

AIR NSR
BR0001A/RN101993764/705/CO/20140828/Investigation Report
Texas Commission on Environmental Quality
Investigation Report

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Customer: Koppers Inc.
Customer Number: CN602411605

Regulated Entity Name: KOPPERS INDUSTRIES

Regulated Entity Number: RN101993764

Investigation # 1192595

Incident Numbers

202269

202883

Investigator: SARAH MOMAN

Site Classification

RECEIVED

Conducted: 08/28/2014 -- 08/28/2014

SIC Code: 2491

NAIC Code: 321114

SIC Code: 4011

NAIC Code: 482111

JAN 13 2015

**TCEQ
CENTRAL FILE ROOM**

Program(s): AIR NEW SOURCE PERMITS

Investigation Type: Compliance Investigation

Location: 290 County Rd 423, Somerville, TX

Additional ID(s): 83674
705
BR0001A

Address: 290 COUNTY ROAD 423,
SOMERVILLE, TX , 77879

Local Unit: REGION 09 - WACO

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

Principal(s):

| Role | Name |
|-------------|-------------|
| RESPONDENT | KOPPERS INC |

Contact(s):

| Role | Title | Name | Phone |
|-----------------------------|---------------|------------------------|----------------|
| Regulated Entity Contact | PLANT MANAGER | MR WILLIAM R NEWTON | (979) 596-1321 |

Other Staff Member(s):

| Role | Name |
|--------------|----------------|
| Investigator | JESSICA GABLER |
| Supervisor | JASON NEUMANN |
| Supervisor | ELIJAH GANDEE |

Associated Check List

| <u>Checklist Name</u> | <u>Unit Name</u> |
|-----------------------------------------|-------------------------|
| AIR FOCUSED INVESTIGATION - ODOR SURVEY | Koppers |
| AIR COMPLAINT INVESTIGATION | Koppers |

Investigation Comments:

INTRODUCTION

KOPPERS INDUSTRIES - SOMERVILLE

8/28/2014 Inv. # - 1192595

Page 2 of 4

I, Elizabeth Moman, Environmental Investigator for the Texas Commission on Environmental Quality (TCEQ), Waco Regional Air Section, conducted this investigation in response to an odor complaint in Burleson County, Texas.

Daily Narrative

On July 31, 2014 at approximately 12:58 p.m., a complaint (Incident No. 202269) was received at the TCEQ Waco Regional Office. I spoke with the complainant at this time and gathered information regarding the alleged complaint. The complainant reported a strong creosote odor being emitted from Koppers Industries (Koppers) when the winds were out of the west/northwest. I informed the complainant I would be conducting an investigation of this complaint.

On August 25, 2014 at approximately 11:30 a.m., a complaint (Incident No. 202883) was received at the TCEQ Waco Regional Office. The complainant reported a strong creosote odor being emitted from Koppers Industries.

On August 26, 2014 at approximately 2:30 p.m., I contacted the complainant to inform them I would be conducting the investigation on August 28, 2014.

On August 28, 2014 at approximately 12:02 p.m., I arrived at the complainant's location and met with the complainant. I was accompanied by Ms. Jessica Gabler, TCEQ Environmental Investigator. The winds were out of the east/southeast at 6 to 9 mph. The sky was cloudy and the temperature was 90°F. No odors were experienced at this location. The complainant also stated they were not experiencing odors at that time. I inquired when the odors typically occur. The complainant stated the odor is typically present between 8:30 a.m. and 12:00 p.m. The complainant further stated the odor is typically present on Saturdays. We departed this location at approximately 12:10 p.m., and began an odor survey of the surrounding area (see Attachment No. 1).

Odor Survey Spot No. 1

At approximately 12:14 p.m., we arrived at a location crosswind of Koppers; located at the intersection of County Road 287 and 1361. No changes in the weather conditions were noted. We remained at this location for approximately 11 minutes and no odors were detected. We departed this location at approximately 12:25 p.m. and proceeded to the next survey spot.

Odor Survey Spot No. 2

At approximately 12:30 p.m., we arrived at a location upwind of Koppers, located at the intersection of Avenue A and 1361. No changes in the weather conditions were noted. We remained at this location for approximately 10 minutes. An intermittent light odor, which occurred for approximately 30 seconds at a time, was detected at this location. The odor was characterized as unpleasant. We departed this location at approximately 12:40 a.m. and proceeded to the next survey spot.

Odor Survey Spot No. 3

At approximately 12:45 p.m., we arrived at a crosswind location of Koppers, located near the intersection of Thornberry and 7th Street. No changes in the weather conditions were noted. We remained at this location for approximately 10 minutes and no odors were detected. We departed this location at approximately 12:55 p.m. and proceeded to Koppers.

At approximately 1:03 p.m., we arrived at Koppers. Upon entering the facility, a moderate creosote odor was experienced. The odor was constant and characterized as unpleasant. We proceeded to the office building located on site and met with Mr. William Newton, Plant Manager. I informed Mr. Newton of the complaint and nature of this investigation. I requested production records for July 31, 2014 and August 25, 2014. Mr. Newton provided me with a copy of the monthly production rates (see Attachment No. 2) and stated he would email the rest of the records to me later that week.

At this time, I requested a walk-through of the facility. Mr. Newton accompanied us around the facility and explained the daily processes that go on at Koppers. Mr. Newton showed us the 4 pressure cylinders used to treat the railroad ties with creosote. We also observed a covered area where the treated railroad ties are kept once they have been removed from the pressure cylinders. The covered area was equipped with piping used to spray the ties with Ecosorb which is a liquid used to neutralize odors. Mr. Newton stated they have been using this method for over 3 years now. I inquired how many days a week the facility operates. Mr. Newton stated they typically operate 5 to 6 days a week but they have the potential to operate on Sundays as well. I further inquired how often creosote is delivered to the facility. Mr. Newton stated typically one railcar of creosote is unloaded a day. We departed this

KOPPERS INDUSTRIES - SOMERVILLE

8/28/2014 Inv. # - 1192595

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is delivered to the facility. Mr. Newton stated typically one railcar of creosote is unloaded a day. We departed this location at approximately 1:30 p.m., and proceeded to the final survey spot.

Odor Survey Spot No. 4

At approximately 1:33 p.m., we arrived at a downwind location of Koppers, located on Hwy 36 between County Road 423 and County Road 437. No changes in the weather conditions were noted. We remained at this location for approximately 10 minutes and no odors were detected. We departed this location at approximately 1:43 p.m., and returned to the Waco Regional Office.

On September 2, 2014, I emailed Mr. Newton requesting records showing compliance with Special Condition 11 of Permit No. 705. Specifically, I requested to see the quantity of timbers treated, the creosote used in gallons, and the number of cylinder loads treated during the months of July and August 2014.

On September 2, 2014, I received the requested records via email demonstrating compliance with Permit No. 705 (see Attachment No. 3).

Exit Interview

Not Applicable

GENERAL FACILITY AND PROCESS INFORMATION

Process Description

New Source Review Permit No. 705 was authorized on April 15, 2005. Koppers uses creosote to treat wood railroad ties. Raw material is shipped from suppliers via rail cars. Material is then inspected and trimmed. It is incised to allow moisture to escape. Material is loaded onto tram carts that are then pushed into a pressure vessel. After the doors are sealed, the vessel is filled with hot creosote and heated to 190 degrees Fahrenheit. Vacuum pressure is used to remove excess water. Water removal takes about 12 to 14 hours. The creosote is then pumped out of the vessel, and then another vacuum of excess moisture is performed. After one hour, air pressure is applied to force air into the wood cells. The vessel is again filled with creosote to bleed out the air and to force creosote into the wood cells using pressure pumps at 190lbs/sq. in. A vacuum of air is performed again, which pushes out excess creosote. The tram carts with finished product are then pushed out of the vessel onto a platform to be inspected and prepared for shipment. Koppers Inc. uses a production balance sheet method of recordkeeping to verify emission rates are below required limits. A wet scrubber has been installed and put into operation to reduce odors.

BACKGROUND

Current Enforcement Actions

No violations were documented during the course of this investigation.

Agreed Orders, Court Orders, and Other Compliance Agreements

A file review indicated the regulated entity has not been issued any agreed orders, court orders or other compliance agreements within the past five years.

Prior Enforcement Issues

The regulated entity has not been issued any Notices of Enforcement (NOEs) or Notices of Violation (NOVs) within the past five years.

Complaints

A file review indicated that the Waco Regional Office has received several air complaints against this facility within the past five years.

ADDITIONAL INFORMATION

The applicable nuisance rule, Title 30 Texas Administrative Code (TAC) § 101.4, states that no person shall discharge from any source whatsoever one or more air contaminants or combinations thereof, in such concentration and of such duration as are or may tend to be injurious to or to adversely affect human health or welfare, animal life, vegetation, or property, or as to interfere with the normal use and enjoyment of animal life, vegetation, or property.

The TCEQ conducts complaint investigations in order to confirm adverse effects from nuisance conditions. If the investigation confirms that a nuisance condition exists, then a written, signed statement describing the impact

and nuisance condition must be submitted by the complainant. If formal enforcement proceedings result from a nuisance violation issued under these circumstances, then the complainant must formalize this statement in the form of a sworn, notarized affidavit, and must also be willing to testify in a related enforcement action regarding the contents of his/her statement. If a complainant were to allege health effects as a result of the nuisance, then the requirements are similar to those listed above, except that (1) if transitory health effects (such as nausea or eye irritation) are alleged, then the investigator must experience similar impacts and be able to confirm the origin as the alleged source; and (2) if significant health impacts are alleged, then documentation from a health care professional is necessary. The above nuisance violation requirements were established in a TCEQ Interoffice Memorandum dated October 7, 2008.

Conclusions and Recommendations

No off-property nuisance odor conditions were detected at the complainant's location during the investigation conducted on August 28, 2014.

Additional Issues

None

No Violations Associated to this Investigation

Signed

Sarah Elizabeth Momm
Environmental Investigator

Date

9/23/14

Signed

for Jason Neumann
Supervisor

Date

9/23/2014

Attachments: (in order of final report submittal)

___ Enforcement Action Request (EAR)

___ Letter to Facility (specify type) : _____

___ Investigation Report

___ Sample Analysis Results

___ Manifests

___ Notice of Registration

___ Maps, Plans, Sketches

___ Photographs

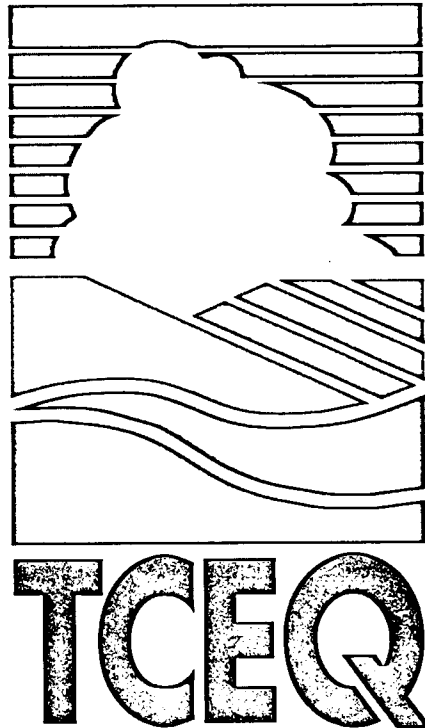
___ Correspondence from the facility

☒ Other (specify) :

1) Survey Map

2) Production Rates

3) Records



CCEDS Investigation No. 1192595
Fiscal Year 2015
Waco Regional Office

ATTACHMENT 1
Survey Map

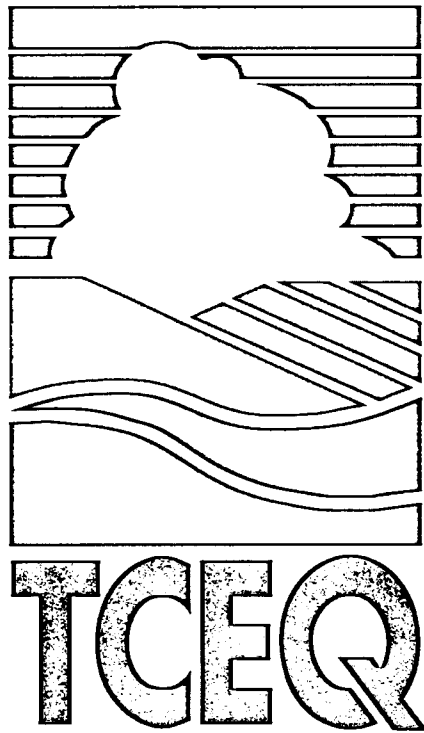
CN602411605, Koppers Inc.
RN101993764, Koppers Industries
Burleson County

INVESTIGATOR: ELIZABETH MOMAN
INVESTIGATION DATE: AUGUST 28, 2014

Survey map for Investigation No. 1192595



WINDS FROM THE EAST/SOUTHEAST



CCEDS Investigation No. 1192595
Fiscal Year 2015
Waco Regional Office

ATTACHMENT 2
Production Rates

CN602411605, Koppers Inc.
RN101993764, Koppers Industries
Burleson County

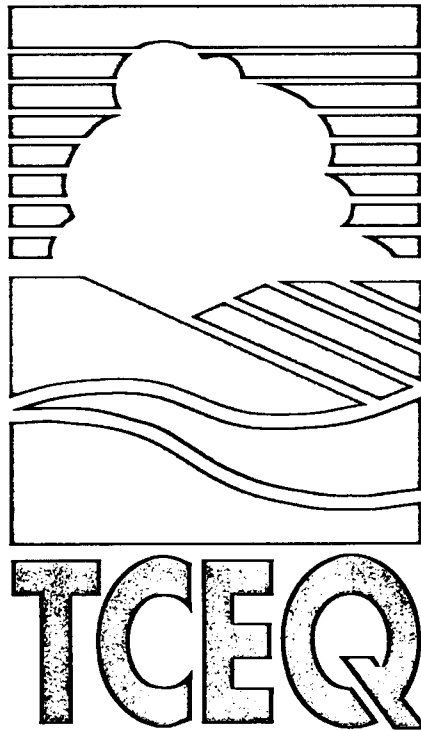
INVESTIGATOR: ELIZABETH MOMAN
INVESTIGATION DATE: AUGUST 28, 2014

| MONTH | NUMBER CHARGES | CUBIC FEET | GALLONS CREOSOTE |
|--------|-------------------|---------------|---------------------|
| Jan-12 | 137 | 511,257 | 342,930 |
| Feb-12 | 130 | 485,502 | 324,200 |
| Mar-12 | 139 | 522,713 | 353,900 |
| Apr-12 | 139 | 518,922 | 351,100 |
| May-12 | 142 | 545,513 | 364,761 |
| Jun-12 | 143 | 566,582 | 377,000 |
| Jul-12 | 128 | 503,621 | 338,850 |
| Aug-12 | 170 | 666,819 | 460,340 |
| Sep-12 | 145 | 564,931 | 389,410 |
| Oct-12 | 173 | 681,690 | 484,210 |
| Nov-12 | 128 | 499,425 | 361,180 |
| Dec-12 | 130 | 520,183 | 355,200 |
| Jan-13 | 148 | 592,296 | 406,600 |
| Feb-13 | 142 | 568,554 | 391,470 |
| Mar-13 | 143 | 568,026 | 389,460 |
| Apr-13 | 149 | 600,193 | 408,760 |
| May-13 | 143 | 564,712 | 380,330 |
| Jun-13 | 158 | 631,434 | 426,190 |
| Jul-13 | 138 | 555,133 | 374,310 |
| Aug-13 | 164 | 655,334 | 438,110 |
| Sep-13 | 157 | 550,222 | 374,890 |
| Oct-13 | 172 | 689,124 | 465,330 |
| Nov-13 | 132 | 524,447 | 358,490 |
| Dec-13 | 127 | 508,599 | 337,780 |
| Jan-14 | 141 | 562,075 | 373,500 |
| Feb-14 | 126 | 506,569 | 336,570 |
| Mar-14 | 138 | 561,684 | 371,920 |
| Apr-14 | 140 | 569,359 | 375,550 |
| May-14 | 123 | 499,138 | 331,890 |
| Jun-14 | 144 | 586,035 | 388,400 |
| Jul-14 | 144 | 590,725 | 394,680 |
| Aug-14 | 139 | 565,938 | 380,220 |
| Sep-14 | | 543,825 | |
| Oct-14 | | 595,618 | |
| Nov-14 | | 466,135 | |
| Dec-14 | | 517,928 | |

AVAILABLE

Total Rolling year cuft t limit is 7,020,000 Cubic Feet

| | |
|-----------|---------|
| 6,668,197 | 351,803 |
| 6,751,249 | 268,751 |
| 6,796,562 | 223,438 |
| 6,877,833 | 142,167 |
| 6,897,032 | 122,968 |
| 6,961,884 | 58,116 |
| 7,013,396 | 6,604 |
| 7,001,911 | 18,089 |
| 6,987,202 | 32,798 |
| 6,994,636 | 25,364 |
| 7,019,658 | 342 |
| 7,008,074 | 11,926 |
| 6,977,853 | 42,147 |
| 6,915,868 | 104,132 |
| 6,909,526 | 110,474 |
| 6,878,692 | 141,308 |
| 6,813,118 | 206,882 |
| 6,767,719 | 252,281 |
| 6,803,311 | 216,689 |
| 6,713,915 | 306,085 |
| 6,707,518 | 312,482 |
| 6,614,012 | 405,988 |
| 6,555,700 | 464,300 |
| 6,565,029 | 454,971 |



CCEDS Investigation No. 1192595
Fiscal Year 2015
Waco Regional Office

ATTACHMENT 3
Records

CN602411605, Koppers Inc.
RN101993764, Koppers Industries
Burleson County

INVESTIGATOR: ELIZABETH MOMAN
INVESTIGATION DATE: AUGUST 28, 2014

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Ceased Dripage Log TO BE USED WITH SOM-ADMIN-004

KOPPERS

*Dripage must be ceased and document before any treated train is pushed off of the drip pad.

Cylinder # _____

| Charge Number | Cylinder Number | Train Number | Key Removed | | Key Returned | | Fan Function | Dripage Ceased | | Inspector Initial and Comments |
|---------------|-----------------|--------------|-------------|---------|--------------|---------|--------------|----------------|---------|--------------------------------|
| | | | Date | Time | Date | Time | | Date | Time | |
| 1084-B | 1 | 11686 | 8-25-14 | 7:10 A | 8-25-14 | 8:10 A | Low | 8-25-14 | 9:15 A | T.G. J.R. |
| 1085-B | 4 | 11685 | 8-25-14 | 8:40 A | 8-25 | 10:20 A | Low | 8-25-14 | 11:20 P | T.G. J.R. |
| 1086-B | 3 | 11688 | 8-25-14 | 10:10 P | 8-25-14 | 10:35 P | Low | 8-26-14 | 8:10 A | T.G. J.R. |
| 1087 | 1 | 11687 | 8-26-14 | 12:40 P | 8-26-14 | 1:10 A | Low | 8-26-14 | 8:30 A | T.G. J.R. |
| 1088 | 4 | 11689 | 8-26-14 | 6:10 A | 8-26-14 | 6:50 A | Low | 8-26-14 | 8:20 A | T.G. J.R. |
| 1089-B | 3 | 11690 | 8-26-14 | 1:10 P | 8-26-14 | 1:55 P | Low | 8-26-14 | 1:30 P | Ross JA |
| 1090-B | 1 | 11691 | 8-26-14 | 3:10 P | 8-26-14 | 4:15 P | Low | 8-26-14 | 9:00 A | Ross JA |
| 1091 | 4 | 11692 | 8-27-14 | 1:40 A | 8-27-14 | 2:35 A | Low | 8-26-14 | 5:25 A | T.G. J.R. |
| 1092 | 3 | 11693 | 8-27-14 | 5:10 A | 8-27-14 | 6:20 A | High | 8-26-14 | 11:00 A | T.G. J.R. |
| 1093-B | 1 | 11694 | 8-27-14 | 6:40 A | 8-27-14 | 9:10 A | High | 8-26-14 | 11:40 P | T.G. J.R. |
| 1094-B | 4 | 11695 | 8-27-14 | 7:40 P | 8-27-14 | 5:35 P | High | 8-27-14 | 7:35 P | RH JA |
| 1095-B | 3 | 11696 | 8-27-14 | 8:40 P | 8-27-14 | 9:00 P | High | 8-27-14 | 9:30 P | RH JA |
| 1096-B | 1 | 11697 | 8-27-14 | 11:40 P | 8-28-14 | 12:05 | High | 8-28-14 | 8:00 AM | T.G. J.R. |
| 1097-B | 4 | 11698 | 8-28-14 | 12:40 P | 8-28-14 | 1:20 PM | High | 8-28-14 | 1:25 P | T.G. J.R. |
| 1098-B | 3 | 11699 | 8-28-14 | 1:40 PM | 8-28-14 | 2:05 P | High | | | |
| 1099-B | 4 | 11700 | 8-28-14 | 3:10 PM | 8-28-14 | | | | | |
| 1100 | 4 | 11701 | | | | | | | | |
| 1101 | | | | | | | | | | |
| 1102 | | | | | | | | | | |
| 1103 | | | | | | | | | | |
| 1104 | | | | | | | | | | |
| 1105 | | | | | | | | | | |
| 1106 | | | | | | | | | | |
| 1107 | | | | | | | | | | |
| 1108 | | | | | | | | | | |
| 1109 | | | | | | | | | | |

Ret

RECEIVED
SEP - 2 2014
ICEQ
WACO - REGION 9

| | | |
|--------------------------|--------------------------|-------------|
| PROCEDURE: SOM-FORM-026 | Cease Dripage Log | Page 1 of 1 |
| EFFECTIVE DATE: 12/11/08 | WRITTEN BY: David Lauter | |
| REVISION #: 02-12/10/08 | APPROVED BY: Dave Shaw | |

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Ceased Dripage Log TO BE USED WITH SOM-ADMIN-004



*Dripage must be ceased and document before any treated train is pushed off of the drip pad.

Cylinder # _____

| Charge Number | Cylinder Number | Train Number | Key Removed | | Key Returned | | Fan Function | Dripage Ceased | | Inspector Initial and Comments |
|---------------|-----------------|--------------|-------------|---------|--------------|---------|--------------|----------------|---------|--------------------------------|
| | | | Date | Time | Date | Time | | Date | Time | |
| 1058B | 4 | 11659 | 8-18-14 | 7:40 P | 8-18-14 | 8:40 P | Low | 8-19-14 | 6:30 A | T.G. J.R. |
| 1059B | 3 | 11660 | 8-18-14 | 11:40 P | 8-19-14 | 12:15 A | High | 8-19-14 | 9:40 A | T.G. J.R. |
| 1060B | 1 | 11661 | 8-19-14 | 4:40 A | 8-19-14 | 5:55 A | High | 8-19-14 | 7:10 A | T.G. J.R. |
| 1061-B | 4 | 11662 | 8-19-14 | 10:40 A | 8-19-14 | 11:15 | High | 8-19-14 | 1:35 P | T.G. J.R. |
| 1062B | 3 | 11663 | 8-19-14 | 2:10 P | 8-19-14 | 2:30 P | High | 8-20-14 | 2:20 A | T.G. J.R. |
| 1063B | 1 | 11664 | 8-19-14 | 7:40 P | 8-19-14 | 8:00 P | Low | 8-20-14 | 7:30 A | T.G. J.R. |
| 1064B | 4 | 11665 | 8-20-14 | 12:40 A | 8-20-14 | 1:05 A | Low | 8-20-14 | 9:00 P | RH JA |
| 1065B | 3 | 11666 | 8-20-14 | 5:10 A | 8-20-14 | | Low | 8-20-14 | 7:15 P | T.G. J.R. |
| 1066-B | 1 | 11667 | 8-20-14 | 10:10 A | 8-20-14 | 10:50 A | Low | 8-20-14 | 1:30 P | T.G. J.R. |
| 1067B | 4 | 11668 | 8-20-14 | 3:40 P | 8-20-14 | 4:50 P | Low | 8-20-14 | 5:20 P | RH JA |
| 1068B | 3 | 11669 | 8-20-14 | 8:40 P | 8-20-14 | 9:30 P | Low | 8-20-14 | 10:30 P | RH JA |
| 1069B | 1 | 11670 | 8-21-14 | 12:40 A | 8-21-14 | 1:25 A | | 8-21-14 | 7:45 AM | T.G. J.R. |
| 1070-B | 4 | 11671 | 8-21-14 | 8:15 A | 8-21-14 | 8:35 A | Low | 8-21-14 | 7:00 P | RH JA |
| 1071-B | 3 | 11672 | 8-21-14 | 12:40 P | 8-21-14 | 1:30 A | Low | 8-21-14 | 7:10 A | T.G. J.R. |
| 1072B | 1 | 11673 | 8-21-14 | 4:40 P | 8-21-14 | 6:45 P | Low | 8-21-14 | 7:00 P | RH JA |
| 1073-B | 4 | 11674 | 8-21-14 | 10:40 P | 8-21-14 | 11:30 P | High | 8-22-14 | 6:00 A | T.G. J.R. |
| 1074 | 3 | 11675 | 8-22-14 | 2:10 A | 8-22-14 | 3:15 A | Low | 8-22-14 | 6:25 A | T.G. J.R. |
| 1075 | 1 | 11676 | 8-22-14 | 7:50 A | 8-22-14 | 9:45 A | Low | 8-22-14 | 2:50 P | RH JA |
| 1076B | 4 | 11677 | 8-22-14 | 2:40 P | 8-22-14 | 4:00 P | Low | 8-22-14 | 8:30 A | RH JA |
| 1077B | 3 | 11678 | 8-22-14 | 7:40 P | 8-22-14 | 8:50 P | Low | 8-23-14 | 7:15 AM | CR SP |
| 1078B | 1 | 11679 | 8-23-14 | 2:10 A | 8-23-14 | 3:40 A | Low | 8-23-14 | 7:10 AM | CR SP |
| 1079-B | 4 | 11680 | 8-23-14 | 6:40 A | 8-23-14 | 7:35 A | Low | 8-23-14 | 11:30 A | T.G. J.R. |
| 1080B | 3 | 11681 | 8-23-14 | 11:10 A | 8-23-14 | 11:35 A | Low | 8-23-14 | 2:30 A | T.G. J.R. |
| 1081B | 1 | 11682 | 8-23-14 | 9:40 P | 8-24-14 | 7:00 P | Low | 8-25-14 | 7:20 A | T.G. J.R. |
| 1082B | 4 | 11683 | 8-23-14 | 6:10 P | 8-24-14 | 7:35 A | Low | 8-25-14 | 10:40 A | T.G. J.R. |
| 1083-B | 3 | 11684 | 8-25-14 | 5:10 A | 8-25-14 | 7:00 A | Low | 8-25-14 | 8:45 P | RH JA |

Retreat

| | | |
|--------------------------|--------------------------|-------------|
| PROCEDURE: SOM-FORM-026 | Cease Dripage Log | Page 1 of 1 |
| EFFECTIVE DATE: 12/11/08 | WRITTEN BY: David Lauter | |
| REVISION #: 02-12/10/08 | APPROVED BY: Dave Shaw | |

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Ceased Drillage Log TO BE USED WITH SOM-ADMIN-004



*Drillage must be ceased and document before any treated train is pushed off of the drip pad.

Cylinder # _____

| Charge Number | Cylinder Number | Train Number | Key Removed | | Key Returned | | Fan Function | Drillage Ceased | | Inspector Initial and Comments |
|---------------|-----------------|--------------|-------------|---------|--------------|---------|--------------|-----------------|--------|--------------------------------|
| | | | Date | Time | Date | Time | | Date | Time | |
| 954 B | 2 | 11506 | 7-29-14 | 1:40P | 7-29-14 | 2:25P | Low | 7-29-14 | 4:00PM | Ross TM |
| 955 B | 1 | 11508 | 7-29-14 | 6:25P | 7-29-14 | 7:10pm | Low | 7-29-14 | 7:30PM | Ross TM |
| 956 B | 4 | 11509 | 7-29-14 | 11:10P | 7-29-14 | 11:50pm | Low | 7-30-14 | 4:00A | D.C. J.R. |
| 957 | 3 | 11510 | 7-30-14 | 3:10A | 7-30-14 | 4:13SA | Low | 7-30-14 | 1:30PM | Cliff J.R. |
| 958 B | 2 | 11511 | 7-30-14 | 5:10P | 7-30-14 | 6:00P | Low | 7-30-14 | 6:10PM | P. TM |
| 959 B | 1 | 11512 | 7-30-14 | 9:40P | 7-30-14 | 10:40P | Low | 7-30-14 | 6:20A | DC J.R. |
| 960 B | 4 | 11513 | 7-30-14 | 4:10P | 7-30-14 | 4:53PM | Low | 7-30-14 | 5:10PM | D.C. TM |
| 961 B | 3 | 11514 | 7-30-14 | 11:40P | 7-31-14 | 12:20A | Low | 7-31-14 | 7:45A | Cliff J.R. |
| 962-B | 4 | 11507 | 7-31-14 | 6:10P | 7-31-14 | 8:55A | Low | 7-31-14 | 9:30A | Cliff J.R. |
| 963-B | 2 | 11515 | 7-31-14 | 10:10A | 7-31-14 | 11:20A | Low | 7-31-14 | 12:45P | J.R. J.R. |
| 964-B | 1 | 11516 | 7-31-14 | 11:0P | 7-31-14 | 1:40P | Low | 7-31-14 | 1:50P | J.R. J.R. |
| 965 | 3 | 11517 | 7-31-14 | 1:40P | 7-31-14 | 2:30P | Low | 7-31-14 | 8:00P | Ross TM |
| 966 | 4 | 11518 | 7-31-14 | 10:40P | 7-31-14 | 11:32P | Low | 8-2-14 | 9:35A | Cliff J.R. |
| 967 | 2 | 11519 | 8-1-14 | 1:10A | 8-1-14 | 3:25A | Low | 8-1-14 | 6:45A | DC J.R. |
| 968 | 1 | 11520 | 8-1-14 | 6:130A | 8-1-14 | 6:45 | Low | 8-1-14 | 8:00A | D.C. J.R. |
| 969 | 3 | 11521 | 8-1-14 | 10:40A | 8-1-14 | 11:25A | Low | 8-2-14 | 6:20A | Cliff J.R. |
| 970 B | 4 | 11522 | 8-1-14 | 5:40P | 8-1-14 | 6:05P | Low | 8-1-14 | 6:50P | JA CS |
| 971 B | 2 | 11523 | 8-1-14 | 7:10P | 8-1-14 | 8:15P | Low | 8-1-14 | 8:30P | JA CS |
| 972 B | 3 | 11524 | 8-2-14 | 12:10A | 8-2-14 | 12:55A | Low | 8-2-14 | 6:20A | Cliff J.R. |
| 973 -2 | -2 Guard | 11530 | 8-3-14 | 6:40P | 8-3-14 | 7:10P | Low | 8-4-14 | 6:15A | TK TM |
| 974 -B | 1 | 11526 | 8-2-14 | 11:40PM | 8-2-14 | 2:10P | Low | 8-2-14 | 7:20A | T.G. J.R. |
| 975 -B | 4 | 11525 | 8-2-14 | 11:40P | 8-2-14 | 12:05P | Low | 8-2-14 | 12:30P | T.G. J.R. |
| 976 B | 3 | 11527 | 8-2-14 | 2:40P | 8-2-14 | 4:10pm | Low | 8-4-14 | 8:45A | T.G. J.R. |
| 977 | 4 | 11528 | 8-3-14 | 3:10A | 8-3-14 | 5:25AM | Low | 8-3-14 | 6:40AM | Cliff SP |
| 978 | 1 | 11529 | 8-3-14 | 5:40AM | 8-3-14 | 6:35AM | Low | 8-4-14 | 7:10AM | T.G. J.R. |
| 979-B | 3 | 11531 | 8-3-14 | 8:40AM | 8-3-14 | 9:35AM | Low | 8-4-14 | 9:20A | T.G. J.R. |

| | | |
|--------------------------|--------------------------|-------------|
| PROCEDURE: SOM-FORM-026 | Cease Drillage Log | Page 1 of 1 |
| EFFECTIVE DATE: 12/11/08 | WRITTEN BY: David Lauter | |
| REVISION #: 02-12/10/08 | APPROVED BY: Dave Shaw | |

Treating Log TO BE USED WITH SOM-SOP-TREAT-001

| | Shift Charged | Charge # | Train # | Species and Size | Date Charge In | Time Charge In | Date Charge Out | Time Charge Out | Odor Control Time On |
|-----------|---------------|----------|---------|------------------|----------------|----------------|-----------------|-----------------|----------------------|
| 4 | 4-12 | 962-B | 11507 | DAK #58 | 7-30-14 | 7:50 P | 7-31-14 | 8:40 A | OK |
| 2 | 4-12 | 963-B | 11515 | DAK #58 | 7-30-14 | 10:30 P | 7-31-14 | 10:40 A | OK |
| 1 | 4-12 | 964-B | 11516 | MIX SWT | 7-30-14 | 10:40 P | 7-31-14 | 1:10 P | OK |
| 3 | 12-8 | 965 | 11517 | Gum #59 | 7-31-14 | 12:30 A | 7-31-14 | 2:10 P | OK |
| 4 | 8-4 | 966 | 11518 | Gum #59 | 7-31-14 | 9:45 P | 7-31-14 | 10:40 P | OK |
| B2 | 8-4 | 967 | 11519 | OK #59 | 7-31-14 | 1:45 P | 8-1-14 | 2:40 A | OK |
| B1 | 8-4 | 968 | 11520 | OK #59 | 7-31-14 | 4:45 | 8-1-14 | 5:40 A | OK |
| 3 | 8-4 | 969 | 11521 | OK #59 | 7-31-14 | 8:50 P | 8-1-14 | 11:10 A | OK |
| 1 | 4-12 | 970-B | 11522 | OK #59 | 7-31-14 | 11:30 P | 8-1-14 | 5:10 P | OK |
| 2 | 12-8 | 971-B | 11523 | OK #59 | 8-1-14 | 2:25 A | 8-1-14 | 7:40 P | OK |
| 3 | 12-8 | 972-B | 11524 | OK #59 | 8-1-14 | 6:55 A | 8-2-14 | 12:40 X | OK |
| GREEN 2 | 4-12 | 973-B | 11530 | DAK #59 | 8-1-14 | 8:15 P | 8-2-14 | 6:11 P | OK |
| 4 | 4-12 | 975-B | 11525 | DAK #59 | 8-1-14 | 11:20 P | 8-2-14 | 12:10 P | OK |
| 1 | 12-8 | 974 | 11526 | OK #59 | 8-1-14 | 7:30 P | 8-2-14 | 1:40 P | OK |
| 3 | 12-8 | 976-B | 11527 | OK #59 | 8-2-14 | 12:55 A | 8-2-14 | 4:10 P | OK |
| B4 | 8-4 | 977 | 11528 | OK #59 | 8-2-14 | 2:45 P | 8-3-14 | 3:40 A | OK |
| B1 | 8-4 | 978 | 11529 | OK #59 | 8-2-14 | 5:15 P | 8-3-14 | 6:10 A | OK |
| 3 | 4-12 | 979-B | 11531 | DAK #59 | 8-2-14 | 7:50 P | 8-3-14 | 8:40 A | OK |
| GREEN 4 | 12-8 | 980-B | 11535 | OK #59 | 8-3-14 | 5:25 A | 8-3-14 | 6:40 P | OK |
| 1 | 12-8 | 991 | 11532 | OK #59 | 8-3-14 | 6:35 A | 8-3-14 | 6:10 P | OK |
| B3 | 8-4 | 982 | 11533 | Gum #59 | 8-3-14 | 11:45 A | 8-3-14 | 12:40 A | OK |
| 2 | 4-12 | 983-B | 11534 | DAK #59 | 8-3-14 | 9:10 P | 8-4-14 | 10:10 X | OK |
| 1 | 4-12 | 984-B | 11537 | DAK #58 | 8-3-14 | 10:45 P | 8-4-14 | 11:40 A | OK |
| 3 | 12-8 | 985-B | 11536 | OK #59 | 8-4-14 | 2:15 A | 8-4-14 | 4:10 P | OK |
| GREEN B 2 | 8-4 | 986 | 11538-B | OK #59 | 8-4-14 | 7:50 P | 8-4-14 | 7:10 A | OK |
| B1 | 8-4 | 987 | 11538 | OK #59 | 8-4-14 | 4:45 P | 8-5-14 | 5:10 A | OK |
| 3 | 4-12 | 988-B | 11539 | OK #59 | 8-4-14 | 9:20 P | 8-5-14 | 10:10 X | OK |
| 1 | 12-8 | 989-B | 11540 | OK #59 | 8-4-14 | 10:45 | 8-5-14 | 11:10 A | OK |
| B4 | 8-4 | 990 | 11542 | OK #59 | 8-5-14 | 12:45 P | 8-5-14 | 1:40 A | OK |
| B3 | 8-4 | 991 | 11543 | OK #59 | 8-5-14 | 3:15 P | 8-6-14 | 1:10 A | OK |
| 1 | 8-4 | 992-B | 11544 | OK #59 | 8-5-14 | 11:35 P | 8-6-14 | 2:40 P | OK |
| 4 | 8-4 | 993-B | 11545 | OK #59 | 8-6-14 | 2:00 A | 8-6-14 | 4:10 P | OK |
| 3 | 8-4 | 994-B | 11546 | OK #59 | 8-6-14 | 5:10 A | 8-6-14 | 6:40 X | OK |
| B2 | 8-4 | 995 | 11547 | OK #59 | 8-6-14 | 10:50 A | 8-6-14 | 11:40 P | OK |
| B1 | 8-4 | 996 | 11548 | OK #59 | 8-6-14 | 4:45 P | 8-7-14 | 5:40 A | OK |
| 4 | 4-12 | 997-B | 11549 | OK #58 | 8-6-14 | 8:20 P | 8-7-14 | 9:10 X | OK |
| 4 | 4-12 | 998-B | 11550 | OK #58 | 8-6-14 | 10:09 P | 8-7-14 | 1:30 P | OK |

| Shift Charged | Charge # | Train # | Species and Size | Date Charge In | Time Charge In | Date Charge Out | Time Charge Out | Odor Control Time On |
|---------------|----------|---------|------------------|----------------|----------------|-----------------|-----------------|----------------------|
| 8-4 | 1073 B | 11674 | Gum #59 | 8-21-14 | 8:45A | 8-21-14 | 11:10P | ON |
| 8-4 | 1074 | 11675 | Dak #58 | 8-21-14 | 1:45P | 8-22-14 | 2:40A | ON |
| 4-12 | 1075 | 11676 | Dak #58 | 8-21-14 | 6:55P | 8-22-14 | 8:10A | ON |
| 4-12 | 1076-B | 11677 | Gum #58 | 8-21-14 | 11:36P | 8-22-14 | 3:10P | ON |
| 12-8 | 1077 B | 11678 | Gum #58 | 8-22-14 | 3:15A | 8-22-14 | 8:10P | ON |
| 8-4 | 1078 B | 11679 | Gum #58 | 8-22-14 | 9:45A | 8-23-14 | 2:40A | ON |
| 4-12 | 1079-B | 11680 | Gum #58 | 8-22-14 | 6:00 | 8-23-14 | 7:10A | ON |
| 4-12 | 1080-B | 11681 | Gum #58 | 8-22-14 | 10:40A | 8-23-14 | 11:40A | ON |
| 12-4 | 1081 B | 11682 | Gum #58 | 8-23-14 | 3:10A | 8-23-14 | 6:10P | ON |
| 12-4 | 1082 B | 11683 | Gum #58 | 8-23-14 | 7:38A | 8-23-14 | 9:10P | ON |
| 12-4 | 1083 B | 11684 | Gum #58 | 8-23-14 | 12:10P | 8-24-14 | 5:50A | ON |
| 4-12 | 1084-B | 11686 | Gum #58 | 8-24-14 | 6:45P | 8-25-14 | 7:40A | ON |
| 4-12 | 1085-B | 11685 | Gum #58 | 8-24-14 | 8:20P | 8-25-14 | 9:10A | ON |
| 12-8 | 1086 B | 11688 | Gum #58 | 8-25-14 | 7:00A | 8-26-14 | 10:10P | ON |
| 8-4 | 1087 | 11687 | Gum #58 | 8-26-14 | 12:15P | 8-26-14 | 4:40A | ON |
| 8-4 | 1088 | 11689 | Gum #58 | 8-25-14 | 5:45P | 8-26-14 | 6:10A | ON |
| 4-12 | 1089-B | 11690 | Gum #58 | 8-25-14 | 10:35P | 8-26-14 | 1:10P | ON |
| 12-8 | 1090 B | 11691 | Gum #58 | 8-26-14 | 1:10A | 8-26-14 | 3:40P | ON |
| 8-4 | 1091 | 11692 | Gum #58 | 8-26-14 | 120P | 8-27-14 | 2:10P | ON |
| 8-4 | 1092 | 11693 | Gum #58 | 8-26-14 | 4:45P | 8-27-14 | 5:10A | ON |
| 4-12 | 1093 B | 11694 | Gum #58 | 8-26-14 | 4:15P | 8-27-14 | 7:10A | ON |
| 12-8A | 1094 B | 11695 | Gum #58 | 8-27-14 | 2:35A | 8-27-14 | 5:10P | ON |
| 12-8A | 1095 B | 11696 | Gum #58 | 8-27-14 | 6:35A | 8-27-14 | 8:40P | ON |
| 8-4 | 1096 | 11697 | Gum #58 | 8-27-14 | 10:55A | 8-27-14 | 11:40P | ON |
| 4-12 | 1097-B | 11698 | Dak #58 | 8-27-14 | 6:43P | 8-28-14 | 12:10P | ON |
| 4-12 | 1098-B | 11699 | Gum #58 | 8-27-14 | 9:00P | 8-28-14 | 1:40P | ON |
| 12-8 | 1099 B | 11700 | Gum #58 | 8-28-14 | 12:05A | 8-28-14 | | |
| 8-4 | 1100 | 11701 | Gum #58 | 8-28-14 | | 8-29-14 | | |