narrative

Date of investigations: November 19 and 20, 2015
Names of investigators: Justin Mayworn, Gabrielle Lamoreaux
Time of arrival: 1017 (November 19), and 0631 (November 20)

Description of the surrounding land use: Residential and industrial
Description of the terrain: Flat with sporadic forest

Meteorological conditions November 14, 2015 (alleged incident date)

Cloud Cover: Partly cloudy
Wind direction: Northeast
Wind Speed: 9 mph
Temperature: 63 degrees Fahrenheit
Precipitation: 0 in
Source of Meteorological Conditions: Weather Underground (KAXH)

Meteorological conditions November 17, 2015 (alleged incident date)

Cloud Cover: Partly cloudy

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Wind direction: Southeast
Wind Speed: 16 mph
Temperature: 77 degrees Fahrenheit
Precipitation: 1.42 in
Source of Meteorological Conditions: Weather Underground (KAXH)

Meteorological conditions November 18, 2015 (alleged incident date)
Cloud Cover: Partly cloudy
Wind direction: Southwest
Wind Speed: 3 mph
Temperature: 77 degrees Fahrenheit
Precipitation: 0 in
Source of Meteorological Conditions: Weather Underground (KAXH)

Meteorological conditions November 19, 2015 (alleged incident date and investigation date)
Cloud Cover: Partly cloudy
Wind direction: Northeast
Wind Speed: 4 mph
Temperature: 80 degrees Fahrenheit
Precipitation: 0 in
Source of Meteorological Conditions: Weather Underground (KAXH)

Meteorological conditions November 20, 2015 (alleged incident date and investigation date)
Cloud Cover: Partly cloudy
Wind direction: Northeast
Wind Speed: 10 mph
Temperature: 71 degrees Fahrenheit
Precipitation: 0 in
Source of Meteorological Conditions: Weather Underground (KAXH)

November 19, 2015

Environmental Investigators Mr. Justin Mayworn and Ms. Gabrielle Lamoreaux arrived at location 1 (see attachment 3 for a map of observation locations) at 1017 to observe for odor nuisance. A very light to light manure smell was detected, but was not of sufficient frequency, intensity, duration, and offensiveness to confirm a nuisance condition. A thirty (30) minute odor log was taken. The investigators left the complainant's home at 1101.

At 1109 the investigators arrived at location 2 to observe for odor. A thirty (30) minute log was conducted. No odor was detected. At 1142 the investigators left the site.

At 1147 the investigators arrived at location 3 to observe for odor. A thirty (30) minute log was conducted. A very light landfill gas smell was detected, but was not of sufficient frequency, intensity, duration, and offensiveness to confirm a nuisance condition. The investigators left the site at 1217.

At 1231 the investigators arrived at Southbelt Industrial Drive, Pearland. This street is a light industrial park located on the north side of Shadow Creek neighborhood. The investigators spent approximately one (1) hour slowly driving down the street observing for odor. Thirty-one (31) businesses were surveyed. No odor was detected. The investigators departed at 1328.

At 1333 the investigators arrived at location 4 to observe for odor. A thirty (30) minute log was conducted. A very light landfill gas smell was detected, but was not sufficient frequency, intensity, duration, and offensiveness to confirm a nuisance condition. The investigators departed at 1403.

At 1408 the investigators arrived at location 5 to observe for odor. A thirty (30) minute log was conducted. No odor was detected. The investigators departed at 1436.

At 1448 the investigators arrived at the Akzo Nobel surfactant plant located at 15200 Almeda Road, Houston, 77053. The investigators met with Mr. Sergio Sepulveda (Senior Environmental Engineer) and made a records request for all emissions events, upsets, or maintenance activities that could have resulted in increased or unusual

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emissions for the period of August 1, 2015 to November 19, 2015. These records were provided later the same day. For the requested period there was one (1) deviation that occurred on October 26, 2015 where scrubber V008 was operated below the required flow for seven (7) hours. No excess or unauthorized emissions occurred during this event. This event will be included in Akzo Nobel's semiannual deviation report that is due in March 2016. The investigators departed Akzo Nobel at 1515.

At 1521 the investigators made a final odor observation at location 6. A thirty (30) minute log was conducted. A very light landfill gas smell was detected, but was not of sufficient frequency, intensity, duration, and offensiveness to confirm a nuisance condition. The investigators departed at 1553.

November 20, 2015

For this day of the investigation Mr. Mayworn and Ms. Lamoreaux conducted individual odor observations to increase log coverage and increase the probability of identifying potential odors during the period of 0600-0900, when the odor is alleged to be the most intense and offensive.

At 0631 Mr. Mayworn arrived at location 7 to observe for odor. A thirty (30) minute log was conducted. A very light landfill gas smell was detected, but was not of sufficient frequency, intensity, duration, and offensiveness to confirm a nuisance condition. The investigator departed at 0715.

At 0642 Ms. Lamoreaux arrived at location 8 to observe for odor. A thirty (30) minute log was conducted. No odor was detected. The investigator departed at 0711.

At 0727 Mr. Mayworn arrived at location 9 to observe for odor. A thirty (30) minute log was conducted. A very light chemical smell was detected, but was not of sufficient frequency, intensity, duration, and offensiveness to confirm a nuisance condition. The investigator departed at 0804.

At 0733 Ms. Lamoreaux arrived at location 10 to observe for odor. A thirty (30) minute log was conducted. No odor was detected. The investigator departed at 0804.

At 0856 Mr. Mayworn arrived at location 11 to observe for odor. A thirty (30) minute log was conducted. No odor was detected. The investigator departed at 0928.

At 0932 the investigators arrived at location 12 to observe for odor. A thirty (30) minute log was conducted. No odor was detected. The investigators departed at 1002.

At 1005 the investigators arrived at location 13 to observe for odor. A thirty (30) minute log was conducted. No odor was detected. The investigators departed at 1040.

Odor logs are included in attachment 2.

Odor survey route maps are included in attachment 3.

Facility Authorization Narrative

A MNSR investigation was conducted at Akzo Nobel Surface Chemistry on October 2, 2015 (see investigation #1282606 for further details). The investigator reviewed the facility's applicable air authorizations during the investigation.

Exit Interview

A records request was made of Akzo Nobel Surface Chemistry for the period of August through November 2015 of all emissions events, upsets, and unusual events to check for compliance with emission and reporting standards. On November 19, 2015 these records were provided by Mr. Sergio Sepulveda of Akzo Nobel. A subsequent exit interview was not conducted since there were no alleged violations or additional issues.

In addition, the complainants were contacted with the results of the investigation.

GENERAL FACILITY AND PROCESS INFORMATION

Process Description

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Akzo Nobel Surface Chemistry is a batch chemical processing plant which specializes in producing surfactants, including soaps and detergents. Further details can be found in the Houston regional files.

BACKGROUND

Agreed Orders, Court Orders, and Other Compliance Agreements

Based on review of CCEDS, regional office files, and enforcement database, there were four (4) Agreed Orders (AO) issued to the regulated entity by the TCEQ within the last five (5) years. There are no outstanding technical requirements in these AO.

Agreed Order Docket No. 2010 0738 AIR E. Effective Date: 02/05/2011

Agreed Order Docket No. 2010 1709 AIR E. Effective Date: 05/22/2011

Agreed Order Docket No. 2011 0120 UIC E. Effective Date: 07/02/2011

Agreed Order Docket No. 2011 0451 AIR E. Effective Date: 08/27/2011

Prior Enforcement Issues

Based on review of CCEDS and enforcement database, there was one (1) Notice of Violation (NOVs) and no Notices of Enforcement (NOEs) issued by the TCEQ to the regulated entity in the last five years.

Complaints

Based on review of CCEDS, there were fifty-five (55) complaints filed against the regulated entity for the past two years.

ADDITIONAL INFORMATION

Conclusions, Recommendations, and Current Enforcement Actions

A light to very light chemical, manure, or landfill gas odor was detected at six (6) locations during the thirteen (13) odor surveys performed during the investigation. The investigators did not note odors at a frequency, intensity, duration, or offensiveness that would constitute a nuisance condition. There were no violations alleged as a result of the investigation.

Additional Issues

No additional issues were noted during this investigation.

REPORT ATTACHMENTS

1. Area Map
2. Investigator's Odor Logs (November 19 and 20, 2015)
3. Odor Survey Route Maps (November 19 and 20, 2015)
4. Odor Investigation Checklist

No Violations Associated to this Investigation

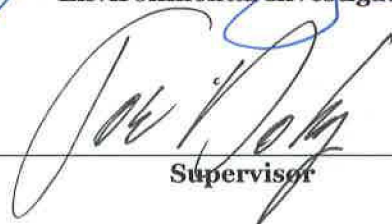
Signed


Environmental Investigator

Date

2/22/16

Signed


Supervisor

Date

2/22/16

Attachments: (in order of final report submittal)

___ Enforcement Action Request (EAR)

☒ Letter to Facility (specify type): Gen Compliance

___ Investigation Report

___ Sample Analysis Results

___ Manifests

___ Notice of Registration

☒ Maps, Plans, Sketches

___ Photographs

___ Correspondence from the facility

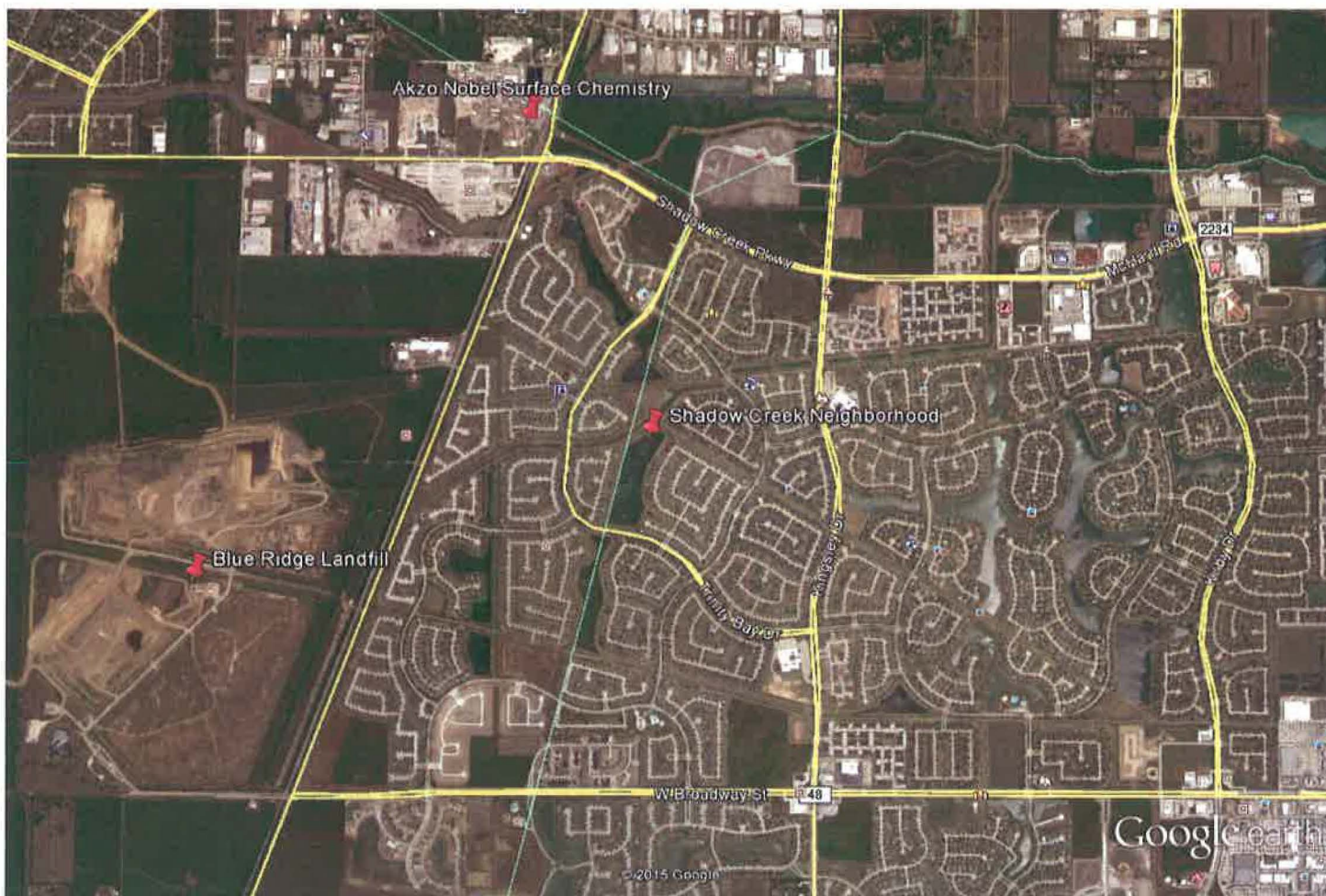
☒ Other (specify):

checklist, Odor Log

Attachment 1

Area Map of Shadow Creek, Akzo Nobel, and Blue Ridge Landfill

Location: Pearland, Texas



Google earth

miles
km



Area Map

Investigation Type: CMPL
Air Account NO: FG 0042 L
Attachment: 1
Page 1 of 1

Attachment 2

Odor Logs

Date: November 19 and 20, 2015

Investigator's Odor Intensity Time Log

Date of Investigation: 11/19/2015

Start Time 10:28

Name and Address of Alleged Source: Location 1

Investigator's Name: Print: Justin Mayworn

Sign: [Signature]

Minutes	Odor Intensity VL, L, M, S, VS
1 min	—
2	—
3	—
4	—
5	—
6	—
7	—
8	—
9	—
10	VL
11	—
12	VL-L
13	—
14	—
15	—
16	—
17	VL
18	L
19	VL
20	VL
21	—
22	—
23	VL
24	—
25	VL
26	VL
27	—
28	—
29	—
30	—

Minutes	Odor Intensity VL, L, M, S, VS
31 min	
32	
33	
34	
35	
36	
37	
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40	
41	
42	
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Investigation Type: CMPL
 Air Account NO: FL 0042 L
 Attachment: 2
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Offensiveness: Highly _____ Offensive _____ Unpleasant X Strong smell Not Unpleasant _____
 Dominant Odor Intensity For:

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

Location: [Redacted] /

Investigator's Odor Intensity Time Log

Date of Investigation: 11/19/15 Start Time 1111
 Name and Address of Alleged Source: LOCAL 042
 Investigator's Name: Print: Justin Mayworn Sign: [Signature]

Minutes	Odor Intensity VL, L, M, S, VS
1 min	—
2	—
3	—
4	—
5	—
6	—
7	—
8	—
9	—
10	—
11	—
12	—
13	—
14	—
15	—
16	—
17	—
18	—
19	—
20	—
21	—
22	—
23	—
24	—
25	—
26	—
27	—
28	—
29	—
30	—

Minutes	Odor Intensity VL, L, M, S, VS
31 min	
32	
33	
34	
35	
36	
37	
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41	
42	
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Investigation Type: CMPL
 Air Account NO: FL 042 L
 Attachment: 2
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Offensiveness: Highly _____ Offensive _____ Unpleasant _____ Not Unpleasant _____
 Dominant Odor Intensity For:

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

Location: [Redacted] 2

Investigator's Odor Intensity Time Log

Date of Investigation: 11/19/15

Start Time 11:49

Name and Address of Alleged Source: Location 3

Investigator's Name: Print: Maywein/Lamoreaux

Sign: [Signature]

Minutes	Odor Intensity VL, L, M, S, VS
1 min	—
2	—
3	—
4	—
5	—
6	VL
7	—
8	VL
9	—
10	VL
11	VL
12	—
13	—
14	—
15	—
16	—
17	—
18	—
19	VL
20	—
21	VL
22	—
23	—
24	—
25	—
26	—
27	—
28	—
29	—
30	—

Minutes	Odor Intensity VL, L, M, S, VS
31 min	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
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Investigation Type: CMPL
 Air Account NO: IL 6042 L
 Attachment: 2
 Page 3 of 13

Offensiveness: Highly _____ Offensive ☒ Unpleasant _____ Not Unpleasant _____

Dominant Odor Intensity For:

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

wind direction = Coming from North west [Redacted] Landfill Gas
 Location: 2716 Green Mtn Dr. Prairland 77584

Investigator's Odor Intensity Time Log

Date of Investigation: 11/19/2015 Start Time 1:33

Name and Address of Alleged Source: location 4

Investigator's Name: Print: Justin Mayworm

Sign: [Signature]

Minutes	Odor Intensity VL, L, M, S, VS
1 min	—
2	VL
3	—
4	—
5	—
6	—
7	—
8	—
9	—
10	VL
11	VL
12	—
13	—
14	VL
15	VL
16	—
17	—
18	—
19	—
20	—
21	—
22	—
23	—
24	—
25	—
26	—
27	—
28	VL
29	—
30	VL

Minutes	Odor Intensity VL, L, M, S, VS
31 min	
32	
33	
34	
35	
36	
37	
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41	
42	
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Investigation Type: CMP
 Air Account NO: FL 6042 L
 Attachment: 2
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Offensiveness: Highly _____ Offensive X Unpleasant _____ Not Unpleasant _____
 Dominant Odor Intensity For:

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

wind direction coming from East, South-East
 @ 15200 West Drive Akzo Nobel

Investigator's Odor Intensity Time Log

Date of Investigation: 11/19/2015 Start Time 209

Name and Address of Alleged Source: location 5

Investigator's Name: Print: Justin Mayworm

Sign: [Signature]

Minutes	Odor Intensity VL, L, M, S, VS
1 min	
2	
3	
4	
5	
6	
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12	
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21	
22	
23	
24	
25	
26	
27	
28	
29	
30	

Minutes	Odor Intensity VL, L, M, S, VS
31 min	
32	
33	
34	
35	
36	
37	
38	
39	
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41	
42	
43	
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Investigation Type: LMP
 Air Account NO: FE 0042 L
 Attachment: 2
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Offensiveness: Highly _____ Offensive _____ Unpleasant _____ Not Unpleasant _____

Dominant Odor Intensity For:

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

wind direction coming from East, South East

intersection of Evergreen St. & Kentucky Rd

Investigator's Odor Intensity Time Log

Date of Investigation: 11/19/15 Start Time 1523
 Name and Address of Alleged Source: location 6
 Investigator's Name: Print: Justin Maymorn Sign: [Signature]

Minutes	Odor Intensity VL, L, M, S, VS
1 min	—
2	—
3	—
4	—
5	—
6	—
7	—
8	—
9	—
10	—
11	—
12	—
13	—
14	—
15	—
16	VL
17	L
18	—
19	—
20	—
21	—
22	VL
23	—
24	—
25	—
26	—
27	—
28	—
29	—
30	—

Minutes	Odor Intensity VL, L, M, S, VS
31 min	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
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Investigation Type: CMPL
 Air Account NO: F6 0042 L
 Attachment: 2
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Offensiveness: Highly _____ Offensive ☒ Unpleasant _____ Not Unpleasant _____
 Dominant Odor Intensity For:

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

Location: Greater Houston
Gwin Club.
 Wind: East-SE 0-5mph

Landfill Gas odor

Investigator's Odor Intensity Time Log

Date of Investigation: 11/20/15 Start Time 0631
 Name and Address of Alleged Source: Location 7
 Investigator's Name: Print: Justin Maywain Sign: Gabrielle Lamoreaux

Minutes	Odor Intensity VL, L, M, S, VS
1 min	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
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22	
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25	
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27	
28	
29	
30	

Minutes	Odor Intensity VL, L, M, S, VS
31 min	
32	VL
33	
34	
35	
36	
37	
38	
39	
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41	
42	
43	
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• Manure

Investigation Type: LMPL
 Air Account NO: FB 6042 L
 Attachment: 2 of 13
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Offensiveness: Highly _____ Offensive _____ Unpleasant ☒ Not Unpleasant _____
 Dominant Odor Intensity For:

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

Location: [Redacted] [Redacted] [Redacted] 7
 wind direction coming from EAST

Investigator's Odor Intensity Time Log

Date of Investigation: 11/20/15

Start Time 0641

Name and Address of Alleged Source: Location 0

Investigator's Name: Print: Justin Maymon

Sign: [Signature]

Minutes	Odor Intensity VL, L, M, S, VS
1 min	1
2	1
3	1
4	1
5	1
6	1
7	1
8	1
9	1
10	1
11	1
12	1
13	1
14	1
15	1
16	1
17	1
18	1
19	1
20	1
21	1
22	1
23	1
24	1
25	1
26	1
27	1
28	1
29	1
30	1

Minutes	Odor Intensity VL, L, M, S, VS
31 min	
32	
33	
34	
35	
36	
37	
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40	
41	
42	
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Investigation Type: CMPL
 Air Account NO: FL 0042 L
 Attachment: 2
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Offensiveness: Highly _____ Offensive _____ Unpleasant _____ Not Unpleasant _____

Dominant Odor Intensity For:

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

Location: [Redacted]

Wind: S, E

Investigator's Odor Intensity Time Log

Date of Investigation: 11/20/2015 Start Time 7:27
 Name and Address of Alleged Source: location 9
 Investigator's Name: Print: Gabrielle Lamoreaux Sign: [Signature]

Minutes	Odor Intensity VL, L, M, S, VS
1 min	—
2	—
3	—
4	—
5	—
6	—
7	—
8	—
9	—
10	VL
11	VL
12	—
13	—
14	—
15	—
16	—
17	—
18	—
19	—
20	—
21	—
22	—
23	—
24	—
25	VL
26	—
27	—
28	—
29	—
30	—

Minutes	Odor Intensity VL, L, M, S, VS
31 min	—
32	—
33	—
34	—
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41	
42	
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more East wind

Investigation Type: CMPL
 Air Account NO: FB 0042 L
 Attachment: 2
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Sweet chemical

Offensiveness: Highly _____ Offensive _____ Unpleasant _____ Not Unpleasant _____
 Dominant Odor Intensity For:

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

wind direction coming from North, North East

Investigator's Odor Intensity Time Log

Date of Investigation: 11/20/15 Start Time 0733
 Name and Address of Alleged Source: location 10
 Investigator's Name: Print: Justin Maynor Sign: [Signature]

Minutes	Odor Intensity VL, L, M, S, VS
1 min	1
2	1
3	1
4	1
5	1
6	1
7	1
8	1
9	1
10	1
11	1
12	1
13	1
14	1
15	1
16	1
17	1
18	1
19	1
20	1
21	1
22	1
23	1
24	1
25	1
26	1
27	1
28	1
29	1
30	1

Minutes	Odor Intensity VL, L, M, S, VS
31 min	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
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57	
58	
59	
60	

Investigation Type: LMP
 Air Account NO: FL 60421
 Attachment: 2
 Page: 10 of 13

Offensiveness: Highly _____ Offensive _____ Unpleasant _____ Not Unpleasant _____
 Dominant Odor Intensity For:

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

Location: GH66
 Wind: E-S

Investigator's Odor Intensity Time Log

Date of Investigation: 11/20/2015 Start Time 8:56am
 Name and Address of Alleged Source: Location 11
 Investigator's Name: Print: Gabrielle Lamoreaux Sign: [Signature]
Sustin Mayworn

Minutes	Odor Intensity VL, L, M, S, VS
1 min	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	

Minutes	Odor Intensity VL, L, M, S, VS
31 min	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
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56	
57	
58	
59	
60	

Investigation Type: CMP
 Air Account NO: FL 60421
 Attachment: 2
 Page 11 of 13

Offensiveness: Highly _____ Offensive _____ Unpleasant _____ Not Unpleasant _____
 Dominant Odor Intensity For:

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

3153 Morgan Meadow Lane
 Wind Direction coming from East, South East.

Investigator's Odor Intensity Time Log

Date of Investigation: 11/20/2015 Start Time 9:32am
 Name and Address of Alleged Source: Location 12
 Investigator's Name: Print: Justin Maguaron Sign: [Signature]

Minutes	Odor Intensity VL, L, M, S, VS
1 min	
2	
3	
4	
5	
6	
7	
8	/
9	
10	/ /
11	
12	
13	
14	
15	
16	
17	/
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	

Minutes	Odor Intensity VL, L, M, S, VS
31 min	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
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59	
60	

Investigation Type: CMPL
 Air Account NO: FL 0042
 Attachment: 2
 Page 12 of 13

Offensiveness: Highly _____ Offensive _____ Unpleasant _____ Not Unpleasant _____
 Dominant Odor Intensity For:

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

Wind Direction coming from the EAST
 Intersection of Kentucky Rd &
 Evergreen St.

Oclor Log

Date 11/20/2015

Investigator: Justin Mayworm

Address: 2360 Nail Rd.

wind Direction: East, Start time: 10:05
South East.

Location 13

Justin Mayworm
Justin Mayworm

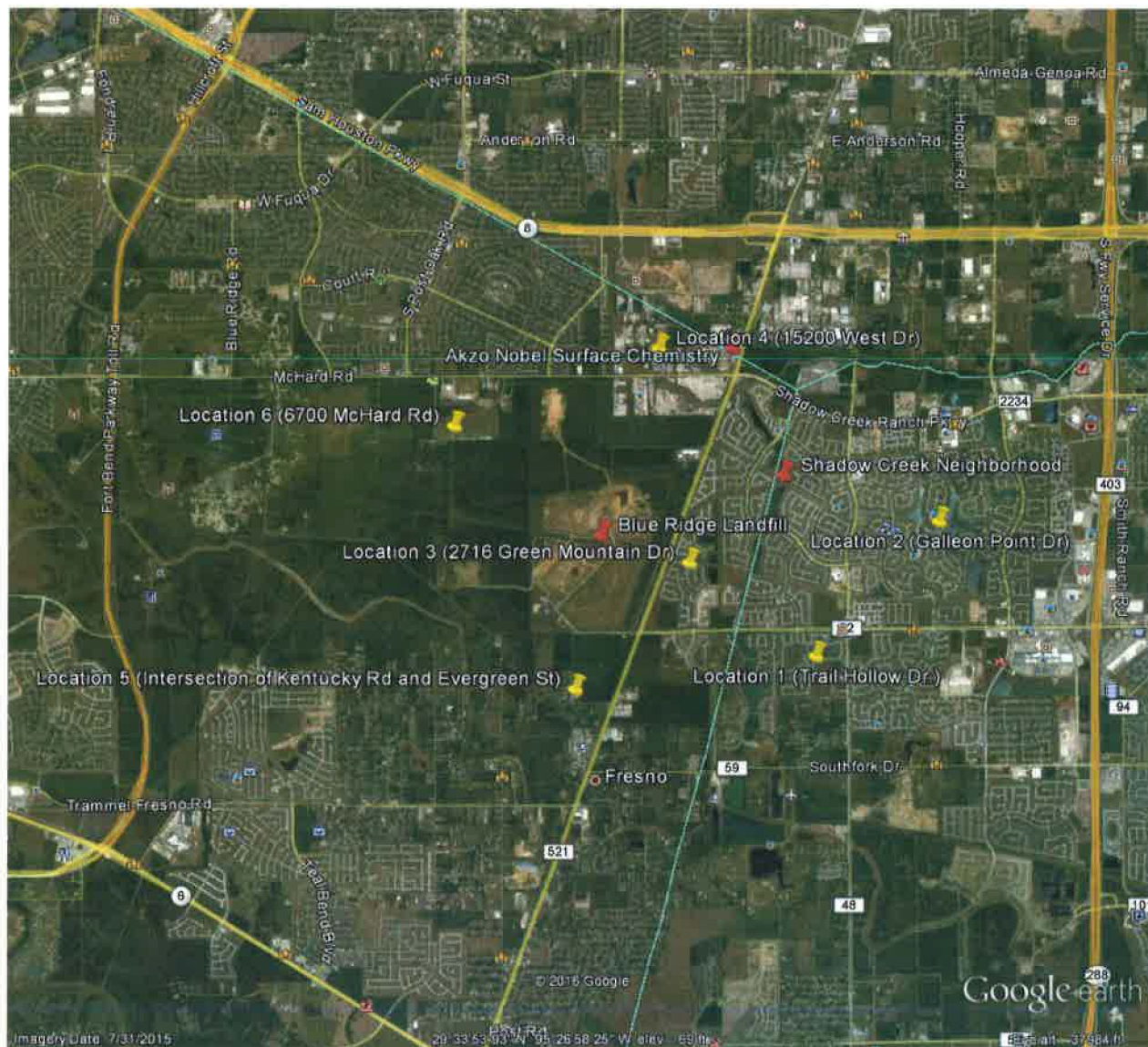
1	—	21	—
2	—	22	—
3	—	23	—
4	—	24	—
5	—	25	—
6	—	26	—
7	—	27	—
8	—	28	—
9	—	29	—
10	—	30	—
11	—		
12	—		
13	—		
14	—		
15	—		
16	—		
17	—		
18	—		
19	—		
20	—		

Investigation Type: CMPL
Air Account NO: F6 6042
Attachment: 2
Page 13 of 13

Attachment 3

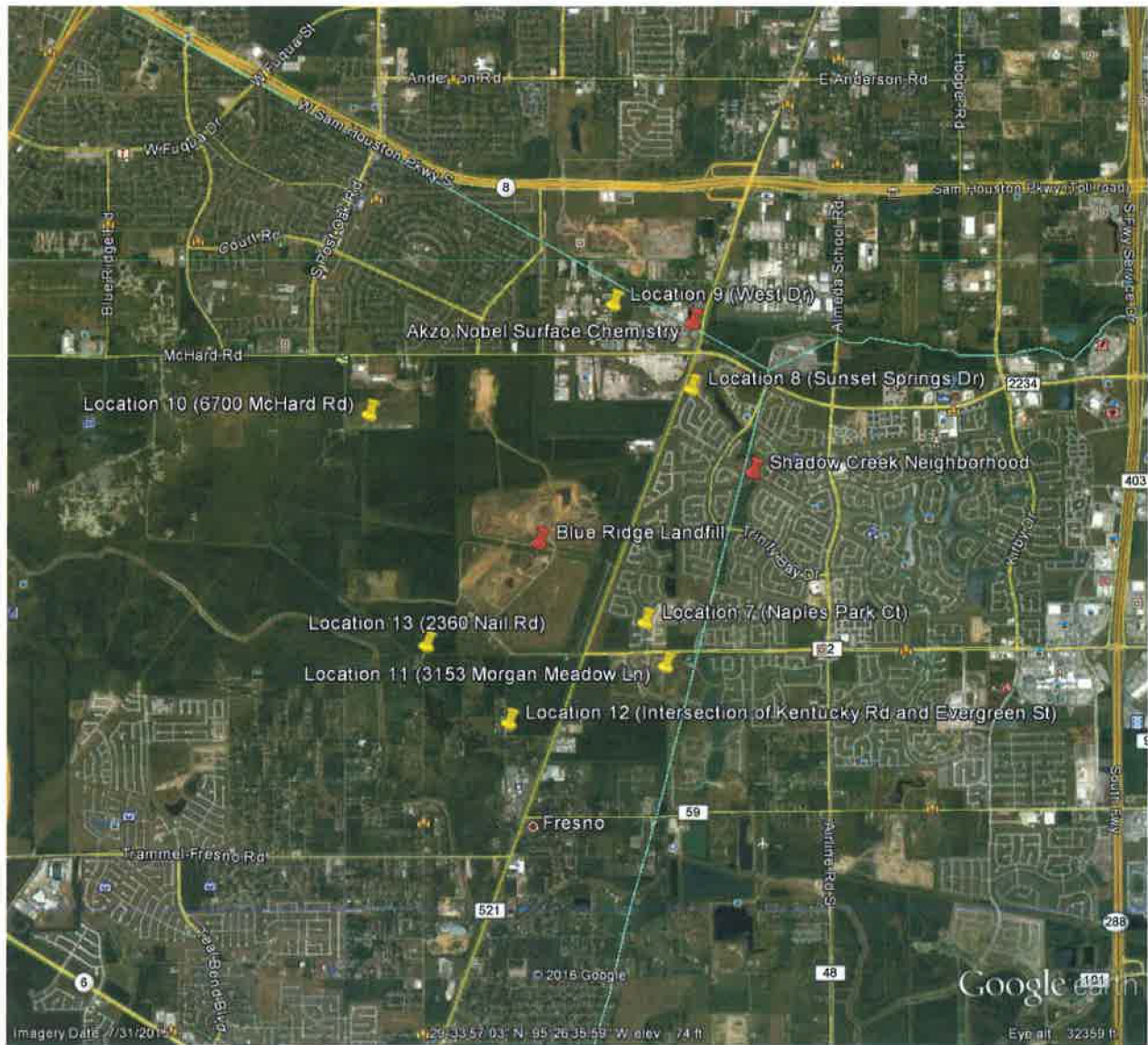
Odor Survey Route Maps

Date: November 19 and 20, 2015



Odor Survey Route Map (November 19, 2015)

Investigation Type: CMPL
 Air Account NO: FG 0042 L
 Attachment: 3
 Page 1 of 2



Odor Survey Route Map (November 20, 2015)

Investigation Type: C MPL
 Air Account NO: FG 0042 L
 Attachment: 3
 Page 2 of 2

Attachment 4

Odor Investigation Checklist

Date: November 19 and 20, 2015

TCEQ- ODOR INVESTIGATION CHECKLIST

Investigators Name: Justin Mayworn, Gabrielle Lamoreaux

Investigation Date: 11/19 - 11/20, 2015

SITE INFORMATION

Regulated Entity: Akzo Nobel Surface Chemistry

Address/Location: 15200 Alameda Rd, Houston TX 77053

Regulated Entity No.: 100219393

HEALTH EFFECTS

INVESTIGATOR (During Investigation):

- ☐ Nausea ☐ Headache ☐ Irritation: (Skin Eyes Nose Throat)
☐ Dizziness ☐ Breathing Difficulty
☐ Other _____

COMMENTS: None

COMPLAINANT (historical):

- ☐ Nausea ☐ Headache ☒ Irritation: (Skin Eyes Nose Throat)
☐ Dizziness ☒ Breathing Difficulty
☐ Other _____

COMMENTS: None

Investigation Type: C MPL
Air Account NO: FG 0042 L
Attachment: 4
Page 1 of 2

NUISANCE ODORS

Odor Detected: Yes No (if no, skip to Narrative)

ODOR OFFENSIVENESS:

Highly Offensive

Offensive

Unpleasant

Not unpleasant

TYPE/DESCRIPTION OF ODOR: Landfill gas, chemical, manure

ODOR INTENSITY

Dominant Odor Intensity For:

	Very Strong	Strong	Medium	Light	Very Light	N/A
1 Min.						
10 Min.					X	
1 Hr.						

ODOR FREQUENCY:

Single Event	Daily	Weekly	Monthly	Quarterly
X				

NARRATIVE

Complainant Odor Log given to complainant:

YES

NO

Complainant Odor Log attached:

YES

NO

COMPLAINANT COMMENTS: None

INVESTIGATOR COMMENTS: None

Investigation Type: CMP
Air Account NO: FG 0002 L
Attachment: 4
Page 2 of 2