

## **Statement of Basis**

**Permit to Construct No. P-2007.0055  
Project ID 61721**

**Sinclair Transportation Company, Boise Tank Farm  
Boise, Idaho**

**Facility ID 001-00112**

**Final**

**August 17, 2016  
Tom Burnham   
Permit Writer**

The purpose of this Statement of Basis is to satisfy the requirements of IDAPA 58.01.01. et seq, Rules for the Control of Air Pollution in Idaho, for issuing air permits.

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## ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

AAC	acceptable ambient concentrations
AACC	acceptable ambient concentrations for carcinogens
ASTM	American Society for Testing and Materials
Btu	British thermal units
CAA	Clean Air Act
CFR	Code of Federal Regulations
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	CO <sub>2</sub> equivalent emissions
DEQ	Department of Environmental Quality
EL	screening emission levels
EPA	U.S. Environmental Protection Agency
GHG	greenhouse gases
HAP	hazardous air pollutants
hr/yr	hours per consecutive 12 calendar month period
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
lb/hr	pounds per hour
lb/qtr	pound per quarter
m	meters
MACT	Maximum Achievable Control Technology
MMBtu	million British thermal units
MMscf	million standard cubic feet
NAAQS	National Ambient Air Quality Standard
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO <sub>2</sub>	nitrogen dioxide
NO <sub>x</sub>	nitrogen oxides
NSPS	New Source Performance Standards
O&M	operation and maintenance
PC	permit condition
PM	particulate matter
PM <sub>2.5</sub>	particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers
PM <sub>10</sub>	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
ppm	parts per million
PSD	Prevention of Significant Deterioration
PTC	permit to construct
PTC/T2	permit to construct and Tier II operating permit
PTE	potential to emit
<i>Rules</i>	<i>Rules for the Control of Air Pollution in Idaho</i>
scf	standard cubic feet
SO <sub>2</sub>	sulfur dioxide
SO <sub>x</sub>	sulfur oxides
T/day	tons per calendar day
T/hr	tons per hour
T/yr	tons per consecutive 12 calendar month period
T2	Tier II operating permit
TAP	toxic air pollutants
U.S.C.	United States Code
VOC	volatile organic compounds
yd <sup>3</sup>	cubic yards
µg/m <sup>3</sup>	micrograms per cubic meter

## **FACILITY INFORMATION**

### ***Description***

Sinclair Transportation Company, Boise Tank Farm distributes petroleum products received through the Chevron supply pipeline, which originates in Salt Lake City, Utah. Petroleum products consisting of various grades of gasoline and distillate fuel oil are temporarily stored in tanks prior to transfer back into the pipeline for transportation to additional tank farms (gasoline and distillate fuel oil).

The petroleum products are stored in any of eight existing storage tanks. Gasoline is allowed to be stored in five of these tanks, and distillate fuel oil can be stored in any of the eight existing tanks. A transmix tank is used to store "slop oil," making a total of nine tanks at the facility.

### ***Permitting History***

The following information was derived from a review of the permit files available to DEQ. Permit status is noted as active and in effect (A) or superseded (S).

July 29, 2015	P-2007.0055, revision of an existing PTC for a facility name change (Permit status A, but will become S upon issuance of this permit)
July 22, 2014	P-2007.0055, Installation of a new thermal oxidizer controlling vapors from the SVE system (S)
June 19, 2007	P-2007.0055, Removal of the diesel loading rack and prover tank, Permit status (S)
October 8, 2004	Tier II Operating Permit and PTC No. 001-00112 (S)
November 18, 2002	Tier II Operating Permit No. T2-010017 (S)
July 7, 1999	PTC No. 001-00112 (S)
September 21, 1998	PTC No. 001-00112 (S)
August 23, 1996	Tier II Operating Permit No. 001-00112 (S)

### ***Application Scope***

This PTC is a revision of an existing PTC to allow different modes of operation of the Thermal/Catalytic Oxidizer on SVE system.

### ***Application Chronology***

May 20, 2016	DEQ received an application and an application fee.
May 27, 2016	DEQ determined application was incomplete
June 15, 2016	Supplemental information was provided by the applicant
June 28, 2016	DEQ determined that the application was complete.
July 19, 2016	DEQ made available the draft permit and statement of basis for peer and regional office review.
July 25, 2016	DEQ made available the draft permit and statement of basis for applicant review.
August 9, 2016	DEQ received the permit processing fee.
August 17, 2016	DEQ issued the final permit and statement of basis.

# TECHNICAL ANALYSIS

## *Emissions Units and Control Equipment*

Table 1 EMISSIONS UNIT AND CONTROL EQUIPMENT INFORMATION

Sources	Control Equipment
<u>Tank Nos. 401, 404, 411, and 421:</u> Type: Floating roof Size: 840,000 gallons Product: Gasoline or Distillate fuel oil Annual Throughput: 58,254,000 gallons/year	None
<u>Tank No. 431:</u> Type: Floating roof Size: 3,336,000 gallons Product: Gasoline or Distillate fuel oil Annual Throughput: 58,254,000 gallons/year	None
<u>Tank Nos. 402, 405, and 406:</u> Type: Fixed roof Size: 840,000 gallons Product: Distillate fuel oil Annual Throughput: 168,630,000 gallons/year	None
<u>Tank No. 400 (Transmix tank):</u> Type: Fixed roof Size: 105,000 gallons Product: Gasoline, Distillate fuel oil, and/or "slop oil" Annual Throughput: 38,080 gallons/year	None
<u>Soil Vapor Extraction System</u>	<u>Thermal/Catalytic Oxidizer:</u> Manufacturer: Intellishare Model: 1000 Thermal Mode 99% destruction efficiency Catalytic Mode 99% destruction efficiency

### *Emissions Inventories*

Emissions will not change as a result of the issuance of this permit. The emission inventory below was taken from the previous permit and statement of basis, P-2007.0055 issued June 19, 2007. Table 2 presents the Potential to Emit for all emissions units at the facility as determined by DEQ staff. All emission rates and throughput limits in the existing PTC are carried over with no change in emissions rates as a result of this permitting action. With the upgrade of the Thermal/Catalytic Oxidizer the emission rates for benzene, HAPs, and VOCs are under the current permitted limits. The actual emissions for the Thermal/Catalytic Oxidizer are included in Appendix A included as a demonstration of the typical benzene concentration in the SVE stack.

**Table 2 POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS AND HAPS**

Source	VOC T/yr <sup>(a)</sup>	HAPs T/yr <sup>(a)</sup>
Tank 401	12.96	0.38
Tank 404	12.96	0.38
Tank 411	12.96	0.38
Tank 421	12.96	0.38
Tank 431	13.88	0.40
Tank 402	0.47	0.015
Tank 405	0.47	0.015
Tank 406	0.47	0.015
Tank 400 (Transmix)	0.28	0.008
Fugitive	0.92	0.15
Soil vapor extraction system	25.9	9.37
<b>Totals</b>	<b>94.2</b>	<b>11.5</b>

a) Controlled average emission rate in tons per year is an annual average, based on the proposed annual operating schedule and annual limits.

**Ambient Air Quality Impact Analyses**

There are no emissions increase proposed in this revision; therefore, modeling is not required.

**REGULATORY ANALYSIS**

**Attainment Designation (40 CFR 81.313)**

The facility is located in Ada County, which is designated as attainment or unclassifiable for PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>2</sub>, CO, and Ozone. Refer to 40 CFR 81.313 for additional information.

**Permit to Construct (IDAPA 58.01.01.201)**

IDAPA 58.01.01.201 ..... Permit to Construct Required

The permittee has requested that a PTC be issued to the facility for the modified emissions source. Therefore, a permit to construct is required to be issued in accordance with IDAPA 58.01.01.220. This permitting action was processed in accordance with the procedures of IDAPA 58.01.01.200-228.

**Tier II Operating Permit (IDAPA 58.01.01.401)**

IDAPA 58.01.01.401 ..... Tier II Operating Permit

The application was submitted for a permit to construct (refer to the Permit to Construct section), and an optional Tier II operating permit has not been requested. Therefore, the procedures of IDAPA 58.01.01.400-410 were not applicable to this permitting action.

**Title V Classification (IDAPA 58.01.01.300, 40 CFR Part 70)**

IDAPA 58.01.01.301 ..... Requirement to Obtain Tier I Operating Permit

Post project facility-wide emissions from this facility do not have a potential to emit greater than 100 tons per year for VOC and HAP or 10 tons per year for any one HAP or 25 tons per year for all HAPs combined as demonstrated previously in the Emissions Inventories Section of this analysis. Therefore, the facility is not a Tier I source in accordance with IDAPA 58.01.01.006 and the requirements of IDAPA 58.01.01.301 do not apply.

**PSD Classification (40 CFR 52.21)**

40 CFR 52.21..... Prevention of Significant Deterioration of Air Quality

The facility is not a major stationary source as defined in 40 CFR 52.21(b)(1), nor is it undergoing any physical change at a stationary source not otherwise qualifying under paragraph 40 CFR 52.21(b)(1) as a major stationary source, that would constitute a major stationary source by itself as defined in 40 CFR 52. Therefore in accordance with 40 CFR 52.21(a)(2), PSD requirements are not applicable to this permitting action. The facility is not a designated facility as defined in 40 CFR 52.21(b)(1)(i)(a), and does not have facility-wide emissions of any criteria pollutant that exceed 250 T/yr.

**NSPS Applicability (40 CFR 60)**

The facility is not subject to any NSPS requirements 40 CFR Part 60.

**NESHAP Applicability (40 CFR 61)**

The facility is not subject to any NESHAP requirements in 40 CFR 61.

**MACT Applicability (40 CFR 63)**

The facility is subject to the following MACT standard: NESHAP for Source Category:

**40 CFR 63 Subpart BBBBBBB - Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities**

See Appendix B for a breakdown of requirements for this subpart as provided by the applicant.

**Permit Conditions Review**

This section describes only those permit conditions that have been added, revised, modified or deleted as a result of this permitting action. Note that some minor editing may have been done on the existing permit conditions, but the substantive meaning of those conditions has not been changed.

Table 1.1 Regulated Sources

Tank 400 (Transmix tank) capacity was changed to 105,000 gallons. This was a typographical error the applicant reported upon reviewing the current facility draft permit. The SVE control equipment description was updated as requested by the applicant.

Permit Condition 3.1

The process description is further defined. The thermal oxidizer is renamed throughout the permit as the more descriptive term "Thermal/Catalytic Oxidizer".

Permit Condition 3.2

A description of the catalytic oxidizer mode was added and differentiated from the thermal mode at the request of the applicant.

Permit Condition 3.4

References to thermal oxidizer were changed to represent both modes of operation and mode temperature is specified for catalytic mode and thermal mode. The catalytic mode operates at a lower temperature than the thermal mode as set forth in the permit condition as requested by the applicant.

Permit Condition 3.5

Conditions for switching to standby mode were added at the request of the applicant. Language relating to removing, installing, and keeping the Thermal/Catalytic Oxidizer on site were taken out of the permit, as this is no longer how the system will operate. A requirement to shut the entire SVE system down if benzene exceedances are too high for the Thermal/Catalytic Oxidizer to remove all was not included in the permit because 17 lb/hr of benzene in the gas phase is unlikely and because the saturation concentration of benzene in air is approximately 12.5% and is even less in a VOC mixture as demonstrated in Appendix A which shows a recent analysis of the

gas entering the SVE, with benzene being approximately 1/100<sup>th</sup> of the VOC content, so the high limit for benzene is unnecessary with the 25.88 T/yr VOC limit in place in Permit Condition 4.

Permit Condition 3.6

Monthly notifications and reports requirements relieved at the request of the applicant and confirmed with DEQ Technical Services.

Permit Condition 3.7

Added low temperature shut-off requirement for catalytic mode to accompany the thermal mode shut-off temperature that was already in the permit at the request of the applicant.

Permit Condition 3.9

The standby mode operation procedure is added as a requirement in the O&M manual. In addition to this, references to thermal oxidizer were changed to the more descriptive term "Thermal/Catalytic Oxidizer".

## **PUBLIC REVIEW**

### ***Public Comment Opportunity***

Because this permitting action does not authorize an increase in emissions, an opportunity for public comment period was not required or provided in accordance with IDAPA 58.01.01.209.04 or IDAPA 58.01.01.404.04.

## APPENDIX A - GAS ENTERING SVE TEST RESULTS

Sinclair Transportation Company - Boise Tank Farm

SVE System Testing Summary

Test date	Pollutant	concentration mg/m3	flowrate cfm	Oxidizer inlet lb/hr		stack limit (effective 7/22/14)	
					tpy		
5/20/2015	Benzene	0.61	986	<b>0.0023</b>	0.0103	<b>0.17</b>	lb/hr
	TPH	660	986	2.54	<b>11.12</b>	<b>25.88</b>	tpy
	HAP	109.21	986	0.42	<b>1.84</b>	<b>9.37</b>	tpy
6/23/2015	Benzene	0.64	986	<b>0.0025</b>	0.0108	<b>0.17</b>	lb/hr
	TPH	830	986	3.19	<b>13.98</b>	<b>25.88</b>	tpy
	HAP	84.94	986	0.33	<b>1.43</b>	<b>9.37</b>	tpy
11/12/2015	Benzene	1.4	986	<b>0.0054</b>	0.0236	<b>0.17</b>	lb/hr
	TPH	836	986	3.22	<b>14.08</b>	<b>25.88</b>	tpy
	HAP	76.247	986	0.29	<b>1.28</b>	<b>9.37</b>	tpy
2/18/2016	Benzene	1.63	986	<b>0.0063</b>	0.0275	<b>0.17</b>	lb/hr
	TPH	1220	986	4.69	<b>20.55</b>	<b>25.88</b>	tpy
	HAP	59.457	986	0.23	<b>1.00</b>	<b>9.37</b>	tpy

TPH = total petroleum hydrocarbon

HAP = hazardous air pollutants (assumed to be equivalent to BTEX)

vent flowrate is assumed to be constant

## APPENDIX B – BBBBBB APPLICABILITY

### 40 CFR 63 Subpart BBBBBB Reporting Requirements

This report fulfills the reporting requirements contained in 40 CFR 63, Subpart BBBBBB. This report is formatted such that all of the semi-annual reporting requirements are identified

#### SECTION 1.0 GENERAL APPLICABILITY

##### Applicability § 63.11081

The affected source to which this subpart applies is each area source bulk gasoline terminal, pipeline breakout station, pipeline pumping station, and bulk gasoline plant identified in paragraphs (a)(1) through (4) of this section. You are subject to the requirements in this subpart if you own or operate one or more of the affected area sources identified in paragraphs (a)(1) through (4) of this section.

63.11081(a)(1) A bulk gasoline terminal that is not subject to the control requirements of 40 CFR part 63, subpart R (§§63.422, 63.423, and 63.424) or 40 CFR part 63, subpart CC (§§63.646, 63.648, 63.649, and 63.650).

63.11081(a)(2) A pipeline breakout station that is not subject to the control requirements of 40 CFR part 63, subpart R (§§63.423 and 63.424).

63.11081(a)(3) A pipeline pumping station. 63.11081(a)(4) A bulk gasoline plant.

**STC is subject to the reporting requirements of § 63.11081 because STC operates a pipeline breakout station that is not subject to the control requirements of 40 CFR part 63, subpart R (§63.422, 63.423, and 63.424) or 40 CFR part 63, subpart CC (§63.646, 63.648, 63.649, and 63.650).**

#### SECTION 2.0 REPORTING REQUIREMENTS

##### 63.11095(a)

Each owner or operator of a bulk terminal or a pipeline breakout station subject to the control requirements of this subpart shall include in a semiannual compliance report to the Administrator the following information, as applicable:

##### 63.11095(a)(1)

For storage vessels, if you are complying with options 2(a), 2(b), or 2(c) in Table 1 to this subpart, the information specified in §60.115b(a), §60.115b(b), or §60.115b(c) of this chapter, depending upon the control equipment installed, or, if you are complying with option 2(d) in Table 1 to this subpart, the information specified in §63.1066.

**Tanks 401, 404, 411 421 and 431 must comply with the requirements of option 2(c) in Table 1 to this subpart, therefore the information specified in §60.115b(b) applies. However, per §63.11087(b) below:**

You must comply with the requirements of this subpart by the applicable dates specified in §63.11083, except that storage vessels equipped with floating roofs and not meeting the requirements of paragraph (a) of this section must be in compliance at the first degassing and cleaning activity after

January 10, 2011 or by January 10, 2018, whichever is first.

**Sinclair will report degassing or cleaning activities**

63.11095(a)(3)

For equipment leak inspections, the number of equipment leaks not repaired within 15 days after detection.

**Sinclair will report instances of equipment leaks not repaired within 15 days after detection during the reporting period.**

63.11095(b)

Each owner or operator of an affected source subject to the control requirements of this subpart shall submit an excess emissions report to the Administrator at the time the semiannual compliance report is submitted. Excess emissions events under this subpart, and the information to be included in the excess emissions report, are specified in paragraphs (b)(1) through (5) of this section.

63.11095(b)(5)

For each occurrence of an equipment leak for which no repair attempt was made within five days or for which repair was not completed within 15 days after detection:

**Sinclair will report instances of equipment leaks without a repair attempt within five days or for which repair was not completed within 15 days after detection during the reporting period.**

63.11095(b)(5)(i)

The date on which the leak was detected;

**Sinclair will report as applicable**

63.11095(b)(5)(iii)

The reasons for the delay of repair; and

63.11095(b)(5)(iv)

The date of successful repair.

**Sinclair will report as applicable**

63.11095(c)

Each owner or operator of a bulk gasoline plant or a pipeline pumping station shall submit a semiannual excess emissions report, including the information specified in paragraphs (a)(3) and (b)(5) of this section, only for a 6-month period during which an excess emission event has occurred. If no excess emission events have occurred during the previous six month period, no report is required.

**Sinclair will report as applicable**

63.11095(d)

Each owner or operator of an affected source under this subpart shall submit a semiannual report including the number, duration, and a brief description of each type of malfunction which occurred

during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.11085(a), including actions taken to correct a malfunction. The report may be submitted as a part of the semiannual compliance report, if one is required. Owners or operators of affected bulk plants and pipeline pumping stations are not required to submit reports for periods during which no malfunctions occurred.

**Sinclair will report as applicable**

## APPENDIX C – FEE CALCULATION

**Company:** Sinclair Transportation Company  
**Boise Tank Farm**  
**Address:** 712 North Curtis Road  
**City:** Boise  
**State:** ID  
**Zip Code:** 83706  
**Facility Contact:** Sam Greene  
**Title:** Corporate Environmental Engineer  
**AIRS No.:** 001-00112

- N** Does this facility qualify for a general permit (i.e. concrete batch plant, hot-mix asphalt plant)? Y/N  
**Y** Did this permit require engineering analysis? Y/N  
**N** Is this a PSD permit Y/N (IDAPA 58.01.01.205.04)

<b>Emissions Inventory</b>			
Pollutant	Annual Emissions Increase (T/yr)	Annual Emissions Reduction (T/yr)	Annual Emissions Change (T/yr)
NO <sub>x</sub>	0.0	0	0.0
SO <sub>2</sub>	0.0	0	0.0
CO	0.0	0	0.0
PM10	0.0	0	0.0
VOC	0.0	0	0.0
TAPS/HAPS	0.0	0	0.0
<b>Total:</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
Fee Due	<b>\$ 1,000.00</b>		

Fee Amount (based on emissions)  
 1000