



June 19, 2015

Mr. Ted Schooley
NMED Air Quality Bureau
525 Camino de los Marquez, Suite 1
Santa Fe, New Mexico 87505

*RE: Revised Application for a Technical Revision to NSR Permit 1313-M5R4 for
Western Refining Southwest, Inc. Wingate Facility*

Dear Mr. Schooley:

On behalf of Western Refining Southwest, Inc., we are submitting an application for Significant Revision to NSR Permit 1313-M5R4. The following paragraph details the changes being requested in this application.

Currently the facility is authorized as a gas processing plant including loading and unloading liquefied petroleum gas (LPG), such as propane, butane, and natural gasoline to and from pressurized storage tanks to railcars or trucks. With this application, Western is seeking authorization to change the primary function of the facility to a crude oil transloading facility. As a result, the facility is now categorized under the SIC code for petroleum bulk stations and terminals (SIC code 5171) instead of under the category for natural gas liquids (SIC code 1321).

In addition to the crude transloading operations, Western will install a vapor combustion unit and two external floating roof tanks. The modifications and additions of new emission sources will result in emissions more than one (1) pound per hour, Western is submitting this Significant Revision under 20.2.72.219.D.1.a. Also multiple units at the facility will be removed.

Please feel free to contact Ed Riege (Western Refining) at (505) 722-0217 or via email at Ed.Riege@wnr.com if you have any questions regarding this application.

Sincerely,

Jane Romero Kotovsky
Senior Consultant

Cc: Ed Riege (Western Refining Southwest Inc)



Western Refining Southwest Inc
 1250 W Washington Suite 101
 Tempe AZ 85281
 (602) 286-1400

Check: 10502581
 Date: 12/10/2014
 Supplier: 72964
 Stub 1 of 1

| <u>Invoice Number</u> | <u>Invoice Date</u> | <u>Description</u> | <u>Gross</u> | <u>Discount</u> | <u>Net</u> |
|-----------------------|---------------------|--------------------|---------------|-----------------|---------------|
| CKR121014 | 12/10/14 | NSR1313-M5R1 | 500.00 | | 500.00 |
| TOTALS | | | 500.00 | | 500.00 |

Western Refining offers electronic payment option - Contact (602) 286-1400

THE FACE OF THIS CHECK IS PRINTED BLUE - THE BACK CONTAINS A SIMULATED WATERMARK



Western Refining Southwest Inc
 1250 W Washington Suite 101
 Tempe AZ 85281
 (602) 286-1400

Bank of America
 DALLAS, TEXAS
 64-1278/611

10502581

Date: 12/10/2014

Check No.: 10502581

\$*****500.00
 Amount

Pay

FIVE HUNDRED AND 00/100*****

To the Order Of:

New Mexico Environment Department
 Air Quality Bureau
 525 Camino De Los Marquez Suite 1
 Santa Fe NM 87505-1816



⑈ 1050258 1⑈ ⑆061112788⑆ 003299838344⑈

| | | |
|---|--|--|
| Mail Application To: New Mexico Environment Department Air Quality Bureau Permits Section 525 Camino de los Marquez, Suite 1 Santa Fe, New Mexico, 87505 Phone: (505) 476-4300 Fax: (505) 476-4375 www.nmenv.state.nm.us/aqb |  | For Department use only: AIRS No.: |
|---|--|--|

Universal Air Quality Permit Application

Use this application for NOI, NSR, or Title V sources.

Use this application for: the initial application, modifications, technical revisions, and renewals. For technical revisions, complete Sections, 1-A, 1-B, 2-E, 3, 9 and any other sections that are relevant to the requested action; coordination with the Air Quality Bureau permit staff prior to submittal is encouraged to clarify submittal requirements and to determine if more or less than these sections of the application are needed. Use this application for streamline permits as well. For NOI applications, submit the entire UA1, UA2, and UA3 applications on a single CD (no copies are needed). For NOIs, hard copies of UA1, Tables 2A, 2D & 2F, Section 3 and the signed Certification Page are required.

This application is being submitted as (check all that apply): Request for a No Permit Required Determination (no fee)
 Updating an application currently under NMED review. Include this page and all pages that are being updated (no fee required).
 Construction Status: Not Constructed Existing Permitted (or NOI) Facility Existing Non-permitted (or NOI) Facility
 Minor Source: a NOI 20.2.73 NMAC 20.2.72 NMAC application/revision 20.2.72.300 NMAC Streamline application
 Title V Source: Title V (new) Title V renewal TV minor mod. TV significant mod. TV Acid Rain: New Renewal
 PSD Major Source: PSD major source (new) minor modification to a PSD source a PSD major modification

Acknowledgements: I acknowledge that a pre-application meeting is available to me upon request NPR (no fee)
 \$500 NSR Permit Filing Fee enclosed **OR** The full permit fee associated with 10 fee points (required w/ streamline applications).
 Check No.: 10502581 in the amount of \$500 (Fee not required for Title V) This facility meets the applicable requirements to register as a Small Business and a check for 50% of the normal fee is enclosed (only applicable **provided** that NMED has a Small Business Certification Form from your company on file found at: http://www.nmenv.state.nm.us/aqb/permit/app_form.html).

Citation: Please provide the **low level citation** under which this application is being submitted: **20.2.72.219.D.1 NMAC** (i.e. an example of an application for a new minor source would be 20.2.72.200.A NMAC, one example of a low level cite for a Technical Revision could be: 20.2.72.219.B.1.b NMAC, or a Title V acid rain cite would be: 20.2.70.200.C NMAC)

Synthetic Minor Source Information: A source is synthetic minor if its uncontrolled emissions are above major source applicability thresholds, but the facility is minor because it has federally enforceable requirements (federal requirements or permit conditions) that limit controlled emissions below major source thresholds. Facilities can be synthetic minor for either Title V (20.2.70 NMAC) or PSD (20.2.74 NMAC) or both. The Department tracks synthetic minor sources that are within 20% of either TV or PSD major source thresholds, referring to these as Synthetic Minor 80 Sources (abbreviated SM80). Please check all that apply:
 Prior to this permitting action this source is a TV major source, a TV synthetic minor source, a TV SM80 source.
 Prior to this permitting action this source is a PSD major source, a PSD synthetic minor source, a PSD SM80 source.
 This permitting action results in a TV synthetic minor source and/or PSD synthetic minor source.

Section 1 – Facility Information

| Section 1-A: Company Information | | AI # (if known):884 | Updating Permit/NOI #: NSR 1313-M5R4 |
|---|--|---|--------------------------------------|
| 1 | Facility Name: Western Refining Wingate Facility | Plant primary SIC Code (4 digits):5171 | |
| a | Facility Street Address (If no facility street address, provide directions from a prominent landmark): #68 El Paso Circle, Gallup, NM 87301 | | |
| 2 | Plant Operator Company Name: Western Refining Southwest, Inc. | Phone/Fax: (505) 722-3833/ (505) 722-0210 | |
| a | Plant Operator Address: 92 Giant Crossing Road, Gallup NM 87301 | | |
| b | Plant Operator's New Mexico Corporate ID or Tax ID: NM 01-802059-003 | | |

| | | |
|---|--|---|
| 3 | Plant Owner(s) name(s): Western Refining Southwest, Inc. | Phone/Fax: (505) 722-3833/ (505) 722-0210 |
| a | Plant Owner(s) Mailing Address(s): 92 Giant Crossing Road, Gallup NM 87301 | |
| 4 | Bill To (Company): Western Refining Southwest, Inc. | Phone/Fax: (505) 722-3833/ (505) 722-0210 |
| a | Mailing Address: 92 Giant Crossing Road, Gallup NM 87301 | E-mail: Ed.Riege@wnr.com |
| 5 | <input checked="" type="checkbox"/> Preparer: <input checked="" type="checkbox"/> Consultant: Trinity Consultants, Inc. | Phone/Fax: (505) 266-6611/ (505) 266-7738 |
| a | Mailing Address: 9400 Holly Blvd NE, Building 3, Suite A, Albuquerque, NM 87122 | E-mail: jromero@trinityconsultants.com |
| 6 | Plant Operator Contact: Ed Riege | Phone/Fax: (505) 722-0217/ (505) 722-0210 |
| a | Address: 92 Giant Crossing Road, Gallup NM 87301 | E-mail: Ed.Riege@wnr.com |
| 7 | Air Permit Contact: Ed Riege | Title: Environmental Manager |
| a | E-mail: Ed.Riege@wnr.com | Phone/Fax: (505) 722-0217/ (505) 722-0210 |
| b | Mailing Address: 92 Giant Crossing Road, Gallup NM 87301 | |

Section 1-B: Current Facility Status

| | | |
|-----|---|--|
| 1.a | Has this facility already been constructed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 1.b If yes to question 1.a, is it currently operating in New Mexico? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 2 | If yes to question 1.a, was the existing facility subject to a Notice of Intent (NOI) (20.2.73 NMAC) before submittal of this application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | If yes to question 1.a, was the existing facility subject to a construction permit (20.2.72 NMAC) before submittal of this application? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 3 | Is the facility currently shut down? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | If yes, give month and year of shut down (MM/YY): N/A |
| 4 | Was this facility constructed before 8/31/1972 and continuously operated since 1972? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |
| 5 | If Yes to question 3, has this facility been modified (see 20.2.72.7.P NMAC) or the capacity increased since 8/31/1972? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | |
| 6 | Does this facility have a Title V operating permit (20.2.70 NMAC)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | If yes, the permit No. is: P117-R2 |
| 7 | Has this facility been issued a No Permit Required (NPR)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | If yes, the NPR No. is: N/A |
| 8 | Has this facility been issued a Notice of Intent (NOI)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | If yes, the NOI No. is: N/A |
| 9 | Does this facility have a construction permit (20.2.72 NMAC)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | If yes, the permit No. is: 1313-M5R4 |
| 10 | Is this facility registered under a General permit (GCP-1, GCP-2, etc.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | If yes, the register No. is: N/A |

Section 1-C: Facility Input Capacity & Production Rate*

| | | | | |
|---|--|-------------------|-------------------|--------------------------|
| 1 | What is the facility's maximum input capacity, specify units (reference here and list capacities in Section 20, if more room is required) | | | |
| a | Current | Hourly: 1,042 bbl | Daily: 25,000 bbl | Annually: 9,125,000 bbl |
| b | Proposed | Hourly: 4,620 bbl | Daily: 40,000 bbl | Annually: 14,600,000 bbl |
| 2 | What is the facility's maximum production rate, specify units (reference here and list capacities in Section 20, if more room is required) | | | |
| a | Current | Hourly: 1,042 bbl | Daily: 25,000 bbl | Annually: 9,125,000 bbl |
| b | Proposed | Hourly: 4,620 bbl | Daily: 40,000 bbl | Annually: 14,600,000 bbl |

*With this application the facility is changing the main function from natural gas processing to crude transloading.

Section 1-D: Facility Location Information

| | | | | | |
|----|--|------------|---------------|---|-----------------------|
| 1 | Section: 16 | Range: 17W | Township: 15N | County: McKinley | Elevation (ft): 6,600 |
| 2 | UTM Zone: <input checked="" type="checkbox"/> 12 or <input type="checkbox"/> 13 | | | Datum: <input type="checkbox"/> NAD 27 <input type="checkbox"/> NAD 83 <input checked="" type="checkbox"/> WGS 84 | |
| a | UTM E (in meters, to nearest 10 meters): 714,000 m E | | | UTM N (in meters, to nearest 10 meters): 3,935,000 m N | |
| b | AND Latitude (deg., min., sec.): 35° 32' 08" | | | Longitude (deg., min., sec.): -108° 38' 22.6" | |
| 3 | Name and zip code of nearest New Mexico town: Gallup, NM 87301 | | | | |
| 4 | Detailed Driving Instructions from nearest NM town (attach a road map if necessary): From I-40, take exit 26. Turn right onto Hwy 118 (historic route 66). Continue east approximately 1.5 miles. Turn left toward El Paso Circle for 0.4 mile. Continue to the end of the paved road. | | | | |
| 5 | The facility is 6 miles east of Gallup, NM. | | | | |
| 6 | Status of land at facility (check one): <input checked="" type="checkbox"/> Private <input type="checkbox"/> Indian/Pueblo <input type="checkbox"/> Federal BLM <input type="checkbox"/> Federal Forest Service <input type="checkbox"/> Other specify) Please note the flare for the facility is located on the Navajo Reservation and is not under the NMED jurisdiction; | | | | |
| 7 | List all municipalities, Indian tribes, and counties within a ten (10) mile radius (20.2.72.203.B.2 NMAC) of the property on which the facility is proposed to be constructed or operated: Municipalities – Gallup, NM, Rehoboth, NM, Ft Wingate, NM, Church Rock, NM; Indian Tribes – Navajo Indian Reservation; Counties - McKinley | | | | |
| 8 | 20.2.72 NMAC applications only: Will the property on which the facility is proposed to be constructed or operated be closer than 50 km (31 miles) to other states, Bernalillo County, or a Class I area (see www.nmenv.state.nm.us/aqb/modeling/classIareas.html)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (20.2.72.206.A.7 NMAC) If yes, list all with corresponding distances in kilometers: Arizona ~ 36.9 Km | | | | |
| 9 | Name nearest Class I area: Petrified Forest National Park | | | | |
| 10 | Shortest distance (in km) from facility boundary to the boundary of the nearest Class I area (to the nearest 10 meters): ~103.9 Km | | | | |
| 11 | Distance (meters) from the perimeter of the Area of Operations (AO is defined as the plant site inclusive of all disturbed lands, including mining overburden removal areas) to nearest residence, school or occupied structure: ~ 425 m | | | | |
| 12 | Method(s) used to delineate the Restricted Area: Continuous fencing around property perimeter. “ Restricted Area ” is an area to which public entry is effectively precluded. Effective barriers include continuous fencing, continuous walls, or other continuous barriers approved by the Department, such as rugged physical terrain with steep grade that would require special equipment to traverse. If a large property is completely enclosed by fencing, a restricted area within the property may be identified with signage only. Public roads cannot be part of a Restricted Area. | | | | |
| 13 | Is this a stationary portable source as defined in 20.2.72.7.X NMAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | | |
| 14 | Will this facility operate in conjunction with other air regulated parties on the same property? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, what is the name and permit number (if known) of the other facility? The flare for the facility is regulated by the NNEPA since it is located on the Navajo Nation Reservation. The Title V Permit number is NN OP 05-011. | | | | |

Section 1-E: Proposed Operating Schedule (The 1-E.1 & 1-E.2 operating schedules may become conditions in the permit.)

| | | | | |
|---|---|--|--|---|
| 1 | Facility maximum operating ($\frac{\text{hours}}{\text{day}}$): 24 | ($\frac{\text{days}}{\text{week}}$): 7 | ($\frac{\text{weeks}}{\text{year}}$): 52 | ($\frac{\text{hours}}{\text{year}}$): 8,760 |
| 2 | Facility's maximum daily operating schedule (if less than 24 $\frac{\text{hours}}{\text{day}}$)? Start: N/A | | AM PM | End: N/A <input type="checkbox"/> AM <input type="checkbox"/> PM |
| 3 | Month and year of anticipated start of construction: Upon receipt of this permit; | | | |
| 4 | Month and year of anticipated construction completion: TBD | | | |
| 5 | Month and year of anticipated startup of new or modified facility: TBD | | | |
| 6 | Will this facility operate at this site for more than one year? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | | |

Section 1-F: Other Facility Information

| | | | |
|---|--|----------------------|--|
| 1 | Are there any current Notice of Violations (NOV), compliance orders, or any other compliance or enforcement issues related to this facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, specify: N/A – Under Western Refining Southwest, Inc., this facility does not have any Notice of Violations (NOV), compliance orders, or any other compliance or enforcement issues. | | |
| a | If yes, NOV date or description of issue: N/A | NOV Tracking No: N/A | |
| b | Is this application in response to any issue listed in 1-F, 1 or 1a above? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, provide the 1c & 1d info below: | | |
| c | Document Title: N/A | Date: N/A | Requirement # (or page # and paragraph #): N/A |
| d | Provide the required text to be inserted in this permit: N/A | | |
| 2 | Is air quality dispersion modeling being submitted with this application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | |
| 3 | Does this facility require an "Air Toxics" permit under 20.2.72.400 NMAC & 20.2.72.502, Tables A and/or B? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | |
| 4 | Will this facility be a source of federal Hazardous Air Pollutants (HAP)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | |
| a | If Yes, what type of source? <input type="checkbox"/> Major (<input type="checkbox"/> ≥ 10 tpy of any single HAP OR <input type="checkbox"/> ≥ 25 tpy of any combination of HAPS) OR <input checked="" type="checkbox"/> Minor (<input checked="" type="checkbox"/> < 10 tpy of any single HAP AND <input checked="" type="checkbox"/> < 25 tpy of any combination of HAPS) | | |
| b | If 4.a is Yes, identify the subparts in 40 CFR 61 & 40 CFR 63 that apply to this facility (If no subparts apply, enter "N/A."): 40 CFR 63, Subpart ZZZZ; | | |
| 5 | Is any unit exempt under 20.2.72.202.B.3 NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | |
| a | If yes, include the name of company providing commercial electric power to the facility: <u>City of Gallup</u> Commercial power is purchased from a commercial utility company, which specifically does not include power generated on site for the sole purpose of the user. | | |

Section 1-G: Streamline Application

(This section applies to 20.2.72.300 NMAC Streamline applications only)

| | |
|---|--|
| 1 | <input type="checkbox"/> I have filled out Section 18, "Addendum for Streamline Applications." <input checked="" type="checkbox"/> N/A (This is not a Streamline application.) |
|---|--|

Section 1-H: Title V Specific Information

(Fill this section out only if this is a Title V application.)

| | | |
|---|--|-----------------|
| 1 | Responsible Official (20.2.70.300.D.2 NMAC): | Phone: |
| a | R.O. Title: | R.O. e-mail: |
| b | R. O. Address: | |
| 2 | Alternate Responsible Official (20.2.70.300.D.2 NMAC): | Phone: |
| a | A. R.O. Title: | A. R.O. e-mail: |
| b | A. R. O. Address: | |
| 3 | Company's Corporate or Partnership Relationship to any other Air Quality Permittee (List the names of any companies that have operating (20.2.70 NMAC) permits and with whom the applicant for this permit has a corporate or partnership relationship): | |
| 4 | Name of Parent Company ("Parent Company" means the primary name of the organization that owns the company to be permitted wholly or in part.): | |
| a | Address of Parent Company: | |
| 5 | Names of Subsidiary Companies ("Subsidiary Companies" means organizations, branches, divisions or subsidiaries, which are owned, wholly or in part, by the company to be permitted.): | |
| 6 | Telephone numbers & names of the owners' agents and site contacts familiar with plant operations: | |

| | |
|---|--|
| 7 | Affected Programs to include Other States, local air pollution control programs (i.e. Bernalillo) and Indian tribes: Will the property on which the facility is proposed to be constructed or operated be closer than 80 km (50 miles) from other states, local pollution control programs, and Indian tribes and pueblos (20.2.70.402.A.2 and 20.2.70.7.B)? If yes, state which ones and provide the distances in kilometers: |
|---|--|

Section 1-I – Submittal Requirements

Each 20.2.73 NMAC (NOI), a 20.2.70 NMAC (Title V), a 20.2.72 NMAC (NSR minor source), or 20.2.74 NMAC (PSD) application package shall consist of the following:

Hard Copy Submittal Requirements:

- 1) One hard copy **original signed and notarized application package printed double sided ‘head-to-toe’ 2-hole punched** as we bind the document on top, not on the side; except Section 2 (landscape tables), which should be **head-to-head**. If ‘head-to-toe printing’ is not possible, print single sided. Please use **numbered tab separators** in the hard copy submittal(s) as this facilitates the review process. For NOI submittals only, hard copies of UA1, Tables 2A, 2D & 2F, Section 3 and the signed Certification Page are required.
- 2) If the application is for a NSR or Title V permitting action, include one working hard **copy** for Department use. This **copy** does not need to be 2-hole punched. Technical revisions only need to fill out Section 1-A, 1-B, 3, and should fill out those portions of other Section(s) relevant to the technical revision. TV Minor Modifications need only fill out Section 1-A, 1-B, 1-H, 3, and those portions of other Section(s) relevant to the minor modification. NMED may require additional portions of the application to be submitted, as needed.
- 3) The entire NOI or Permit application package, including the full modeling study, should be submitted electronically on compact disk(s) (CD). For permit application submittals, **two CD** copies are required (in sleeves, not crystal cases, please), with additional CD copies as specified below. NOI applications require only a **single CD** submittal.
- 4) If **air dispersion modeling** is required by the application type, include the **NMED Modeling Waiver OR** one additional electronic copy of the air dispersion modeling including the input and output files. The dispersion modeling **summary report only** should be submitted as hard copy(ies) unless otherwise indicated by the Bureau. The complete dispersion modeling study, including all input/output files, should be submitted electronically as part of the electronic submittal.
- 5) If subject to PSD review under 20.2.74 NMAC (PSD) include,
 - a. one additional hard copy and one additional CD copy for US EPA,
 - b. one additional hard copy and one additional CD copy for each federal land manager affected (NPS, USFS, FWS, USDI) and,
 - c. one additional hard copy and one additional CD copy for each affected regulatory agency other than the Air Quality Bureau.

Electronic Submittal Requirements [in addition to the required hard copy(ies)]:

- 1) All required electronic documents shall be submitted in duplicate (2 separate CDs). A single PDF document of the entire application as submitted and the individual documents comprising the application.
- 2) The documents should also be submitted in Microsoft Office compatible file format (Word, Excel, etc.) allowing us to access the text in the documents (copy & paste). Any documents that cannot be submitted in a Microsoft Office compatible format shall be saved as a PDF file from within the electronic document that created the file. If you are unable to provide Microsoft office compatible electronic files or internally generated PDF files of files (items that were not created electronically: i.e. brochures, maps, graphics, etc.), submit these items in hard copy format with the number of additional hard copies corresponding to the number of CD copies required. We must be able to review the formulas and inputs that calculated the emissions.
- 3) It is preferred that this application form be submitted as 3 electronic files (**2 MSWord docs**: Universal Application section 1 and Universal Application section 3-19) and **1 Excel file** of the tables (Universal Application section 2) on the CD(s). Please include as many of the 3-19 Sections as practical in a single MS Word electronic document. Create separate electronic file(s) if a single file becomes too large or if portions must be saved in a file format other than MS Word.
- 4) The **electronic file names** shall be a maximum of 25 characters long (including spaces, if any). The format of the electronic Universal Application shall be in the format: “A-3423-FacilityName”. The “A” distinguishes the file as an application submittal, as opposed to other documents the Department itself puts into the database. Thus, all electronic application submittals should begin with “A-”. Modifications to existing facilities should use the **core permit number** (i.e. ‘3423’) the Department assigned to the facility as the next 4 digits. Use ‘XXXX’ for new facility applications. The format of any separate electronic submittals (additional submittals such as non-Word attachments, re-submittals, application updates) and Section document shall be in the format: “A-3423-9-description”, where “9” stands for the **section #** (in this case Section 9-Public Notice). Please refrain, as much as possible, from submitting any scanned documents as this file format is extremely large, which uses up too much storage capacity in our database. Please take the time to fill out the **header information** throughout all submittals as this will identify any loose pages, including the Application Date (date submitted) & Revision # (0 for original, 1, 2, etc.; which will help keep track of subsequent partial update(s) to the original submittal. The footer information should not be modified by the applicant.

Table of Contents

| | |
|--------------------|---|
| Section 1: | General Facility Information |
| Section 2: | Tables |
| Section 3: | Application Summary |
| Section 4: | Process Flow Sheet |
| Section 5: | Plot Plan Drawn to Scale |
| Section 6: | All Calculations |
| Section 7: | Information Used to Determine Emissions |
| Section 8: | Map(s) |
| Section 9: | Proof of Public Notice |
| Section 10: | Written Description of the Routine Operations of the Facility |
| Section 11: | Source Determination |
| Section 12: | PSD Applicability Determination for All Sources & Special Requirements for a PSD Application |
| Section 13: | Discussion Demonstrating Compliance with Each Applicable State & Federal Regulation |
| Section 14: | Operational Plan to Mitigate Emissions |
| Section 15: | Alternative Operating Scenarios |
| Section 16: | Air Dispersion Modeling |
| Section 17: | Compliance Test History |
| Section 18: | Addendum for Streamline Applications (streamline applications only) |
| Section 19: | Requirements for the Title V (20.2.70 NMAC) Program (Title V applications only) |
| Section 20: | Other Relevant Information |
| Section 21: | Addendum for Landfill Applications |
| Section 22: | Green House Gas Applicability |
| Section 23: | Certification Page |

Table 2-A: Regulated Emission Sources

Unit and stack numbering must correspond throughout the application package. If applying for a NOI under 20.2.73 NMAC, equipment exemptions under 2.72.202 NMAC do not apply.

| Unit Number ¹ | Source Description | Manufacturer | Model # | Serial # | Maximum or Rated Capacity ³ (Specify Units) | Requested Permitted Capacity ³ (Specify Units) | Date of Manufacture or Reconstruction ² | | Source Classification Code (SCC) | For Each Piece of Equipment, Check One | Applicable State & Federal Regulation(s) (i.e. 20.2.X, JJJJ, ...) | Replacing Unit No. |
|--------------------------|--|-------------------------|-------------|----------|--|---|--|---|----------------------------------|--|--|--------------------|
| | | | | | | | Date of Installation /Construction ² | Controlled by Unit # Emissions vented to Stack # | | | | |
| 7 | Natural Gas Boiler #4 | Vogt | Class VV-35 | N/A | 91 MMBtu/hr | 91 MMBtu/hr | ~1961 | N/A | 10200602 | <input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> New/Additional <input type="checkbox"/> To Be Modified <input checked="" type="checkbox"/> To Be Removed <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Replaced | 20.2.61 NMAC 20.2.37 NMAC | N/A |
| 11 | VRU (fugitive) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 31088811 | <input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> New/Additional <input type="checkbox"/> To Be Modified <input checked="" type="checkbox"/> To Be Removed <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Replaced | N/A | N/A |
| 12 | Mega Fractionalization Train | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 31000203 | <input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> New/Additional <input type="checkbox"/> To Be Modified <input checked="" type="checkbox"/> To Be Removed <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Replaced | N/A | N/A |
| 16 | Truck Rack System (Fugitive) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 31088811 | <input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> New/Additional <input type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Removed <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Replaced | N/A | N/A |
| 18 | Butamer Unit | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 31088811 | <input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> New/Additional <input type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Removed <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Replaced | 40 CFR 60, Subpart NNN; 40 CFR 60, Subpart RRR | N/A |
| 19 | Natural Gas Fueled Boiler #6 | Nebraska Boiler Company | NSX-G-108 | N/A | 207 MMBtu/hr | 207 MMBtu/hr | 1998 | N/A | 10200601 | <input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> New/Additional <input type="checkbox"/> To Be Modified <input checked="" type="checkbox"/> To Be Removed <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Replaced | 20.2.33 NMAC ; 20.2.61 NMAC; 20.2.37 NMAC; 40 CFR 60 Subpart Db | N/A |
| 20 | Propane Storage and Rail Loading (Fugitive) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 31088811 | <input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> New/Additional <input type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Removed <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Replaced | N/A | N/A |
| 21 | Isobutane Storage and Rail Loading (Fugitive) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 31088811 | <input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> New/Additional <input type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Removed <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Replaced | N/A | N/A |
| 22 | N-butane Storage and Rail Loading (Fugitive) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 31088811 | <input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> New/Additional <input type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Removed <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Replaced | N/A | N/A |
| 23 | Pentanes Storage and Rail Loading (Fugitive) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 31088811 | <input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> New/Additional <input type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Removed <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Replaced | N/A | N/A |
| 24 | Ethyl Mercaptan Storage & Injection System Fugitives | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 31088811 | <input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> New/Additional <input type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Removed <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Replaced | N/A | N/A |
| 25 | Product Pumping System (Fugitive) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 31088811 | <input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> New/Additional <input type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Removed <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Replaced | N/A | N/A |
| 26 | Blowdown from Loading Hoses | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 31088811 | <input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> New/Additional <input type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Removed <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Replaced | N/A | N/A |

| Unit Number ¹ | Source Description | Manufacturer | Model # | Serial # | Maximum or Rated Capacity ³ (Specify Units) | Requested Permitted Capacity ³ (Specify Units) | Date of Manufacture or Reconstruction ² | | Controlled by Unit # | Source Classification Code (SCC) | For Each Piece of Equipment, Check One | Applicable State & Federal Regulation(s) (i.e. 20.2.X, JJJ, ...) | Replacing Unit No. |
|--------------------------|--|--------------|---------|----------|--|---|--|-----------------------------|----------------------|---|--|--|--------------------|
| | | | | | | | Date of Installation /Construction ² | Emissions vented to Stack # | | | | | |
| 27 | Boiler | TBD | TBD | N/A | 84 MMBtu/hr | 84 MMBtu/hr | TBD | N/A | 10200601 | <input type="checkbox"/> Existing (unchanged) <input checked="" type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced | 20.2.33 NMAC; 20.2.61 NMAC 20.2.37 NMAC 40 CFR 60, Subpart Dc | N/A | |
| | | | | | | | TBD | 27 | | | | | |
| 28 | Boiler | TBD | TBD | N/A | 84 MMBtu/hr | 84 MMBtu/hr | TBD | N/A | 10200601 | <input type="checkbox"/> Existing (unchanged) <input checked="" type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced | 20.2.33 NMAC; 20.2.61 NMAC 20.2.37 NMAC 40 CFR 60, Subpart Dc | N/A | |
| | | | | | | | TBD | 28 | | | | | |
| 29 | Boiler | TBD | TBD | N/A | 168 MMBtu/hr | 168 MMBtu/hr | TBD | N/A | 10200601 | <input type="checkbox"/> Existing (unchanged) <input checked="" type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced | 20.2.33 NMAC; 20.2.61 NMAC 20.2.37 NMAC 40 CFR 60 Subpart Db | N/A | |
| | | | | | | | TBD | 29 | | | | | |
| TK-1 | Crude Storage External Floating Roof Tank | N/A | N/A | N/A | 120,000 bbl | 120,000 bbl | TBD | N/A | 40400149 | <input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input checked="" type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced | 40 CFR 60, Subpart Kb | N/A | |
| | | | | | | | TBD | TK-1 | | | | | |
| TK-2 | Crude Storage External Floating Roof Tank | N/A | N/A | N/A | 120,000 bbl | 120,000 bbl | TBD | N/A | 40400149 | <input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input checked="" type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced | 40 CFR 60, Subpart Kb | N/A | |
| | | | | | | | TBD | TK-2 | | | | | |
| TR-HOSE | Hose disconnect fugitive emissions associated with Truck Unloading | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 40400150 | <input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input checked="" type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced | N/A | N/A | |
| | | | | | | | N/A | TR-HOSE | | | | | |
| RC-FUG | Fugitive emissions associated with Crude Rail Loading | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 40400150 | <input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input checked="" type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced | N/A | N/A | |
| | | | | | | | N/A | RC-FUG | | | | | |
| RC-LOAD | Rail loading emissions captured by the VCU | N/A | N/A | N/A | N/A | N/A | N/A | VCU-1 | 40400150 | <input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input checked="" type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced | N/A | N/A | |
| | | | | | | | N/A | RC-LOAD | | | | | |
| RC-UNCAP | Rail loading emissions uncaptured by the VCU | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 40400150 | <input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input checked="" type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced | N/A | N/A | |
| | | | | | | | N/A | RC-UNCAP | | | | | |
| RC-HOSE | Hose disconnect fugitive emissions associated with Rail Loading | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 40400150 | <input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input checked="" type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced | N/A | N/A | |
| | | | | | | | N/A | RC-HOSE | | | | | |
| VCU-1 | Vapor Combustion Unit | TBD | TBD | TBD | TBD | TBD | TBD | N/A | 404001153 | <input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input checked="" type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced | 20.2.61 NMAC | N/A | |
| | | | | | | | TBD | VCU-1 | | | | | |
| Haul-Rd | Haul road emissions | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 31088811 | <input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input checked="" type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced | N/A | N/A | |
| | | | | | | | N/A | N/A | | | | | |
| TK-DEGAS | Degassing, Filling and Landing Losses | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 31088811 | <input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input checked="" type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced | N/A | N/A | |
| | | | | | | | N/A | N/A | | | | | |
| SSM/M | Startup, Shutdown, Routine Maintenance and Malfunction | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 31088811 | <input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced | N/A | N/A | |
| | | | | | | | N/A | N/A | | | | | |

¹ Unit numbers must correspond to unit numbers in the previous permit unless a complete cross reference table of all units in both permits is provided.

² Specify dates required to determine regulatory applicability.

³ To properly account for power conversion efficiencies, generator set rated capacity shall be reported as the rated capacity of the engine in horsepower, not the kilowatt capacity of the generator set.

Table 2-B: Insignificant Activities¹ (20.2.70 NMAC) OR Exempted Equipment (20.2.72 NMAC)

All 20.2.70 NMAC (Title V) applications must list all Insignificant Activities in this table. All 20.2.72 NMAC applications must list Exempted Equipment in this table. If equipment listed on this table is exempt under 20.2.72.202.B.5, include emissions calculations and emissions totals for 20.2.B.5 "similar functions" units, operations, and activities in Section 6, Calculations. Equipment and activities exempted under 20.2.72.202 NMAC may not necessarily be Insignificant under 20.2.70 NMAC (and vice versa). Unit & stack numbering must be consistent throughout the application package. Per Exemptions Policy 02-012.00 (see http://www.nmenv.state.nm.us/aqb/permit/aqb_pol.html), 20.2.72.202.B NMAC Exemptions do not apply, but 20.2.72.202.A NMAC exemptions do apply to NOI facilities under 20.2.73 NMAC. List 20.2.72.301.D.4 NMAC Auxiliary Equipment for Streamline applications in Table 2-A. The List of Insignificant Activities (for TV) can be found online at <http://www.nmenv.state.nm.us/aqb/forms/InsignificantListTitleV.pdf>. TV sources may elect to enter both TV Insignificant Activities and Part 72 Exemptions on this form.

| Unit Number | Source Description | Manufacturer | Model No. | Max Capacity | List Specific 20.2.72.202 NMAC Exemption (e.g. 20.2.72.202.B.5) | Date of Manufacture /Reconstruction ² | For Each Piece of Equipment, Check One |
|-------------|---------------------------------|--------------|------------|----------------|---|--|---|
| | | | Serial No. | Capacity Units | Insignificant Activity citation (e.g. IA List Item #1.a) | Date of Installation /Construction ² | |
| Varies | Pressure Tanks | Unknown | N/A | Varies | 20.2.72.202.B.5 | Varies | <input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced |
| | | | N/A | gallons | - | Varies | |
| EG-1 | Emergency Diesel RICE Generator | Caterpillar | XQ400 | 563 | 20.2.72.202.B.3 | 2/15/2007 | <input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced |
| | | | FSE00801 | hp | - | > 2/15/07 | |
| FP-1 | South Fire Pump Engine | Unknown | NT-855-F4 | 320 | 20.2.72.202.B.3 | Aug-82 | <input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced |
| | | | 18103844 | hp | - | > Aug-82 | |
| FP-2 | North Fire Pump Engine | Unknown | NT270CBC1 | 320 | 20.2.72.202.B.3 | Manufactured 1980/ Reconstructed 4/17/2007 | <input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced |
| | | | 60528317 | hp | - | >1980 | |
| TK-PAINT | Tank Painting | N/A | N/A | N/A | 20.2.72.202.B.5 | N/A | <input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input checked="" type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced |
| | | | N/A | N/A | - | N/A | |
| TK-BLAST | Abrasive Blasting | N/A | N/A | N/A | 20.2.72.202.B.5 | N/A | <input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input checked="" type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced |
| | | | N/A | N/A | - | N/A | |
| | | | | | | | <input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced |
| | | | | | | | <input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced |
| | | | | | | | <input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced |
| | | | | | | | <input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced |
| | | | | | | | <input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced |
| | | | | | | | <input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced |
| | | | | | | | <input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced |

¹ Insignificant activities exempted due to size or production rate are defined in 20.2.70.300.D.6, 20.2.70.7.Q NMAC, and the NMED/AQB List of Insignificant Activities, dated September 15, 2008. Emissions from these insignificant activities do not need to be reported, unless specifically requested.

² Specify date(s) required to determine regulatory applicability.

Table 2-I: Stack Exit and Fugitive Emission Rates for HAPs and TAPs

In the table below, report the Potential to Emit for each HAP from each regulated emission unit listed in Table 2-A, only if the entire facility emits the HAP at a rate greater than or equal to one (1) ton per year For each such emission unit, HAPs shall be reported to the nearest 0.1 tpy. Each facility-wide Individual HAP total and the facility-wide Total HAPs shall be the sum of all HAP sources calculated to the nearest 0.1 ton per year. Per 20.2.72.403.A.1 NMAC, facilities not exempt [see 20.2.72.402.C NMAC] from TAP permitting shall report each TAP that has an uncontrolled emission rate in excess of its pounds per hour screening level specified in 20.2.72.502 NMAC. TAPs shall be reported using one more significant figure than the number of significant figures shown in the pound per hour threshold corresponding to the substance. Use the HAP nomenclature as it appears in Section 112 (b) of the 1990 CAAA and the TAP nomenclature as it listed in 20.2.72.502 NMAC. Include tank-flashing emissions estimates of HAPs in this table. For each HAP or TAP listed, fill all cells in this table with the emission numbers or a "-" symbol. A "-" symbol indicates that emissions of this pollutant are not expected or the pollutant is emitted in a quantity less than the threshold amounts described above.

| Stack No. | Unit No.(s) | Total HAPs | | Provide Pollutant Name Here <input type="checkbox"/> HAP or <input type="checkbox"/> TAP | | Provide Pollutant Name Here <input type="checkbox"/> HAP or <input type="checkbox"/> TAP | | Provide Pollutant Name Here <input type="checkbox"/> HAP or <input type="checkbox"/> TAP | | Provide Pollutant Name Here <input type="checkbox"/> HAP or <input type="checkbox"/> TAP | | Provide Pollutant Name Here <input type="checkbox"/> HAP or <input type="checkbox"/> TAP | | Provide Pollutant Name Here <input type="checkbox"/> HAP or <input type="checkbox"/> TAP | | Provide Pollutant Name Here <input type="checkbox"/> HAP or <input type="checkbox"/> TAP | | Provide Pollutant Name Here <input type="checkbox"/> HAP or <input type="checkbox"/> TAP | | | |
|----------------|-------------|------------|--------|--|--------|--|--------|--|--------|--|--------|--|--------|--|--------|--|--------|--|--------|-------|--------|
| | | lb/hr | ton/yr | lb/hr | ton/yr | lb/hr | ton/yr | lb/hr | ton/yr | lb/hr | ton/yr | lb/hr | ton/yr | lb/hr | ton/yr | lb/hr | ton/yr | lb/hr | ton/yr | lb/hr | ton/yr |
| | | N/A | 16 | 0.14 | 0.60 | | | | | | | | | | | | | | | | |
| N/A | 18 | 0.12 | 0.52 | | | | | | | | | | | | | | | | | | |
| N/A | 20 | 0.22 | 0.98 | | | | | | | | | | | | | | | | | | |
| N/A | 21 | 0.18 | 0.80 | | | | | | | | | | | | | | | | | | |
| N/A | 22 | 0.12 | 0.53 | | | | | | | | | | | | | | | | | | |
| N/A | 23 | 0.15 | 0.67 | | | | | | | | | | | | | | | | | | |
| N/A | 24 | 0.055 | 0.24 | | | | | | | | | | | | | | | | | | |
| N/A | 25 | 0.19 | 0.84 | | | | | | | | | | | | | | | | | | |
| N/A | 26 | - | - | | | | | | | | | | | | | | | | | | |
| TK-1 | TK-1 | 0.049 | 0.22 | | | | | | | | | | | | | | | | | | |
| TK-2 | TK-2 | 0.049 | 0.22 | | | | | | | | | | | | | | | | | | |
| TR-HOSE | TR-HOSE | 0.037 | 0.079 | | | | | | | | | | | | | | | | | | |
| RC-FUG | RC-FUG | 0.019 | 0.082 | | | | | | | | | | | | | | | | | | |
| RC-LOAD | RC-LOAD | - | - | | | | | | | | | | | | | | | | | | |
| RC-UNCAP | RC-UNCAP | * | 1.0 | | | | | | | | | | | | | | | | | | |
| RC-HOSE | RC-HOSE | * | 0.038 | | | | | | | | | | | | | | | | | | |
| VCU-1 | VCU-1 | 0.56 | 1.2 | | | | | | | | | | | | | | | | | | |
| N/A | Haul-Rd | - | - | | | | | | | | | | | | | | | | | | |
| N/A | TK-SSM | 12.6 | 0.11 | | | | | | | | | | | | | | | | | | |
| N/A | SSM/M | - | - | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| Totals: | | 14.5 | 8.2 | | | | | | | | | | | | | | | | | | |

Table 2-P: Green House Gas Emissions

Applications submitted under 20.2.70, 20.2.72, & 20.2.74 NMAC that are Major for GHGs as determined in Section 22 of this application are required to complete this Table if so directed in Section 22 or are major for GHGs and have an existing GHG BACT. Applicants must report potential emission rates in short tons per year. Include GHG emissions during Startup, Shutdown, and Scheduled Maintenance in this table.

| | | CO ₂ ton/yr | N ₂ O ton/yr | CH ₄ ton/yr | SF ₆ ton/yr | PFC/HFC ton/yr ² | | | | | | | | | | Total GHG Mass Basis ton/yr ⁴ | Total CO ₂ e ton/yr ⁵ |
|---|-------------------|------------------------|-------------------------|------------------------|------------------------|-----------------------------|--|--|--|--|--|--|--|--|--|--|---|
| Unit No. | GWPs ¹ | 1 | 298 | 25 | 22,800 | footnote 3 | | | | | | | | | | | |
| Please see Section 22; The facility is a minor source of GHG emissions. | | | | | | | | | | | | | | | | | |
| | mass GHG | | | | | | | | | | | | | | | | |
| | CO ₂ e | | | | | | | | | | | | | | | | |
| | mass GHG | | | | | | | | | | | | | | | | |
| | CO ₂ e | | | | | | | | | | | | | | | | |
| | mass GHG | | | | | | | | | | | | | | | | |
| | CO ₂ e | | | | | | | | | | | | | | | | |
| | mass GHG | | | | | | | | | | | | | | | | |
| | CO ₂ e | | | | | | | | | | | | | | | | |
| | mass GHG | | | | | | | | | | | | | | | | |
| | CO ₂ e | | | | | | | | | | | | | | | | |
| | mass GHG | | | | | | | | | | | | | | | | |
| | CO ₂ e | | | | | | | | | | | | | | | | |
| | mass GHG | | | | | | | | | | | | | | | | |
| | CO ₂ e | | | | | | | | | | | | | | | | |
| | mass GHG | | | | | | | | | | | | | | | | |
| | CO ₂ e | | | | | | | | | | | | | | | | |
| | mass GHG | | | | | | | | | | | | | | | | |
| | CO ₂ e | | | | | | | | | | | | | | | | |
| | mass GHG | | | | | | | | | | | | | | | | |
| | CO ₂ e | | | | | | | | | | | | | | | | |
| Total | mass GHG | | | | | | | | | | | | | | | | |
| | CO ₂ e | | | | | | | | | | | | | | | | |

¹ GWP (Global Warming Potential): Applicants must use the most current GWPs codified in Table A-1 of 40 CFR part 98. GWPs are subject to change, therefore, applicants need to check 40 CFR 98 to confirm GWP values.

² For HFCs or PFCs describe the specific HFC or PFC compound and use a separate column for each individual compound.

³ For each new compound, enter the appropriate GWP for each HFC or PFC compound from Table A-1 in 40 CFR 98.

⁴ Green house gas emissions on a mass basis is the ton per year green house gas emission before adjustment with its GWP.

⁵ CO₂e means Carbon Dioxide Equivalent and is calculated by multiplying the TPY mass emissions of the green house gas by its GWP.

Section 3

Application Summary

The **Application Summary** shall include a brief description of the facility and its process, the type of permit application, the applicable regulation (i.e. 20.2.72.200.A.X, or 20.2.73 NMAC) under which the application is being submitted, and any air quality permit numbers associated with this site. If this facility is to be collocated with another facility, provide details of the other facility including permit number(s). In case of a revision or modification to a facility, provide the lowest level regulatory citation (i.e. 20.2.72.219.B.1.d NMAC) under which the revision or modification is being requested. Also describe the proposed changes from the original permit, how the proposed modification will effect the facility's operations and emissions, de-bottlenecking impacts, and changes to the facility's major/minor status (both PSD & Title V).

Routine or predictable emissions during Startup, Shutdown, and Maintenance (SSM): Provide an overview of how SSM emissions are accounted for in this application. Refer to "Guidance for Submittal of Startup, Shutdown, Maintenance Emissions in Permit Applications (http://www.nmenv.state.nm.us/aqb/permit/app_form.html) for more detailed instructions on SSM emissions.

The Western Refining Wingate Facility is owned and operated by Western Refining Southwest, Inc. (Western). Western is proposing to modify the Western Refining Wingate Facility NSR Permit (1313-M5R4) through a Significant Revision (20.2.72.219.D NMAC). The following paragraph details the changes being requested in this application.

Currently the facility is authorized as a gas processing plant including loading and unloading liquefied petroleum gas (LPG), such as propane, butane, and natural gasoline to and from pressurized storage tanks to railcars or trucks. With this application, Western is seeking authorization to change the primary function of the facility to a crude oil transloading facility. As a result, the facility is now categorized under the SIC code for petroleum bulk stations and terminals (SIC code 5171) instead of under the category for natural gas liquids (SIC code 1321).

In addition to the crude transloading operations, Western will install a vapor combustion unit and two external floating roof tanks. The modifications and additions of new emission sources will result in emissions more than one (1) pound per hour, Western is submitting this Significant Revision under 20.2.72.219.D.1.a. Also multiple units at the facility will be removed and are noted in the below Table 1. With the removal of the units at the facility, there are significant plant-wide emissions reductions for all criteria pollutants with the exception of an increase in SO₂ and VOC emissions.

The required sections of the current Universal Application form set for significant revisions are included in this permit application. Table 1 below is a list of regulated emission sources. The table describes proposed updates to this facility.

| Table 1. List of Emission Sources | | |
|-----------------------------------|---|---|
| Emission Source | Description | Updates |
| 7 | Vogt Class VV-35; 91 MMBtu/hr Natural Gas Boiler with a manufacture and installation date of 1961 | Propose to remove these units from the facility. Emissions for the facility were updated accordingly. |
| 11 | Fugitive emissions associated with the vapor recovery unit | |
| 12 | Fugitive emissions associated with the Mega Fractionalization Train | |
| 16 | Truck rack system | Emissions from this unit has been previously reviewed and approved. No changes are being requested. |
| 18 | Butamer unit | |
| 19 | NSX-G-108; 207 MMBtu/hr Natural Gas Boiler with a manufacture and installation date of 1998 | Propose to remove this unit from the facility. Emissions for the facility were updated accordingly. |
| 20 | Fugitive emissions associated with propane storage | Emissions from these units have been previously reviewed and approved. |

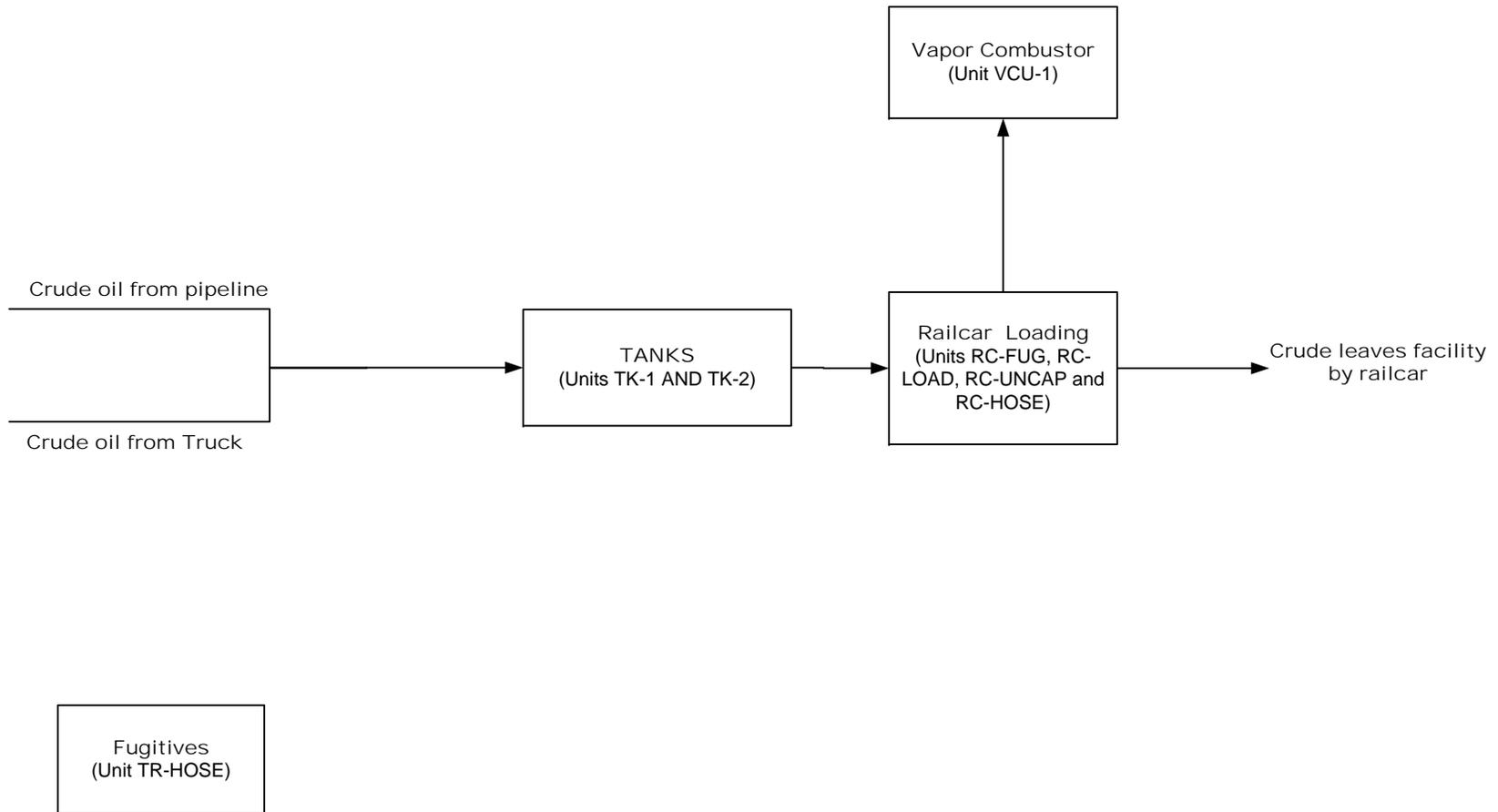
| | | |
|-----------------|--|--|
| 21 | Fugitive emissions associated with isobutane storage | No changes are being requested. |
| 22 | Fugitive emissions associated with n-butane storage | |
| 23 | Fugitive emissions associated with pentane storage | |
| 24 | Fugitive emissions associated with ethyl mercaptan storage and injection system | Emissions from these units have been previously reviewed and approved. No changes are being requested. |
| 25 | Fugitive emissions associated with product pumping system | |
| 26 | Emissions associated with blowdown from loading hoses | |
| 27 | 84 MMBtu/hr Rental Boiler | Propose to remove these units from the facility. Emissions for the facility were updated accordingly. |
| 28 | 84 MMBtu/hr Rental Boiler | |
| 29 | 168 MMBtu/hr Rental Boiler | |
| Haul-Rd | Facility Haul Roads | Haul road emissions from truck traffic for this facility are accounted for with this revision. |
| TR-HOSE | Hose disconnect fugitive emissions from crude truck unloading operations | Emissions from this activity are added to the facility with this revision. |
| RC-FUG | Fugitive emissions associated with crude rail loading | Emissions from the Rail Loading activities are added to the facility with this revision. |
| RC-LOAD | Rail loading emissions captured by the VCU | |
| RC-UNCAP | Rail loading emissions uncaptured by the VCU | |
| RC-HOSE | Hose disconnect fugitive emissions from crude rail loading operations | |
| TK-1 | 120,000 bbl Crude Storage External Floating Roof Tanks | Tank emissions were added to the facility with this revision. |
| TK-2 | | |
| VCU-1 | Vapor Combustion Unit | Emissions from this unit was added to this facility with this revision. |
| SSM/M | Startup, Shutdown, Maintenance and Malfunction emissions | Existing unchanged emissions that were permitted per the Implementation Guidance for Permitting SSM Emissions and Excess Emissions document. |
| TK-DEGAS | Roof Landing Filling Losses, Roof Landing Standing Losses, and Degassing Losses | Standing losses, Filling losses, & Degassing losses associated with the tanks were added to the facility with this revision |
| TK-BLAST | Abrasive Blasting Events | These will be exempt activities under 20.2.72.202.B.5. Calculations for these events are provided in Section 6 of this application. |
| TK-PAINT | Painting Events | |
| FP-1 | South Fire Pump Engine with a manufacture and construction date of 09/1982 | No changes are being requested with this revision. These units do not have permitted emission limits as they are considered exempt under 20.2.72.202.B.3. Units FP-1, FP-2, and EG-1 are subject to the requirements under 40 CFR 63, Subpart ZZZZ. Unit FP-2 is also subject to the requirements under NSPS JJJJ. |
| FP-2 | North Fire Pump Engine with a manufacture date of 1980 and reconstruction date of 04/2007. | |
| EG-1 | Emergency Diesel Caterpillar RICE Generator | |

Section 4

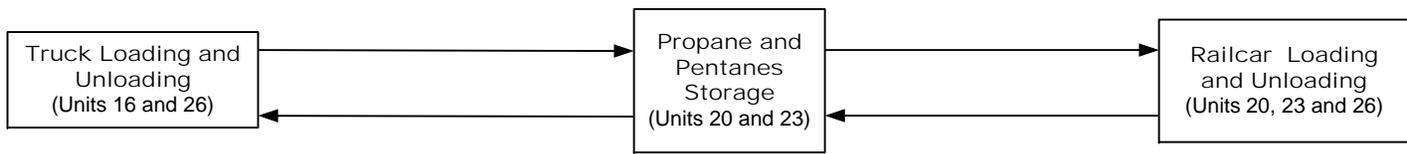
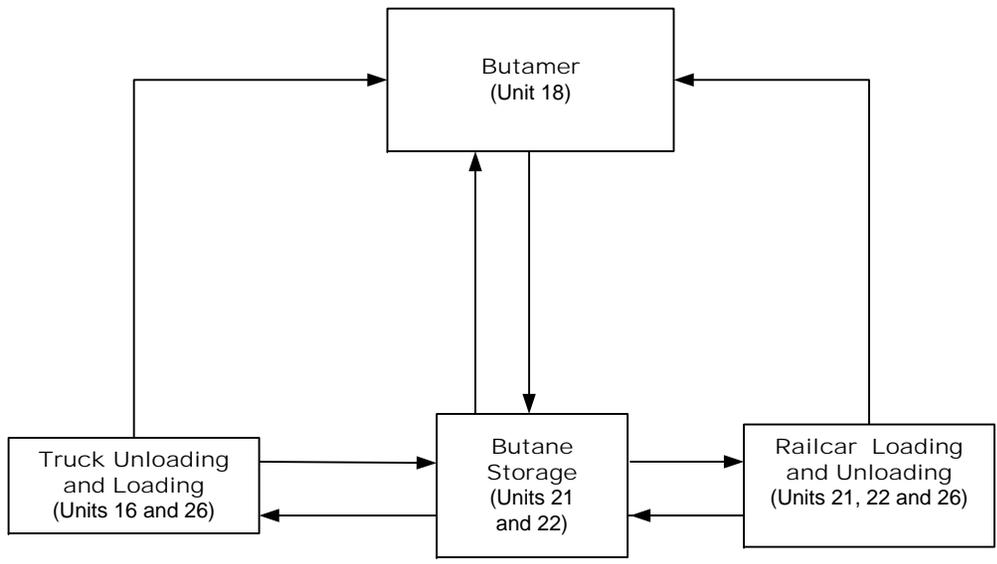
Process Flow Sheet

A **process flow sheet** and/or block diagram indicating the individual equipment, all emission points and types of control applied to those points. The unit numbering system should be consistent throughout this application.

A process flow sheet is attached.



Process Flow Diagram- Crude Operation
Western Refining Wingate Facility



Process Flow Diagram
Western Wingate Facility

Section 5

Plot Plan Drawn To Scale

A **plot plan drawn to scale** showing emissions points, roads, structures, tanks, and fences of property owned, leased, or under direct control of the applicant. This plot plan must clearly designate the restricted area as defined in UA1, Section 1-D.12. The unit numbering system should be consistent throughout this application.

A plot plan is attached.

Section 6

All Calculations

Show all calculations used to determine both the hourly and annual controlled and uncontrolled emission rates. All calculations shall be performed keeping a minimum of three significant figures. Document the source of each emission factor used (if an emission rate is carried forward and not revised, then a statement to that effect is required). If identical units are being permitted and will be subject to the same operating conditions, submit calculations for only one unit and a note specifying what other units to which the calculations apply. All formulas and calculations used to calculate emissions must be submitted. The "Calculations" tab in the UA2 has been provided to allow calculations to be linked to the emissions tables. Add additional "Calc" tabs as needed. If the UA2 or other spread sheets are used, all calculation spread sheet(s) shall be submitted electronically in Microsoft Excel compatible format so that formulas and input values can be checked. Format all spread sheets and calculations such that the reviewer can follow the logic and verify the input values. Define all variables. If calculation spread sheets are not used, provide the original formulas with defined variables. Additionally, provide subsequent formulas showing the input values for each variable in the formula. All calculations, including those calculations are imbedded in the Calc tab of the UA2 portion of the application, the printed Calc tab(s), should be submitted under this section.

Tank Flashing Calculations: The information provided to the AQB shall include a discussion of the method used to estimate tank-flashing emissions, relative thresholds (i.e., NOI, permit, or major source (NSPS, PSD or Title V)), accuracy of the model, the input and output from simulation models and software, all calculations, documentation of any assumptions used, descriptions of sampling methods and conditions, copies of any lab sample analysis. If Hysis is used, all relevant input parameters shall be reported, including separator pressure, gas throughput, and all other relevant parameters necessary for flashing calculation.

SSM Calculations: It is the applicant's responsibility to provide an estimate of SSM emissions or to provide justification for not doing so. In this Section, provide emissions calculations for Startup, Shutdown, and Routine Maintenance (SSM) emissions listed in the Section 2 SSM and/or Section 22 GHG Tables and the rationale for why the others are reported as zero (or left blank in the SSM/GHG Tables). Refer to "Guidance for Submittal of Startup, Shutdown, Maintenance Emissions in Permit Applications (http://www.nmenv.state.nm.us/aqb/permit/app_form.html) for more detailed instructions on calculating SSM emissions. If SSM emissions are greater than those reported in the Section 2, Requested Allowables Table, modeling may be required to ensure compliance with the standards whether the application is NSR or Title V. Refer to the Modeling Section of this application for more guidance on modeling requirements.

Glycol Dehydrator Calculations: The information provided to the AQB shall include the manufacturer's maximum design recirculation rate for the glycol pump. If GRI-Glycalc is used, the full input summary report shall be included as well as a copy of the gas analysis that was used.

Road Calculations: Calculate fugitive particulate emissions and enter haul road fugitives in Tables 2-A, 2-D and 2-E for:

1. If you transport raw material, process material and/or product into or out of or within the facility and have PER emissions greater than 0.5 tpy.
2. If you transport raw material, process material and/or product into or out of the facility more frequently than one round trip per day.

Significant Figures:

A. All emissions standards are deemed to have at least two significant figures, but not more than three significant figures.

B. At least 5 significant figures shall be retained in all intermediate calculations.

C. In calculating emissions to determine compliance with an emission standard, the following rounding off procedures shall be used:

- (1) If the first digit to be discarded is less than the number 5, the last digit retained shall not be changed;
- (2) If the first digit discarded is greater than the number 5, or if it is the number 5 followed by at least one digit other than the number zero, the last figure retained shall be increased by one unit; **and**
- (3) If the first digit discarded is exactly the number 5, followed only by zeros, the last digit retained shall be rounded upward if it is an odd number, but no adjustment shall be made if it is an even number.
- (4) The final result of the calculation shall be expressed in the units of the standard.

Control Devices: In accordance with 20.2.72.203.A(3) and (8) NMAC, 20.2.70.300.D(5)(b) and (e) NMAC, and 20.2.73.200.B(7) NMAC, the permittee shall report all control devices and list each pollutant controlled by the control device

regardless if the applicant takes credit for the reduction in emissions. The applicant can indicate in this section of the application if they chose to not take credit for the reduction in emission rates. For notices of intent submitted under 20.2.73 NMAC, only uncontrolled emission rates can be considered to determine applicability unless the state or federal Acts require the control. This information is necessary to determine if federally enforceable conditions are necessary for the control device, and/or if the control device produces its own regulated pollutants or increases emission rates of other pollutants.

Existing Unchanged Units:

The following units are unchanged with this application and have been previously reviewed and approved:

- 16 – Truck Rack System
- 18 – Butamer
- 20 – Propane Storage and Rail Loading
- 21 – Isobutane Storage and Rail Loading
- 22 – n-Butane Storage and Rail Loading
- 23 – Pentanes Storage and Rail Loading
- 24 – Ethyl Mercaptan Storage & Injection System
- 25 – Product Pumping System
- 26 – Blowdown From Loading Hose

The above units are all fugitive sources and based on Emission Factors from the EPA Protocol for Equipment Leak Emission Estimates except for the blowdown from loading hose emissions.

Crude Oil Storage Tanks emissions (units TK-1, TK-2, TK-DEGAS Emissions, TK-BLAST, and TK-PAINT)

The tank emission calculations for this facility were completed using the calculation methodology of a similar Western facility. Working and breathing emissions from the storage tanks were calculated using TANKS 4.0.9d. The TANKS 4.0.9d emission report is included in Section 7. All input parameters and output data obtained from the TANKS software are provided in this section. Working and breathing losses were calculated assuming that the maximum daily throughput at the rail rack is handled through each individual tank. This approach was used to estimate tank emissions and tank turnovers to ensure a conservative estimate of potential emissions. HAPs were calculated using TANKS 4.0.9d with the default HAP speciation for crude oil. H₂S emissions were based on the maximum expected H₂S concentration of the crude oil received at the facility.

Landing loss emissions consist of two parts: Standing-loss emissions and refilling-loss emissions. In addition to tank roof landing, tank degassing may also occur. For the purposes of the calculations, it was conservatively assumed that there will be one landing per year. Equations used to calculate the aforementioned emissions are based on a drain dry design of the tank and are included in Section 7.

Total tank hourly landing emissions were calculated as the maximum of landing loss, degassing loss, and refilling loss. Total tank annual landing emissions were calculated as the sum of standing loss, degassing loss, and refilling loss.

Tank abrasive blasting emissions were based on US EPA AP-42, Chapter 13.2.6, Abrasive blasting.

Tank painting emissions were based on TCEQ guidance.

Truck Unloading emissions (unit TR-HOSE)

The hourly and daily throughput of the crude oil unloading operation at the truck rack is provided in this section. H₂S emissions were calculated using maximum annual throughput and maximum expected H₂S concentration of the crude oil received at the facility.

Fugitive VOC emissions are generated when the truck unloading operation is completed and the hose is disconnected from the truck. Fugitive emissions from hose disconnection are calculated based on the physical parameters of the hose and the characteristics of material, as well as the pressure used to push the material out of the truck. Hourly hose disconnection fugitive VOC emissions from the unloading of each material are calculated based on VOC emissions per truck and the number of trucks unloaded per hour. Annual hose disconnection fugitive VOC emissions from the unloading of each material are calculated based on VOC emissions per truck and the number of trucks unloaded per year. These fugitive emissions are represented under unit TR-HOSE and were estimated using the throughput for crude truck unloading and the following assumptions:

- The hose will be capped as soon as it is disconnected from the truck
- All of the vapor from the soft hose is released (worst case emissions)
- All of the vapor from the pipe above atmospheric pressure (14.7 psia) is released.

Rail Loading emissions (units RC-LOAD, RC-UNCAP, RC-HOSE, and RC-FUG)

Loading emissions will be controlled by the VCU. The annual uncontrolled rail loading emissions (unit RC-LOAD) sent to the VCU were estimated using AP-42 Section 5.2, Equation 1 and the maximum annual throughput rate. All input parameters for the rail loading emission calculations are included in this section. Since the vapor collection efficiency was assumed to be 98.7%, unit RC-UNCAP was added to the facility to account for the uncaptured rail loading emissions. HAP emissions were estimated by multiplying the HAP output from TANKS 4.0.9d by a ratio of the loading VOC losses to working and breathing emissions.

Fugitive emissions from the railcar loading of crude oil (unit RC-FUG) were estimated using factors from Table 2-4, Oil & Gas Production Operations Average Emission Factors from the EPA Protocol for Equipment Leak Emission Estimates.

There will also be fugitive emissions from disconnecting the hoses connected to the rail car following each transfer. These fugitive emissions are represented under unit RC-HOSE and were estimated using the throughput for crude railcar loading and the following assumptions:

- The hose will be capped as soon as it is disconnected from the railcar
- All of the vapor from the soft hose is released (worst case emissions)
- All of the vapor from the pipe above atmospheric pressure (14.7 psia) is released.

All H₂S emissions associated with rail car crude loading were calculated using each unit's respective throughput and maximum expected H₂S concentration of the crude oil received at the facility.

Vapor Combustion Unit emissions (unit VCU-1)

Emissions from railcar loading will be sent to the VCU. Pilot emissions for NO_x and CO were based on TNRCC RG-109 emission factors. Hourly pilot emissions were calculated assuming a maximum VCU flow rate.

The VOC, NO_x, and CO emission calculations for the VCU loading operations were carried out using manufacturer guaranteed emission factors. PM emissions were calculated using emission factors from AP-42, Table 1.4-2. H₂S emissions were based on the maximum expected H₂S concentration of the crude oil received at the facility. For SO₂ emissions, a 100% conversion rate from H₂S to SO₂ was assumed.

Haul road emissions (unit Haul-Rd)

Paved haul road emissions were calculated using Equation 1, Equation 2, Table 13.2.1-2, and Figure 13.2.1-1 of AP-42, Section 13.2.1.

Startup, Shutdown, Maintenance, & Malfunction emissions (unit SSM/M)

Emissions for SSM/M events were unchanged with this revision. The existing 10 tpy limit allowed for SSM/Malfunction per paragraph 2.e) of "Implementation Guidance for Permitting SSM Emissions and Excess Emissions" document issued 10 January 2011 was carried forward from the previous permit application.

Maximum Crude Operation Uncontrolled Emissions

| Unit | NOx | | CO | | VOCs | | SOx | | PM ₃₀ | | PM ₁₀ | | PM _{2.5} | | H ₂ S | |
|------------------------|-------|-----|-------|-----|----------------|---------------|-------|-----|------------------|------------|------------------|-------------|-------------------|--------------|------------------|-------------|
| | lb/hr | tpy | lb/hr | tpy | lb/hr | tpy | lb/hr | tpy | lb/hr | tpy | lb/hr | tpy | lb/hr | tpy | lb/hr | tpy |
| 16 | - | - | - | - | 3.3 | 14.5 | - | - | - | - | - | - | - | - | - | - |
| 18 | - | - | - | - | 2.9 | 12.5 | - | - | - | - | - | - | - | - | - | - |
| 20 | - | - | - | - | 5.4 | 23.6 | - | - | - | - | - | - | - | - | - | - |
| 21 | - | - | - | - | 4.4 | 19.3 | - | - | - | - | - | - | - | - | - | - |
| 22 | - | - | - | - | 2.9 | 12.8 | - | - | - | - | - | - | - | - | - | - |
| 23 | - | - | - | - | 3.7 | 16.3 | - | - | - | - | - | - | - | - | - | - |
| 24 | - | - | - | - | 1.3 | 5.8 | - | - | - | - | - | - | - | - | - | - |
| 25 | - | - | - | - | 4.6 | 20.4 | - | - | - | - | - | - | - | - | - | - |
| 26 | - | - | - | - | 0.26 | 1.1 | - | - | - | - | - | - | - | - | - | - |
| TK-1 ¹ | - | - | - | - | 1.2 | 4.7 | - | - | - | - | - | - | - | - | 3.2E-04 | 1.4E-03 |
| TK-2 ¹ | - | - | - | - | 1.2 | 4.7 | - | - | - | - | - | - | - | - | 3.2E-04 | 1.4E-03 |
| TR-HOSE | - | - | - | - | 0.81 | 1.7 | - | - | - | - | - | - | - | - | 2.4E-04 | 5.1E-04 |
| RC-FUG | - | - | - | - | 1.3 | 5.9 | - | - | - | - | - | - | - | - | - | - |
| RC-LOAD | - | - | - | - | 807.5 | 1701.3 | - | - | - | - | - | - | - | - | 2.4E-01 | 5.1E-01 |
| RC-UNCAP | - | - | - | - | 10.6 | 22.4 | - | - | - | - | - | - | - | - | 3.2E-03 | 6.7E-03 |
| RC-HOSE | - | - | - | - | 0.35 | 0.82 | - | - | - | - | - | - | - | - | 1.1E-04 | 2.5E-04 |
| VCU-1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Haul-Rd | - | - | - | - | - | - | - | - | 0.52 | 1.0 | 0.10 | 0.21 | 0.026 | 0.051 | - | - |
| TK-DEGAS ² | - | - | - | - | 271.5 | 2.4 | - | - | - | - | - | - | - | - | 8.1E-02 | 7.2E-04 |
| SSM/M | - | - | - | - | - | 10.0 | - | - | - | - | - | - | - | - | - | - |
| Total Emissions | - | - | - | - | 1,123.4 | 1880.1 | - | - | 0.52 | 1.0 | 0.10 | 0.21 | 0.026 | 0.051 | 0.33 | 0.52 |

Maximum Crude Operation Controlled Emissions

| Unit | NOx | | CO | | VOCs | | SOx | | PM ₃₀ | | PM ₁₀ | | PM _{2.5} | | H ₂ S | | Total HAPs | |
|------------------------|------------|-------------|-------------|-------------|--------------|--------------|-------------|-------------|------------------|------------|------------------|-------------|-------------------|-------------|------------------|----------------|-------------|------------|
| | lb/hr | tpy | lb/hr | tpy | lb/hr | tpy | lb/hr | tpy | lb/hr | tpy | lb/hr | tpy | lb/hr | tpy | lb/hr | tpy | lb/hr | tpy |
| 16 | - | - | - | - | 3.3 | 14.5 | - | - | - | - | - | - | - | - | - | - | 0.14 | 0.60 |
| 18 | - | - | - | - | 2.9 | 12.5 | - | - | - | - | - | - | - | - | - | - | 0.12 | 0.52 |
| 20 | - | - | - | - | 5.4 | 23.6 | - | - | - | - | - | - | - | - | - | - | 0.22 | 0.98 |
| 21 | - | - | - | - | 4.4 | 19.3 | - | - | - | - | - | - | - | - | - | - | 0.18 | 0.80 |
| 22 | - | - | - | - | 2.9 | 12.8 | - | - | - | - | - | - | - | - | - | - | 0.12 | 0.53 |
| 23 | - | - | - | - | 3.7 | 16.3 | - | - | - | - | - | - | - | - | - | - | 0.15 | 0.67 |
| 24 | - | - | - | - | 1.3 | 5.8 | - | - | - | - | - | - | - | - | - | - | 0.055 | 0.24 |
| 25 | - | - | - | - | 4.6 | 20.4 | - | - | - | - | - | - | - | - | - | - | 0.19 | 0.84 |
| 26 | - | - | - | - | 0.26 | 1.1 | - | - | - | - | - | - | - | - | - | - | - | - |
| TK-1 ¹ | - | - | - | - | 1.2 | 4.7 | - | - | - | - | - | - | - | - | 3.2E-04 | 1.4E-03 | 0.049 | 0.22 |
| TK-2 ¹ | - | - | - | - | 1.2 | 4.7 | - | - | - | - | - | - | - | - | 3.2E-04 | 1.4E-03 | 0.049 | 0.22 |
| TR-HOSE | - | - | - | - | 0.81 | 1.7 | - | - | - | - | - | - | - | - | 2.4E-04 | 5.1E-04 | 0.037 | 0.079 |
| RC-FUG | - | - | - | - | 0.40 | 1.8 | - | - | - | - | - | - | - | - | - | - | 0.019 | 0.082 |
| RC-LOAD | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| RC-UNCAP | - | - | - | - | 10.6 | 22.4 | - | - | - | - | - | - | - | - | 3.2E-03 | 6.7E-03 | * | 1.0 |
| RC-HOSE | - | - | - | - | 0.35 | 0.82 | - | - | - | - | - | - | - | - | 1.1E-04 | 2.5E-04 | * | 0.038 |
| VCU-1 | 4.9 | 10.3 | 12.2 | 25.7 | 12.1 | 25.6 | 0.34 | 0.72 | 0.15 | 0.31 | 0.15 | 0.31 | 0.15 | 0.31 | 3.6E-03 | 7.7E-03 | 0.56 | 1.2 |
| Haul-Rd | - | - | - | - | - | - | - | - | 0.52 | 1.0 | 0.10 | 0.21 | 0.026 | 0.051 | - | - | - | - |
| TK-DEGAS ² | - | - | - | - | 271.5 | 2.4 | - | - | - | - | - | - | - | - | 8.1E-02 | 7.2E-04 | 12.6 | 0.11 |
| SSM/M | - | - | - | - | - | 10.0 | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Emissions | 4.9 | 10.3 | 12.2 | 25.7 | 327.1 | 200.4 | 0.34 | 0.72 | 0.67 | 1.3 | 0.25 | 0.52 | 0.17 | 0.36 | 0.089 | 1.9E-02 | 14.5 | 8.2 |

¹ The annual VOC emissions for all crude oil tanks are calculated based on maximum annual throughput. actual throughput of individual tanks may vary.

² Total hourly emissions for all crude oil tanks assumes that only one tank will degas at any hour and minus one tank normal emissions

Rail Loading Operation

| | |
|--|------------|
| Number of existing loading arms: | 42 |
| Hourly average railcar capacity (bbl/railcar): | 660 |
| Annual average railcar capacity (bbl/railcar): | 600 |
| No. of trains per loading session | 21 |
| Loading time from tank (hr) | 3 |
| Loading time per session (hr) | 4 |
| Max hourly throughput (bbl/hr): | 3465 |
| Annual average daily throughput (bbl/day): | 40,000 |
| Annual operation days | 365 |
| Max annual throughput (bbl/yr): | 14,600,000 |
| Number of railcars per year: | 24,333 |
| Rail loading arm diameter (in): | 4.0 |
| Rail soft hose length (ft): | 10.0 |
| Loading arm pipe length (ft): | 10.0 |
| Loading arm overpressure (psig): | 1.0 |

Truck Unloading Operation

| | |
|---|-----------|
| Annual average daily throughput (bbl/day): | 25,000 |
| Annual throughput (bbl/yr): | 9,125,000 |
| Truck capacity for hourly emissions(bbl/truck): | 180 |
| Average capacity for annual emissions (bbl/truck) | 160 |
| Number of trucks per year (trucks/yr): | 57031 |
| Number of Truck Bays: | 6 |
| Maximum No. of truck unloading /hr/bay (Truck/hr) | 2.0 |
| Maximum No. of truck unloading per hr (Truck/hr) | 12 |
| Maximum hourly truck throughput (bbl/hr): | 2160 |
| Truck loading arm diameter (in): | 4.0 |
| Truck soft hose length (ft): | 10.0 |
| Loading arm pipe length (ft): | 10.0 |
| Loading arm overpressure (psig): | 1.0 |
| Empty weight of truck (tons/truck): | 16.0 |
| Loaded weight of the truck (tons/truck): | 24.0 |

Railrack Fugitive Count

| | |
|----------------------|------|
| Valves | 981 |
| Flanges | 738 |
| Threaded Connections | 5750 |

| TANKS 4.0.9d Weight Percent HAPs | Weight % |
|----------------------------------|----------|
| Benzene | 0.34% |
| Toluene | 0.76% |
| Ethylbenzene | 0.14% |
| Xylene (-m) | 0.62% |
| n-Hexane | 1.76% |
| Cyclohexane | 0.94% |
| 2,2,4-Trimethylpentane | 0.03% |
| Naphthalene | 0.05% |
| Total HAPS | 4.64% |

| | |
|----------------------------------|-----|
| H ₂ S in crude (ppmw) | 300 |
|----------------------------------|-----|

Crude Storage Tanks - Parameters

| | |
|---|-----------------------------|
| Tank Identification | |
| Tank No. | TK-1, TK-2 |
| Tank Parameters | |
| Tank Type | External Floating Roof Tank |
| Tank Bottom Design | Drain Dry |
| Number of EFR Tanks | 2 |
| Tank Throughput (bbl/day/tank) | 40,000 |
| Tank Throughput (gal/yr/tank) | 613,200,000 |
| Material Stored | Crude |
| Diameter (ft) | 134 |
| Height (ft) | 48 |
| Tank Volume (gal) | 5,063,753 |
| Internal Shell Condition | Light Rust |
| Paint Color/Shade | White/White |
| Paint Condition | Good |
| Pump Rate (bbl/hr) | 4620 |
| Roof Characteristics | |
| Roof Type | Pontoon |
| Roof Fitting Category | Detail |
| Self Supporting Roof? | - |
| Number of Columns / Effective Column Diameter: | - |
| Tank Construction and Seal System | |
| Tank Construction | Welded |
| Primary Seal | Mechanical Shoe |
| Secondary Seal | Rim-Mounted |
| Stored Material Properties | |
| Liquid Temperature (°F) | 51.0 |
| Vapor Pressure (psia) at Liquid Surface Temperature | 6.4 |
| Liquid Molecular Weight (lb/lb-mole) | 163 |
| Liquid Density (lb/gal @ 60 deg F) | 6.4 |
| Vapor Molecular Weight (lb/lb-mole) | 60 |

Crude Storage Tanks - Fittings Details

| Fitting Type | Status | EFR Fittings |
|--------------------------------------|--|--------------|
| Access Hatch (24-in. Diam.) | Bolted Cover, Gasketed | 2 |
| Gauge-Hatch/Sample Well (8-in. Diam) | Weighted Mech. Actuation, Gask. | 0 |
| Roof Drain (3-in. Diameter) | 90% closed | 1 |
| Roof Leg (3-in. Diameter) | Adjustable, Pontoon Area, Sock | 25 |
| Roof Leg (3-in. Diameter) | Adjustable, Center Area, Sock | 33 |
| Slotted Guide - Pole/Well | Gasketed Sliding Cover w/ Pole, Sleeve, Wiper | 2 |
| Vacuum Breaker (10-in Diam) | Weighted Mech. Actuation, Gask. | 2 |

Annual VOC and HAP emissions per Tank (TK-1, TK-2)

| Annual Tanks run | Emissions ¹ (lb/yr) | Emissions ¹ (tpy) |
|----------------------------|-----------------------------------|---------------------------------|
| Total VOC Emissions | 9310.7 | 4.7 |
| Benzene | 31.8 | 0.016 |
| Toluene | 71.0 | 0.035 |
| Ethylbenzene | 13.1 | 0.0066 |
| Xylene (-m) | 57.8 | 0.029 |
| n-Hexane | 163.7 | 0.082 |
| Cyclohexane | 87.6 | 0.044 |
| 2,2,4-Trimethylpentane | 2.5 | 0.00124 |
| Naphthalene | 4.3 | 0.0022 |
| Total HAPs | 431.8 | 0.22 |

Hourly VOC emissions per Tank (TK-1, TK-2)

| Tank ID ¹ | Annual Withdrawal Emissions ² (lb/yr) | VOC Emissions (lb/hr) |
|----------------------|---|--------------------------|
| TK-1, TK-2 | 3914.6 | 1.24 |

¹ There are two 120,000 bbl crude storage tanks at the Wingate facility. The above emissions listed are per tank (TK-1, TK-2)

² TANKS 4.0.9d total VOC emissions for Annual Withdrawal Losses.

Annual H₂S emissions per Tank (TK-1, TK-2)

| | |
|---|---------|
| H ₂ S Concentration by weight (ppmw) | 300 |
| Total H ₂ S emissions per tank (tpy) | 1.4E-03 |
| Total H ₂ S emissions per tank (lb/hr) | 3.2E-04 |

Crude Storage Tanks - Degassing Parameters

| | |
|---|-----------------------------|
| Tank Identification | |
| Tank Identification | TK-1 through TK-2 |
| Tank Parameters | |
| Tank Type | External Floating Roof Tank |
| Tank Bottom Design | Drain Dry |
| Material Stored | Crude |
| Diameter (ft) | 134 |
| Maximum Filling Rate (gal/hr) | 194,040 |
| Stored Material Properties | |
| Vapor Pressure (psia) at Liquid Surface Temperature | 6.4 |
| Liquid Molecular Weight (lb/lb-mole) | 163 |
| Vapor Molecular Weight (lb/lb-mole) | 60 |
| Liquid Density (lb/gal @ 60 deg F) | 6.4 |
| Liquid Temperature (°F) | 50.98 |
| Vapor Space Calculations | |
| Height of Vapor Space ¹ (ft) | 7.0 |
| Vapor Space Volume (ft ³) | 98,718 |

¹ Height of vapor space is based on tank leg height.

The total loss from floating roof tanks during a roof landing is the sum of the standing losses and filling losses. This relationship may be written in the form of an equation:

$$L_{TL} = L_{SL} + L_{FL}$$

Where

- | | |
|-------------------------------------|-------------------------------------|
| L_{TL} (lb per landing episode) = | total losses during roof landing |
| L_{SL} (lb per landing episode) = | standing losses during roof landing |
| L_{FL} (lb per landing episode) = | filling losses during roof landing |

Crude Storage Tanks - Roof Landing - Standing Loss ¹

| | |
|--|-------------------|
| Tank Identification | |
| Tank Identification | TK-1 through TK-2 |
| Tank Bottom Design | Drain Dry |
| Standing Loss Parameters | |
| Standing Loss ² (lb/landing) | 22.57 |
| Annual Landings ³ (landings/yr) | 1 |
| Loss Duration ⁴ (hr/landing) | 24 |
| Standing Loss Emissions per tank | |
| Maximum Hourly VOC Emissions (lb/hr) | 0.94 |
| Annual VOC Emissions (tpy) | 0.011 |

¹ Tank standing losses per U.S. EPA AP-42 Section 7.1 (Organic Liquid Storage Tanks), November 2006, Section 7.1.3.2.2 (Roof Landings).

² Standing Loss is the minimum of the following equations:

$$L_C = 0.042 C_s W_l (Area)$$

where

$$L_{sl, max} = 0.60 \left(\frac{P V_v}{R T} \right) M_v$$

C_s = Clingage factor (0.0060 bbl/1,000 sq ft for crude oil and light rust)

W_l = Density of liquid (lb/gal)

P = True vapor pressure of liquid inside tank (psia)

V_v = Volume of vapor space (ft³)

R = Ideal gas constant (10.731 psia ft³ / lb-mol R)

T = Average temperature of vapor and liquid below floating roof (deg R)

M_v = Stock vapor molecular weight (lb/lb-mol)

³ Annual landings conservatively assumed to occur once per year for cleaning

⁴ The tank will be degassed or the roof floated within 24 hours of landing.

Sample Calculations:

Standing Loss (lb/landing):

| | | | | |
|-----|---|---|---|----------|
| MIN | { | $\frac{0.042 \text{ gal}}{\text{bbl}} \times 0.006 \times \frac{6.35 \text{ lb}}{\text{gal}} \times \pi \times \frac{(134 \text{ ft})^2}{4}$ | = | 22.57 lb |
| | | $\frac{0.6 \times 6.4 \text{ psia} \times 60 \text{ lb}}{\text{lb-mol} \times \frac{98,718 \text{ ft}^3}{10.73 \text{ psia ft}^3} \times \frac{1 \text{ lb-mol-deg R}}{50.98 + 460 \text{ deg R}}}$ | = | 4,151 lb |

Max Hourly VOC Emissions (lb/hr):

| | | |
|---|---|-------------------------------------|
| $\frac{22.57 \text{ lb}}{\text{landing}}$ | = | $\frac{0.94 \text{ lb}}{\text{hr}}$ |
| $\frac{\text{landing}}{24 \text{ hour}}$ | | |

Annual VOC Emissions (tpy):

| | | |
|---|---|--|
| $\frac{22.57 \text{ lb}}{\text{landing}}$ | = | $\frac{0.01 \text{ ton}}{\text{year}}$ |
| $\frac{\text{landing}}{\text{year}}$ | | $\frac{\text{ton}}{2,000 \text{ lb}}$ |

Crude Storage Tanks - Roof Landing - Filling Loss Emissions ¹

| | |
|--|-------------------|
| Tank Identification | |
| Tank Identification | TK-1 through TK-2 |
| Tank Bottom Design | Drain Dry |
| Standing Loss Parameters | |
| Refilling Loss ² (lb/landing) | 1,037.77 |
| Maximum Filling Rate (gal/hr) | 194,040 |
| Minimum Filling Time (hr) | 3.81 |
| Annual Landings (landings/yr) | 4 |
| Filling Loss Emissions per tank | |
| Maximum Hourly VOC Emissions (lb/hr) | 272.71 |
| Annual VOC Emissions (tpy) | 2.08 |

¹ Tank filling losses per U.S. EPA AP-42 Section 7.1 (Organic Liquid Storage Tanks), November 2006, Section 7.1.3.2.2 (Roof Landings).

² Refilling loss is determined using the following equation:

$$L_{FL} = \left(\frac{PV_v}{RT} \right) M_v S$$

where

S = Filling saturation factor (0.15 for a drain-dry tank).

Sample Calculations:

| | |
|-----------------------------------|--|
| Filling Loss (lb/landing): | $\frac{0.15}{1} \times \frac{6.4 \text{ psia}}{1} \times \frac{60 \text{ lb}}{1 \text{ lb-mol}} \times \frac{98,718 \text{ ft}^3}{50.98 + 460 \text{ deg R}} \times \frac{1}{10.73 \text{ psia ft}^3} \times \frac{1 \text{ lb-mol-deg R}}{1} = \frac{1037.77 \text{ lb}}{\text{landing}}$ |
| Max Hourly VOC Emissions (lb/hr): | $\frac{1037.77 \text{ lb}}{\text{landing}} \times \frac{1}{3.81 \text{ hrs}} = \frac{272.71 \text{ lb}}{\text{hr}}$ |
| Annual VOC Emissions (tpy): | $\frac{1037.77 \text{ lb}}{\text{landing}} \times \frac{1 \text{ landing}}{\text{year}} \times \frac{1 \text{ ton}}{2,000 \text{ lb}} = 2.08 \text{ tpy}$ |

Crude Storage Tanks - Degassing Losses¹

| | |
|--|-------------------|
| Tank Identification | |
| Tank Identification | TK-1 through TK-2 |
| Tank Bottom Design | Drain Dry |
| Degassing Loss Parameters | |
| V, Vapor Space Volume (ft ³) | 98,718 |
| P, Partial Pressure of VOC (psia) ¹ | 0.15 |
| Temperature (R) ² | 511 |
| Vapor Molecular Weight (lb/lb-mole) | 60 |
| Emissions per degassing session (lb) | 159 |
| Number of degassing sessions per year | 4 |
| Degassing time (hr) ³ | 24 |
| Degassing Emissions per tank | |
| Maximum Hourly VOC Emissions (lb/hr) | 6.6 |
| Annual VOC Emissions (tpy) | 0.318 |

¹ The Ideal Gas Law is used to calculate degassing emissions

The vapor will be vented to the atmosphere without any controls only when the VOC concentration is less than 10,000 ppmv, which is converted to pressure (psia) assuming a total tank pressure of 14.7 psia where,

$$Emissions = \left(\frac{PV}{RT} \right) \times M.W.$$

where,
 P = VOC partial pressure, psia.
 V = Volume of vapor space, ft³
 R = Ideal gas constant
 10.731 psia-ft³/lb-mol-R
 T = Average temperature, deg R
 511
 M.W. = Vapor molecular weight, lb/lb-mol

² The temperature of 95 deg F is used as a conservative measure.

³ It is assumed that the time required to degas the vapor space is 24 hours.

Sample Calculations:

| | | | | | | | |
|--------------------------------|-----------|------------------------|--------------|----------------------------|-----------|---|-----------|
| Degassing Loss (lb/degassing): | 0.15 psia | 98,718 ft ³ | 1 | 1 lb-mol-deg R | 60 lb | | 158.8 lb |
| | | | 510.98 deg R | 10.73 psia ft ³ | lb-mol | = | degassing |
| Annual VOC Emissions (tpy) | 158.79 lb | 4 degassing sessions | 1 ton | = | 0.318 tpy | | |
| | degassing | year | 2,000 lb | | | | |

Crude Storage Tanks - Degassing Emissions

| | |
|---|---------|
| Total VOC emissions (lb/hr) | 271.5 |
| Total VOC emissions (tpy) | 2.4 |
| H ₂ S Concentration (ppm) | 300.0 |
| Hourly H ₂ S emissions during SSM events (lb/hr) | 8.1E-02 |
| Annual H ₂ S emissions during SSM events (tpy) | 7.2E-04 |

Rail Loading Racks for Crude Loading
Emission Source RC-FUG

| Component Type | Stream Type | Total Number of Components | Emission Factors ¹ (lb/hr-Component) | Uncontrolled VOC Emissions | | Uncontrolled HAP Emissions | | Controlled VOC Emissions ² | | Controlled HAP Emissions | |
|---------------------------------|-------------|----------------------------|--|----------------------------|------------|----------------------------|-------------|---------------------------------------|------------|--------------------------|--------------|
| | | | | (lb/hr) | (tpy) | (lb/hr) | (tpy) | (lb/hr) | (tpy) | (lb/hr) | (tpy) |
| Valves | Light Oil | 89 | 0.0055 | 0.5 | 2.1 | 0.023 | 0.100 | 0.15 | 0.6 | 0.0068 | 0.030 |
| Flanges | Light Oil | 18 | 0.0002 | 0.00 | 0.0 | 0.0002 | 0.0009 | 0.0013 | 0.006 | 0.0001 | 0.00027 |
| Threaded Connections | Light Oil | 1,832 | 0.0005 | 0.85 | 3.7 | 0.039 | 0.172 | 0.25 | 1.11 | 0.0118 | 0.052 |
| Pressure Relief Valves | Light Oil | 0 | 0.0165 | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 |
| Sample Connections | Light Oil | 0 | 0.0005 | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 | 0.0E+00 |
| Total Fugitive Emissions | | | | 1.3 | 5.9 | 0.062 | 0.27 | 0.40 | 1.8 | 0.019 | 0.082 |

¹ Factors are from Table 2-4, Oil & Gas Production Operations Average Emission Factors from EPA Protocol for Equipment Leak Emission Estimates.
The crude oil at the Wingate Facility is conservatively assumed to have an API gravity greater than 20°. Therefore, "Light Oil (>20° API)" is used.

² LDAR Controls 70% Based on a 10,000 ppm leak factor.

Materials Transferred at Rail Rack

| Material Transferred | Material Type | Loading or Unloading | Max hourly throughput (bbl/hr) | Max daily throughput (bbl/day) | Max annual throughput (bbl/yr) | Railcar Frequency (railcar/hr) | Railcar size (Hourly) (bbl/car) | Railcar size (Annual) (bbl/car) | Railcar Frequency (railcar/yr) |
|----------------------|---------------|----------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------|---------------------------------|--------------------------------|
| Crude | Liquid | Loading | 3465 | 40,000 | 14,600,000 | 5.3 | 660 | 600 | 24,333 |

Liquid Loading Losses

| Material Transferred | Vapor Molecular Weight ¹ (lb/lb-mole) | True Vapor Pressure ¹ (psia) | Saturation Factor ² | Average Temperature ¹ (°R) | Loading Loss ³ (lb/10 ³ gal) |
|----------------------|---|--|--------------------------------|--|---|
| Crude | 60 | 6.4 | 0.60 | 511.0 | 5.6 |

Uncaptured Rail Loading Emissions

| Source ID | Collection Efficiency ⁴ (%) | Uncaptured VOC Emissions (lb/hr) | Uncaptured VOC Emissions (tpy) | Uncaptured H ₂ S Emissions (lb/hr) | Uncaptured H ₂ S Emissions (tpy) |
|-----------|---|-------------------------------------|-----------------------------------|--|--|
| RC-UNCAP | 98.7% | 10.6 | 22.4 | 3.2E-03 | 6.7E-03 |

Rail Loading Emissions After Collection Efficiency

| Source ID | Control Device | Control Efficiency (%) | Annual Uncontrolled VOC Emissions sent to VCU (tpy) | Uncontrolled VOC Loading Emissions (lb/hr) | Annual Uncontrolled H ₂ S Emissions sent to VCU (tpy) | Uncontrolled H ₂ S Loading Emissions (lb/hr) |
|-----------|----------------|---------------------------|--|---|---|--|
| RC-LOAD | VCU | 98.0% | 1701.3 | 807.5 | 5.1E-01 | 2.4E-01 |

¹ Per TANKS 4.0.9d report

² Per U.S. EPA AP-42 Section 5.2 Transportation And Marketing Of Petroleum Liquids, Table 5.2-1. For crude, selected the highest non-splash loading emission factor from Table 5.2-1.

³ Per Equation 1 described in U.S. EPA AP-42 Section 5.2 Transportation And Marketing Of Petroleum Liquids.

⁴ Vapor collection efficiency is assumed to be 98.7%

Uncontrolled Railcar Crude Loading Hose Disconnect Fugitive Emissions

| Source ID | Loading Arm Diameter | Soft Hose Length | Loading Arm Pipe Length | Loading Arm Overpressure | Depressurized Volume ¹ | Vapor Molecular Weight ² | True Vapor Pressure ² | Fugitive VOC Emissions | | | Fugitive H ₂ S emissions ³ | |
|-----------|----------------------|------------------|-------------------------|--------------------------|-----------------------------------|-------------------------------------|----------------------------------|------------------------|---------|-------|--|---------|
| | (in) | (ft) | (ft) | (psig) | (ft ³ /railcar) | (lb/lb-mole) | (psia) | (lb/railcar) | (lb/hr) | (tpy) | (lb/hr) | (tpy) |
| RC-HOSE | 4 | 10 | 10 | 1 | 0.99 | 60 | 6.40 | 0.067 | 0.35 | 0.8 | 1.1E-04 | 2.5E-04 |

¹ The hose will be capped as soon as it is disconnected from the railcar. It is assumed, all of the vapor from the soft hose is released (worst case emissions) and all of the vapor from the pipe above atmospheric pressure (14.7 psia) or gauge pressure. The vapor area released is calculated by taking the volume of the hose and piping multiplied by the pressure fraction released. The entire volume of the hose is assumed to be released, but only the pressure above atmospheric or gauge pressure of the pipe. Depressurized Volume: (Diameter² x Pi ÷ 4) x [Hose length x (psia + 14.7 psi) + Pipe length x (psig + 14.7 psi)]

² Per TANKS 4.0.9d report

³ An H₂S concentration 300 ppm was assumed for the H₂S emission calculations.

Materials Transferred at Truck Rack

| Source ID | Material Transferred | Material Type | Loading or Unloading | Number of Trucks Unloading per Hour (truck/hr) | Truck Size (bbl) | Daily Throughput (bbl/day) | Max hourly throughput (bbl/hr) | Annual throughput (bbl/yr) | Trucks Per Year (truck/year) |
|-----------|----------------------|---------------|----------------------|--|------------------|----------------------------|--------------------------------|----------------------------|------------------------------|
| TR-HOSE | Crude (RVP 10) | Liquid | Unloading | 12 | 180 | 25,000 | 2160 | 9,125,000 | 50694 |

Uncontrolled Crude Truck Unloading Hose Disconnect Fugitive Emissions

| Source ID | Loading Arm Diameter | Soft Hose Length | Loading Arm Pipe Length | Loading Arm Overpressure | Depressurized Volume ¹ | Vapor Molecular Weight ² | Daily Throughput | True Vapor Pressure ² | Fugitive VOC Emissions | | | Fugitive H ₂ S Emissions ³ | |
|-----------|----------------------|------------------|-------------------------|--------------------------|-----------------------------------|-------------------------------------|------------------|----------------------------------|------------------------|---------|-------|--|---------|
| | (in) | (ft) | (ft) | (psig) | (ft ³ /truck) | (lb/lb-mole) | (bbl/day) | (psia) | (lb/truck) | (lb/hr) | (tpy) | (lb/hr) | (tpy) |
| TR-HOSE | 4 | 10 | 10 | 1 | 0.99 | 60 | 25,000 | 6.40 | 0.067 | 0.81 | 1.70 | 2.4E-04 | 5.1E-04 |

¹ The hose will be capped as soon as it is disconnected from the truck. It is assumed, all of the vapor from the soft hose is released (worst case emissions) and all of the vapor from the pipe above atmospheric pressure (14.7 psia) or gauge pressure. The vapor area released is calculated by taking the volume of the hose and piping multiplied by the pressure fraction released. The entire volume of the hose is assumed to be released, but only the pressure above atmospheric or gauge pressure of the pipe. Depressurized Volume: (Diameter² x Pi ÷ 4) x [Hose length x (psia ÷ 14.7 psi) + Pipe length x (psig ÷ 14.7 psi)]

² Per Tanks 4.0.9d report

Emission unit number(s): Haul-Rd
Source description: Haul Road Emissions

Input Data

| | | | |
|-------------------------------------|--------|------------|--|
| Empty vehicle weight ¹ | 16 | tons | ¹ Empty vehicle weight includes driver and occupants and full fuel load. |
| Load weight ² | 24.0 | tons | ² Cargo, transported materials, etc. |
| Loaded vehicle ³ | 40.0 | tons | ³ Loaded vehicle weight = Empty + Load Size |
| Mean vehicle weight ⁴ | 28.0 | tons | ⁴ Mean Vehicle weight = (Loaded Weight + Empty Weight) / 2 |
| Round-trip distance | 0.21 | mile/trip | Obtained from Google earth - measuring roundtrip truck route from fence line; |
| Trip frequency ⁵ | 12.0 | trips/hour | ⁵ Max trucks on road in one hour; |
| Trip frequency ⁶ | 57,031 | trips/yr | Annual trucks per year requested; |
| Surface silt content ⁷ | 0.6 | % | ⁷ AP-42 Table 13.2.1-2 - Paved Haul Roads < 500 |
| Annual wet days ⁸ | 60 | days/yr | ⁸ AP-42 Figure 13.2.1-1 |
| Vehicle miles traveled ⁹ | 2.5 | mile/hr | ⁹ VMT/hr = Vehicle Miles Traveled per hour= Trips per hour * Segment Length |

Emission Factors and Constants

| Parameter | PM ₃₀ | PM ₁₀ | PM _{2.5} |
|---------------------------------|------------------|------------------|-------------------|
| k, lb/VMT ¹⁰ | 0.011 | 0.0022 | 0.00054 |
| Hourly EF, lb/VMT ¹¹ | 0.21 | 0.041 | 0.010 |
| Annual EF, lb/VMT ¹² | 0.17 | 0.035 | 0.0085 |

¹⁰ Table 13.2.1-1, Paved Roads
¹¹ AP-42 13.2.1, Equation 1
¹² AP-42 13.2.1, Equation 2

Haul Road Emission Calculations

| | PM ₃₀ | PM ₁₀ | PM _{2.5} |
|------------------|------------------|------------------|-------------------|
| Hourly emissions | 0.52 | 0.104 | 0.026 |
| Annual Emissions | 1.04 | 0.21 | 0.051 |

lb/hr = Hourly EF (lb/VMT) * VMT (mile/hr)
ton/yr = Annual EF (lb/VMT) * VMT (mile/Trip) * Trips per year (Trip/yr) / 2000 (lb/tpy)

Emission calculations based on John Zink VCU Performance Guarantee

| | Unit | VOC | NOx ⁵ | CO ⁵ | H ₂ S ¹ | SO ₂ ² | HAPs ³ | PM ⁴ |
|---|--------------------|--------|------------------|-----------------|-------------------------------|------------------------------|-------------------|-----------------|
| VCU Pilot Combustion Emission Factor | lb/mmBtu | 0.060 | 0.14 | 0.28 | - | - | - | - |
| John Zink Guaranteed Emission Factor | mg/L load | 10 | 4 | 10 | - | - | - | - |
| John Zink Guaranteed Emission Factor | lb/1000-Gal loaded | 0.083 | 0.033 | 0.083 | - | - | - | - |
| AP-42 Table 1.4-2 | lb/MMscf | - | - | - | - | - | - | 7.6 |
| AP-42 Table 1.4-2 | lb/MMBtu | - | - | - | - | - | - | 0.0075 |
| Concentration | ppmw | - | - | - | 300.0 | - | - | - |
| Pilot Emissions Hourly⁶ | lb/hr | 0.0036 | 0.0084 | 0.017 | - | - | 1.67E-04 | 4.47E-04 |
| Pilot Emissions Annual | t/y | 0.016 | 0.037 | 0.074 | - | - | 7.31E-04 | 1.96E-03 |
| Loading Emissions Hourly | lb/hr | 12.1 | 4.9 | 12.1 | 3.6E-03 | 3.4E-01 | 0.56 | 0.15 |
| Loading Emissions Annual | t/y | 25.6 | 10.2 | 25.6 | 7.7E-03 | 7.2E-01 | 1.2 | 0.31 |
| Total Emissions Hourly | lb/hr | 12.1 | 4.9 | 12.2 | 3.6E-03 | 3.4E-01 | 0.56 | 0.15 |
| Total Emissions Annual | t/y | 25.6 | 10.3 | 25.7 | 7.7E-03 | 0.721 | 1.2 | 0.31 |

¹ H₂S Emissions are based on : 300 ppmw

² Only 98% combustion of H₂S is assumed but a 100% conversion rate of H₂S to SO₂ is assumed.

³ HAPs:

| Weight Percent HAPs in VOC | Weight % | Hourly* (lb/hr) | Annual* (tpy) |
|----------------------------|--------------|--------------------|------------------|
| Benzene | 0.34% | 4.1E-02 | 8.7E-02 |
| Toluene | 0.76% | 9.3E-02 | 1.9E-01 |
| Ethylbenzene | 0.14% | 1.7E-02 | 3.6E-02 |
| Xylene (-m) | 0.62% | 7.5E-02 | 1.6E-01 |
| n-Hexane | 1.76% | 2.1E-01 | 4.5E-01 |
| Cyclohexane | 0.94% | 1.1E-01 | 2.4E-01 |
| 2,2,4-Trimethylpentane | 0.03% | 3.2E-03 | 6.8E-03 |
| Naphthalene | 0.05% | 5.6E-03 | 1.2E-02 |
| Total HAPS | 4.64% | 0.56 | 1.2 |

* VOC Emission Rate x HAP Weight%

⁴ PM emissions are based on Table 1.4-2 of AP-42.

⁵ Emission factors for NO_x and CO based on TNRCC RG-109

⁶ Hourly pilot emissions were calculated assuming a VCU flow rate of 60 scf/hr

SURFACE COATING EMISSIONS CALCULATIONS

Basis of Calculation:

VOC calculations are based on the product usage, VOC or HAP content, and density of a general paint used for SSM. The paint chosen has the highest VOC content of all paints typically used for these activities. It has been assumed that all VOC in the solution escapes to atmosphere. Emissions are calculated using the following equations:

$$\text{Hourly VOC Emissions (lb/hr)} = [\text{Usage Rate (gal/hr)}] * [\text{VOC or HAP Content (lb/gal)}]$$

$$\text{Annual VOC Emissions (tpy)} = [\text{Usage Rate (gal/yr)}] * [\text{VOC or HAP Content (lb/gal)}] / [2,000 \text{ (lb/ton)}]$$

It is assumed that all surface coating products are sprayed. Particulate emissions are calculated based on the usage rate and solids content for the product, as well as a transfer efficiency and fallout factor obtained from TCEQ's Painting Basics and Emissions Calculations for TCEQ Air Quality Permit Applications. The following equations are used to calculate particulate emissions:

$$\text{Short-term PM emissions (lb/hr)} = \text{Solids Content (\%)} * \text{Density (lb/gal)} * \text{Volume of Product used (gal/hr)} * (1 - \text{Transfer Efficiency (\%)}) * (1 - \text{Fallout Factor (\%)})$$

$$\text{Annual PM emissions (tpy)} = \text{Solids Content (\%)} * \text{Density (lb/gal)} * \text{Volume of Product used (gal/yr)} * (1 - \text{Transfer Efficiency (\%)}) * (1 - \text{Fallout Factor (\%)}) / 2,000 \text{ (lb/ton)}$$

Potential VOC and HAP Emissions from Paint Usage

| Product | VOC Content (lb/gal) | Usage Rates | | VOC Emissions | |
|---------------|----------------------|-------------|----------|---------------|-------------|
| | | (gal/hr) | (gal/yr) | (lb/hr) | (tpy) |
| Paint | 2.80 | 30.0 | 1260.0 | 16.8 | 0.35 |
| Totals | | | | 16.8 | 0.35 |

¹ VOC content based on similar facility.

Potential PM/PM₁₀/PM_{2.5} Emissions from Spray Paint Usage

| Product | Density (lb/gal) | Solids Content ¹ (wt %) | Usage Rates | | Object Coated | Transfer Efficiency ² (%) | Fallout Factor (%) ³ | | | PM Emissions | | PM ₁₀ Emissions | | PM _{2.5} Emissions | |
|---------|------------------|------------------------------------|-------------|----------|---------------|--------------------------------------|---------------------------------|------------------|-------------------|--------------|----------|----------------------------|----------|-----------------------------|----------|
| | | | (gal/hr) | (gal/yr) | | | PM | PM ₁₀ | PM _{2.5} | (lb/hr) | (tpy) | (lb/hr) | (tpy) | (lb/hr) | (tpy) |
| Paint | 11.40 | 80% | 30.0 | 1,260.0 | Flat Surface | 75% | 98.56 | 99.87 | 99.99 | 3.91E-02 | 8.21E-04 | 3.53E-03 | 7.41E-05 | 2.72E-04 | 5.70E-06 |

¹ Per the representative Material Safety Data Sheet (MSDS).

² Transfer efficiency per TCEQ guidance (TCEQ's Painting Basics and Emissions Calculations for TCEQ Air Quality Permit Applications, November 5, 2012).

³ Fallout factors per TCEQ's Painting Basics and Emissions Calculations for TCEQ Air Quality Permit Applications, November 5, 2012, Table 2

ABRASIVE BLASTING EMISSIONS CALCULATIONS

Basis of Calculation:

These calculations represent emissions resulting from dry abrasive blasting. Emission factors are based on U.S. EPA AP-42, Chapter 13.2.6, Abrasive Blasting.

Dry Abrasive Blasting

| Blasting Material | Usage Per Event (lb/hr) | Duration of Event (hr/event) | Annual Usage (lb/yr) | Emissions Factor ¹ (lb/ lb abrasive) | | | Hourly Emissions (lb/hr) | | | Annual Emissions (tpy) | | |
|-------------------------|----------------------------|---------------------------------|-------------------------|--|------------------|-------------------|--------------------------|------------------|-------------------|------------------------|------------------|-------------------|
| | | | | PM | PM ₁₀ | PM _{2.5} | PM | PM ₁₀ | PM _{2.5} | PM | PM ₁₀ | PM _{2.5} |
| Copper Slag | 670.0 | 4.0 | 2,680.0 | 0.091 | 0.013 | 0.001 | 61.0 | 8.7 | 8.7 | 0.12 | 0.017 | 1.74E-03 |
| Total Emissions: | | | | | | | 61.0 | 8.7 | 8.7 | 0.12 | 0.017 | 1.74E-03 |

¹ Emission factors based on the highest average wind speed across the affected area, as provided in http://www.windpoweringamerica.gov/pdfs/wind_maps/tx_80m.pdf. This corresponds to 9 m/s or about 20 mph.

Truck Bays Fugitives

Emission unit: 16

| Stream | Components Count | | | | | | |
|-----------------------|--------------------|----------------------|------------------|------------|---------------|--------|---------|
| | Sample Connections | Threaded Connections | Open Ended Lines | Pump Seals | Relief Valves | Valves | Flanges |
| R | | | | | | | |
| Mix C3/C4 | | | | | | | |
| Mix C4/Gasoline | | | | | | | |
| C3 | | | | | | | |
| Mix C4 | | | | | | | |
| i-C4 | | | | | | | |
| n-C4 | | | | | | | |
| Natural Gasoline | | | | | | | |
| Methyl Mercaptan | | | | | | | |
| All (Vents & Headers) | | | | | | | |
| TOTAL | 6 | 2164 | 0 | 0 | 10 | 385 | 192 |

| Components in Light Liquids Service | Emissions | | | | | | | TOC Total | VOC Total (excludes C1,C2) |
|--|-----------|---------|---------|---------|---------|---------|---------|-----------|-------------------------------|
| | 2.1E-04 | 2.1E-04 | 1.4E-03 | 1.3E-02 | 7.5E-03 | 2.5E-03 | 1.1E-04 | | |
| TOC Factors (kg/component-hr) ¹ | 2.1E-04 | 2.1E-04 | 1.4E-03 | 1.3E-02 | 7.5E-03 | 2.5E-03 | 1.1E-04 | | |
| TOC Factors (lb/component-hr) | 0.00046 | 0.00046 | 0.0031 | 0.0286 | 0.017 | 0.0055 | 0.00024 | | |
| lb/hr | 0.0028 | 1.0010 | 0 | 0 | 0.1652 | 2.1200 | 0.0465 | 3.34 | 3.30 |
| tpy | 0.0122 | 4.3842 | 0 | 0 | 0.7236 | 9.2858 | 0.2038 | 14.61 | 14.47 |

VOC WEIGHT FRACTION = 0.9902

¹EPA Protocol for Emission Leak Estimates 453/R-95-017 November 1995

(These are the factors used in GRI HAPCalc Version 3.0)

| HAP | Weight % | Emission Rates | |
|-------------------|----------|----------------|---------------|
| | | lb/hr | tpy |
| Benzene | 0.4440 | 0.0147 | 0.0642 |
| Toluene | 0.4700 | 0.0155 | 0.0680 |
| Ethylbenzene | 0.0950 | 0.0031 | 0.0137 |
| m-xylene | 0.0120 | 0.0004 | 0.0017 |
| p-xylene | 0.0000 | 0.0000 | 0.0000 |
| o-xylene | 0.0150 | 0.0005 | 0.0022 |
| n Hexane | 3.1070 | 0.1026 | 0.4495 |
| Total HAPs | 4.1430 | 0.1368 | 0.5993 |

Butamer Unit Fugitives

Emission unit: 18

| Component Count | light liquid | gas | total |
|----------------------|--------------|------------|-------------|
| valves | 697 | 174 | 871 |
| pumps | 0 | 0 | 0 |
| pressure relief, etc | 0 | 0 | 0 |
| connectors | 0 | 0 | 0 |
| flanges | 1742 | 436 | 2178 |
| open ended lines | 0 | 0 | 0 |
| total | 2439 | 610 | 3049 |

| Emissions | | count | kg/hr/source | kg/hr | Uncontrolled | | Control* | Controlled | |
|------------------------------|--|-------------|--------------|-------------|--------------|--------------|----------|-------------|--------------|
| | | | | | lb/hr | tpy | | lb/hr | tpy |
| Light Liquid | | | | | | | | | |
| valves | | 697 | 2.50E-03 | 1.74 | 3.83 | 16.79 | 61% | 1.49 | 6.55 |
| pumps | | | 1.30E-02 | 0.00 | 0.00 | 0.00 | | | |
| pressure relief, etc | | | 7.50E-03 | 0.00 | 0.00 | 0.00 | | | |
| connectors | | | 2.10E-04 | 0.00 | 0.00 | 0.00 | | | |
| flanges | | 1742 | 1.10E-04 | 0.19 | 0.42 | 1.85 | 0% | 0.42 | 1.85 |
| open ended lines | | | 1.40E-03 | 0.00 | 0.00 | 0.00 | | | |
| total | | 2439 | | 1.93 | 4.25 | 18.63 | | 1.92 | 8.39 |
| Gas | | | | | | | | | |
| valves | | 174 | 4.50E-03 | 0.78 | 1.72 | 7.55 | 67% | 0.57 | 2.49 |
| pumps | | | 2.40E-03 | 0.00 | 0.00 | 0.00 | | | |
| pressure relief, etc | | | 8.80E-03 | 0.00 | 0.00 | 0.00 | | | |
| connectors | | | 2.00E-04 | 0.00 | 0.00 | 0.00 | | | |
| flanges | | 436 | 3.90E-04 | 0.17 | 0.37 | 1.64 | 0% | 0.37 | 1.64 |
| open ended lines | | | 2.00E-03 | 0.00 | 0.00 | 0.00 | | | |
| total | | 610 | | 0.95 | 2.10 | 9.19 | | 0.94 | 4.13 |
| | | | | | lb/hr | tpy | | lb/hr | tpy |
| Total VOC fugitive emissions | | | | | 6.35 | 27.82 | | 2.86 | 12.52 |

* EPA 453/R-95-017, tables 5-2 & 5-6. Control factor applied for LDAR program.

| HAP | Weight % | Emission Rates | |
|-------------------|---------------|----------------|---------------|
| | | lb/hr | tpy |
| Benzene | 0.4440 | 0.0127 | 0.0556 |
| Toluene | 0.4700 | 0.0134 | 0.0589 |
| Ethylbenzene | 0.0950 | 0.0027 | 0.0119 |
| m-xylene | 0.0120 | 0.0003 | 0.0015 |
| p-xylene | 0.0000 | 0.0000 | 0.0000 |
| o-xylene | 0.0150 | 0.0004 | 0.0019 |
| n Hexane | 3.1070 | 0.0888 | 0.3891 |
| Total HAPs | 4.1430 | 0.1185 | 0.5188 |

Propane Storage & Rail Loading Fugitives

Emission unit: 20

| Stream | Components Count | | | | | | |
|-----------------------|--------------------|----------------------|------------------|------------|---------------|--------|---------|
| | Sample Connections | Threaded Connections | Open Ended Lines | Pump Seals | Relief Valves | Valves | Flanges |
| R | | | | | | | |
| Mix C3/C4 | | | | | | | |
| Mix C4/Gasoline | | | | | | | |
| C3 | | | | | | | |
| Mix C4 | | | | | | | |
| i-C4 | | | | | | | |
| n-C4 | | | | | | | |
| Natural Gasoline | | | | | | | |
| Methyl Mercaptan | | | | | | | |
| All (Vents & Headers) | | | | | | | |
| TOTAL | 0 | 2220 | 0 | 0 | 19 | 705 | 873 |

| Components in Light Liquids Service | Emissions | | | | | | | | | |
|--|--|---------|---------|---------|---------|---------|---------|-------|-----------|----------------------------|
| | TOC Factors (kg/component-hr) ¹ | | | | | | | | TOC Total | VOC Total (excludes C1,C2) |
| TOC Factors (kg/component-hr) ¹ | 2.1E-04 | 2.1E-04 | 1.4E-03 | 1.3E-02 | 7.5E-03 | 2.5E-03 | 1.1E-04 | | | |
| TOC Factors (lb/component-hr) | 0.00046 | 0.00046 | 0.0031 | 0.029 | 0.017 | 0.0055 | 0.00024 | | | |
| lb/hr | 0 | 1.0269 | 0 | 0 | 0.3139 | 3.8822 | 0.2115 | 5.43 | 5.38 | |
| tpy | 0 | 4.4977 | 0 | 0 | 1.3748 | 17.0039 | 0.9265 | 23.80 | 23.57 | |

VOC WEIGHT FRACTION = 0.9902

¹EPA Protocol for Emission Leak Estimates 453/R-95-017 November 1995

(These are the factors used in GRI HAPCalc Version 3.0)

| HAP | Weight % | Emission Rates | |
|-------------------|----------|----------------|---------------|
| | | lb/hr | tpy |
| Benzene | 0.4440 | 0.0239 | 0.1046 |
| Toluene | 0.4700 | 0.0253 | 0.1108 |
| Ethylbenzene | 0.0950 | 0.0051 | 0.0224 |
| m-xylene | 0.0120 | 0.0006 | 0.0028 |
| p-xylene | 0.0000 | 0.0000 | 0.0000 |
| o-xylene | 0.0150 | 0.0008 | 0.0035 |
| n Hexane | 3.1070 | 0.1672 | 0.7323 |
| Total HAPs | 4.1430 | 0.2229 | 0.9765 |

Isobutane Storage & Rail Loading Fugitives

Emission unit: 21

| Stream | Components Count | | | | | | |
|-----------------------|--------------------|----------------------|------------------|------------|---------------|--------|---------|
| | Sample Connections | Threaded Connections | Open Ended Lines | Pump Seals | Relief Valves | Valves | Flanges |
| R | | | | | | | |
| Mix C3/C4 | | | | | | | |
| Mix C4/Gasoline | | | | | | | |
| C3 | | | | | | | |
| Mix C4 | | | | | | | |
| i-C4 | | | | | | | |
| n-C4 | | | | | | | |
| Natural Gasoline | | | | | | | |
| Methyl Mercaptan | | | | | | | |
| All (Vents & Headers) | | | | | | | |
| TOTAL | 0 | 1509 | 0 | 0 | 17 | 602 | 680 |

| Components in Light Liquids Service | Emissions | | | | | | | | |
|-------------------------------------|--|---------|---------|---------|---------|---------|---------|---------|--------------|
| | TOC Factors (kg/component-hr) ¹ | 2.1E-04 | 2.1E-04 | 1.4E-03 | 1.3E-02 | 7.5E-03 | 2.5E-03 | 1.1E-04 | TOC Total |
| TOC Factors (lb/component-hr) | 0.00046 | 0.00046 | 0.0031 | 0.029 | 0.017 | 0.0055 | 0.00024 | 4.46 | 4.41 |
| lb/hr | 0 | 0.6980 | 0 | 0 | 0.2808 | 3.3150 | 0.1648 | 19.53 | 19.34 |
| tpy | 0 | 3.0572 | 0 | 0 | 1.2301 | 14.5196 | 0.7216 | | |

VOC WEIGHT FRACTION = 0.9902

¹EPA Protocol for Emission Leak Estimates 453/R-95-017 November 1995

(These are the factors used in GRI HAPCalc Version 3.0)

| HAP | Weight % | Emission Rates | |
|-------------------|---------------|----------------|---------------|
| | | lb/hr | tpy |
| Benzene | 0.4440 | 0.0196 | 0.0859 |
| Toluene | 0.4700 | 0.0207 | 0.0909 |
| Ethylbenzene | 0.0950 | 0.0042 | 0.0184 |
| m-xylene | 0.0120 | 0.0005 | 0.0023 |
| p-xylene | 0.0000 | 0.0000 | 0.0000 |
| o-xylene | 0.0150 | 0.0007 | 0.0029 |
| n Hexane | 3.1070 | 0.1372 | 0.6008 |
| Total HAPs | 4.1430 | 0.1829 | 0.8011 |

Normal Butane Storage & Rail Loading Fugitives

Emission unit: 22

| Stream | Components Count | | | | | | |
|-----------------------|--------------------|----------------------|------------------|------------|---------------|--------|---------|
| | Sample Connections | Threaded Connections | Open Ended Lines | Pump Seals | Relief Valves | Valves | Flanges |
| R | | | | | | | |
| Mix C3/C4 | | | | | | | |
| Mix C4/Gasoline | | | | | | | |
| C3 | | | | | | | |
| Mix C4 | | | | | | | |
| i-C4 | | | | | | | |
| n-C4 | | | | | | | |
| Natural Gasoline | | | | | | | |
| Methyl Mercaptan | | | | | | | |
| All (Vents & Headers) | | | | | | | |
| TOTAL | 1 | 1219 | 0 | 0 | 11 | 382 | 467 |

| Components in Light Liquids Service | Emissions | | | | | | | | |
|-------------------------------------|--|---------|---------|---------|---------|---------|---------|---------|--------------|
| | TOC Factors (kg/component-hr) ¹ | 2.1E-04 | 2.1E-04 | 1.4E-03 | 1.3E-02 | 7.5E-03 | 2.5E-03 | 1.1E-04 | TOC Total |
| TOC Factors (lb/component-hr) | 0.00046 | 0.00046 | 0.0031 | 0.029 | 0.017 | 0.0055 | 0.00024 | 2.96 | 2.93 |
| lb/hr | 0.0005 | 0.5639 | 0 | 0 | 0.1817 | 2.1035 | 0.1131 | 2.96 | 2.93 |
| tpy | 0.0020 | 2.4697 | 0 | 0 | 0.7959 | 9.2134 | 0.4956 | 12.98 | 12.85 |

VOC WEIGHT FRACTION = 0.9902

¹EPA Protocol for Emission Leak Estimates 453/R-95-017 November 1995

(These are the factors used in GRI HAPCalc Version 3.0)

| HAP | Weight % | Emission Rates | |
|-------------------|----------|----------------|---------------|
| | | lb/hr | tpy |
| Benzene | 0.4440 | 0.0130 | 0.0571 |
| Toluene | 0.4700 | 0.0138 | 0.0604 |
| Ethylbenzene | 0.0950 | 0.0028 | 0.0122 |
| m-xylene | 0.0120 | 0.0004 | 0.0015 |
| p-xylene | 0.0000 | 0.0000 | 0.0000 |
| o-xylene | 0.0150 | 0.0004 | 0.0019 |
| n Hexane | 3.1070 | 0.0911 | 0.3992 |
| Total HAPs | 4.1430 | 0.1215 | 0.5324 |

Gasoline Storage & Rail Loading Fugitives

Emission unit: 23

| Stream | Components Count | | | | | | |
|-----------------------|--------------------|----------------------|------------------|------------|---------------|--------|---------|
| | Sample Connections | Threaded Connections | Open Ended Lines | Pump Seals | Relief Valves | Valves | Flanges |
| R | | | | | | | |
| Mix C3/C4 | | | | | | | |
| Mix C4/Gasoline | | | | | | | |
| C3 | | | | | | | |
| Mix C4 | | | | | | | |
| i-C4 | | | | | | | |
| n-C4 | | | | | | | |
| Natural Gasoline | | | | | | | |
| Methyl Mercaptan | | | | | | | |
| All (Vents & Headers) | | | | | | | |
| TOTAL | 1 | 1716 | 0 | 0 | 10 | 485 | 518 |

| Components in Light Liquids Service | Emissions | | | | | | | | |
|-------------------------------------|--|---------|---------|---------|---------|---------|---------|---------|--------------|
| | TOC Factors (kg/component-hr) ¹ | 2.1E-04 | 2.1E-04 | 1.4E-03 | 1.3E-02 | 7.5E-03 | 2.5E-03 | 1.1E-04 | TOC Total |
| TOC Factors (lb/component-hr) | 0.00046 | 0.00046 | 0.0031 | 0.029 | 0.017 | 0.0055 | 0.00024 | 3.76 | 3.72 |
| lb/hr | 0.0005 | 0.7937 | 0 | 0 | 0.1652 | 2.6707 | 0.1255 | 3.76 | 3.72 |
| tpy | 0.0020 | 3.4766 | 0 | 0 | 0.7236 | 11.6977 | 0.5497 | 16.45 | 16.29 |

VOC WEIGHT FRACTION = 0.9902

¹EPA Protocol for Emission Leak Estimates 453/R-95-017 November 1995

(These are the factors used in GRI HAPCalc Version 3.0)

| HAP | Weight % | Emission Rates | |
|-------------------|----------|----------------|---------------|
| | | lb/hr | tpy |
| Benzene | 0.4440 | 0.0165 | 0.0723 |
| Toluene | 0.4700 | 0.0175 | 0.0766 |
| Ethylbenzene | 0.0950 | 0.0035 | 0.0155 |
| m-xylene | 0.0120 | 0.0004 | 0.0020 |
| p-xylene | 0.0000 | 0.0000 | 0.0000 |
| o-xylene | 0.0150 | 0.0006 | 0.0024 |
| n Hexane | 3.1070 | 0.1155 | 0.5061 |
| Total HAPs | 4.1430 | 0.1541 | 0.6748 |

Ethyl Mercaptan Storage & Injection System Fugitives

Emission unit: 24

| Stream | Components Count | | | | | | |
|-----------------------|--------------------|----------------------|------------------|------------|---------------|--------|---------|
| | Sample Connections | Threaded Connections | Open Ended Lines | Pump Seals | Relief Valves | Valves | Flanges |
| R | | | | | | | |
| Mix C3/C4 | | | | | | | |
| Mix C4/Gasoline | | | | | | | |
| C3 | | | | | | | |
| Mix C4 | | | | | | | |
| i-C4 | | | | | | | |
| n-C4 | | | | | | | |
| Natural Gasoline | | | | | | | |
| Methyl Mercaptan | | | | | | | |
| All (Vents & Headers) | | | | | | | |
| TOTAL | 0 | 1832 | 0 | 0 | 0 | 89 | 18 |

| Components in Light Liquids Service | Emissions | | | | | | | | | |
|-------------------------------------|--|---------|---------|---------|---------|---------|---------|---------|-----------|----------------------------|
| | TOC Factors (kg/component-hr) ¹ | 2.1E-04 | 2.1E-04 | 1.4E-03 | 1.3E-02 | 7.5E-03 | 2.5E-03 | 1.1E-04 | TOC Total | VOC Total (excludes C1,C2) |
| TOC Factors (lb/component-hr) | 0.00046 | 0.00046 | 0.0031 | 0.029 | 0.017 | 0.0055 | 0.00024 | 1.34 | 5.88 | 1.33 |
| lb/hr | 0 | 0.8474 | 0 | 0 | 0.0000 | 0.4901 | 0.0044 | 1.34 | 5.88 | 1.33 |
| tpy | 0 | 3.7116 | 0 | 0 | 0.0000 | 2.1466 | 0.0191 | 5.88 | 24.00 | 5.82 |

VOC WEIGHT FRACTION = 0.9902

¹EPA Protocol for Emission Leak Estimates 453/R-95-017 November 1995

(These are the factors used in GRI HAPCalc Version 3.0)

| HAP | Weight % | Emission Rates | |
|-------------------|----------|----------------|---------------|
| | | lb/hr | tpy |
| Benzene | 0.4440 | 0.0059 | 0.0258 |
| Toluene | 0.4700 | 0.0062 | 0.0274 |
| Ethylbenzene | 0.0950 | 0.0013 | 0.0055 |
| m-xylene | 0.0120 | 0.0002 | 0.0007 |
| p-xylene | 0.0000 | 0.0000 | 0.0000 |
| o-xylene | 0.0150 | 0.0002 | 0.0009 |
| n Hexane | 3.1070 | 0.0413 | 0.1808 |
| Total HAPs | 4.1430 | 0.0550 | 0.2411 |

Product Pumping Systems Fugitives

Emission unit: 25

| Stream | Components Count | | | | | | |
|-----------------------|--------------------|----------------------|------------------|------------|---------------|--------|---------|
| | Sample Connections | Threaded Connections | Open Ended Lines | Pump Seals | Relief Valves | Valves | Flanges |
| R | | | | | | | |
| Mix C3/C4 | | | | | | | |
| Mix C4/Gasoline | | | | | | | |
| C3 | | | | | | | |
| Mix C4 | | | | | | | |
| i-C4 | | | | | | | |
| n-C4 | | | | | | | |
| Natural Gasoline | | | | | | | |
| Methyl Mercaptan | | | | | | | |
| All (Vents & Headers) | | | | | | | |
| TOTAL | 17 | 3153 | 0 | 18 | 0 | 473 | 447 |

| Components in Light Liquids Service | Emissions | | | | | | | | |
|--|-----------|---------|---------|---------|---------|---------|---------|------------------|-----------------------------------|
| TOC Factors (kg/component-hr) ¹ | 2.1E-04 | 2.1E-04 | 1.4E-03 | 1.3E-02 | 7.5E-03 | 2.5E-03 | 1.1E-04 | | |
| TOC Factors (lb/component-hr) | 0.00046 | 0.00046 | 0.0031 | 0.029 | 0.017 | 0.0055 | 0.00024 | TOC Total | VOC Total (excludes C1,C2) |
| lb/hr | 0.0079 | 1.4584 | 0 | 0.5154 | 0 | 2.6046 | 0.1083 | 4.69 | 4.65 |
| tpy | 0.0344 | 6.3880 | 0 | 2.2575 | 0 | 11.4083 | 0.4744 | 20.56 | 20.36 |

VOC WEIGHT FRACTION = 0.9902

¹EPA Protocol for Emission Leak Estimates 453/R-95-017 November 1995

(These are the factors used in GRI HAPCalc Version 3.0)

| HAP | Weight % | Emission Rates | |
|-------------------|----------|----------------|---------------|
| | | lb/hr | tpy |
| Benzene | 0.4440 | 0.0206 | 0.0904 |
| Toluene | 0.4700 | 0.0218 | 0.0957 |
| Ethylbenzene | 0.0950 | 0.0044 | 0.0193 |
| m-xylene | 0.0120 | 0.0006 | 0.0024 |
| p-xylene | 0.0000 | 0.0000 | 0.0000 |
| o-xylene | 0.0150 | 0.0007 | 0.0031 |
| n Hexane | 3.1070 | 0.1444 | 0.6326 |
| Total HAPs | 4.1430 | 0.1926 | 0.8436 |

Hose Blowdown Fugitives

Emission unit: 26

Loading emissions include the blowdown from the hose of the truck rack and rail rack. The following blowdown calculation also includes a contingency for spew gauge emissions from the rail car. All other emissions associated with loading is captured in a closed system to the VRU. The calculation is based on the following: Volume of the hose based on length & internal diameter; volume of the blowdown using a mass density generated by HYSYS in lb/ft³ then multiplying that times the volume in the hose (ft³) to give a lbs of C3 or iC4 or nC4 per blowdown event. This number was then multiplied times the approximate number of events each year for each product from each respective loading system.

Truck Rack Blowdown Calculation

| | | | |
|------------------------------------|----------|----------------------------|---------------------------|
| Pressure (psig) | 10 | C3 Mass Density @ 10 psig | 0.1952 lb/ft ³ |
| Diameter (in) | 2 | iC4 Mass Density @ 10 psig | 0.2626 lb/ft ³ |
| Length (ft) | 30 | nC4 Mass Density @ 10 psig | 0.2665 lb/ft ³ |
| Area (ft ²) | 0.021817 | | |
| Volume (ft ³) @ 0 psig | 0.654498 | | |

| | lbs/event | events/yr | lbs/yr | lbs/hr | tpy |
|------------------|-----------|-----------|--------|--------|------|
| lbs/C3/Blowdown | 0.127758 | 9857 | 1259 | 0.1438 | 0.63 |
| lbs/iC4/Blowdown | 0.171871 | 50 | 9 | 0.0010 | 0.00 |
| lbs/nC4/Blowdown | 0.174424 | 5 | 1 | 0.0001 | 0.00 |
| | | 9912 | 1269 | 0.1448 | 0.63 |

Rail Rack Blowdown Calculation

| | | | |
|------------------------------------|----------|----------------------------|---------------------------|
| Pressure (psig) | 30 | C3 Mass Density @ 30 psig | 0.3623 lb/ft ³ |
| Diameter (in) | 2 | iC4 Mass Density @ 30 psig | 0.4958 lb/ft ³ |
| Length (ft) | 20 | nC4 Mass Density @ 30 psig | 36.022 lb/ft ³ |
| Area (ft ²) | 0.021817 | | |
| Volume (ft ³) @ 0 psig | 0.436332 | | |

| | lbs/event | events/yr | lbs/yr | lbs/hr | tpy |
|------------------|-----------|-----------|--------|--------|-------|
| lbs/C3/Blowdown | 0.158083 | 3746 | 592 | 0.0676 | 0.30 |
| lbs/iC4/Blowdown | 0.216334 | 1930 | 418 | 0.0477 | 0.21 |
| TOTAL* | | 5676 | 1010 | 0.1153 | 0.505 |

*rail rack nC4 blowdown has been eliminated.

Total Blowdown Emissions (Rail and Truck)

| lbs/hr | tpy |
|--------|--------|
| 0.2601 | 1.1392 |

Section 7

Information Used To Determine Emissions

Information Used to Determine Emissions shall include the following:

- If manufacturer data are used, include specifications for emissions units and control equipment, including control efficiencies specifications and sufficient engineering data for verification of control equipment operation, including design drawings, test reports, and design parameters that affect normal operation.
 - If test data are used, include a copy of the complete test report. If the test data are for an emissions unit other than the one being permitted, the emission units must be identical. Test data may not be used if any difference in operating conditions of the unit being permitted and the unit represented in the test report significantly effect emission rates.
 - If the most current copy of AP-42 is used, reference the section and date located at the bottom of the page. Include a copy of the page containing the emissions factors, and clearly mark the factors used in the calculations.
 - If an older version of AP-42 is used, include a complete copy of the section.
 - If an EPA document or other material is referenced, include a complete copy.
 - Fuel specifications sheet.
 - If computer models are used to estimate emissions, include an input summary (if available) and a detailed report, and a disk containing the input file(s) used to run the model. For tank-flashing emissions, include a discussion of the method used to estimate tank-flashing emissions, relative thresholds (i.e., permit or major source (NSPS, PSD or Title V)), accuracy of the model, the input and output from simulation models and software, all calculations, documentation of any assumptions used, descriptions of sampling methods and conditions, copies of any lab sample analysis.
-

The following information used to determine emissions is attached:

- **Crude Oil Storage Tanks (units TK-1 & TK-2)**
 - TANKS 4.0.9d report
- **Crude Oil Storage Tanks (TK-BLAST & TK-PAINT)**
 - AP-42, Section 13.2.6
 - TCEQ's Painting Basics and Emissions Calculations for TCEQ Air Quality Permit Applications, November 5, 2012
 - MSDS
- **Haul Road Emissions (unit Haul-Rd)**
 - AP-42, Section 13.2.1
- **Fugitive emissions**
 - EPA Protocol for Equipment Leak Emission Estimates (11/95)
- **Crude Oil Loading & Unloading emissions**
 - AP-42, Section 5.2
- **Vapor Combustion Unit Emissions (unit VCU-1)**
 - TNRCC RG-109
 - Manufacturer Specification sheet
 - AP-42, Table 1.4-2

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Identification

| | |
|----------------------|----------------------------------|
| User Identification: | Crude Oil EFR Tanks (Wingate) |
| City: | Gallup |
| State: | New Mexico |
| Company: | Western Refining Southwest, Inc. |
| Type of Tank: | External Floating Roof Tank |

Tank Dimensions

| | |
|-------------------|--------------|
| Diameter (ft): | 134.00 |
| Volume (gallons): | 5,063,752.54 |
| Turnovers: | 121.10 |

Paint Characteristics

| | |
|---------------------------|-------------|
| Internal Shell Condition: | Light Rust |
| Shell Color/Shade: | White/White |
| Shell Condition | Good |

Roof Characteristics

| | |
|------------------|---------|
| Type: | Pontoon |
| Fitting Category | Detail |

Tank Construction and Rim-Seal System

| | |
|----------------|-----------------|
| Construction: | Welded |
| Primary Seal: | Mechanical Shoe |
| Secondary Seal | Rim-mounted |

Deck Fitting/Status

| | Quantity |
|--|-----------------|
| Access Hatch (24-in. Diam./Bolted Cover, Gasketed) | 2 |
| Roof Drain (3-in. Diameter)/90% Closed | 1 |
| Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Sock | 25 |
| Roof Leg (3-in. Diameter)/Adjustable, Center Area, Sock | 33 |
| Slotted Guide-Pole/Sample Well/Gask. Sliding Cover, w. Pole Sleeve,Wiper | 2 |
| Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask. | 2 |

Meteorological Data used in Emissions Calculations: Gallup, New Mexico (Avg Atmospheric Pressure = 11.3 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Crude Oil EFR Tanks (Wingate) - External Floating Roof Tank
Gallup, New Mexico

| Mixture/Component | Month | Daily Liquid Surf. Temperature (deg F) | | | Liquid Bulk Temp (deg F) | Vapor Pressure (psia) | | | Vapor Mol. Weight. | Liquid Mass Fract. | Vapor Mass Fract. | Mol. Weight | Basis for Vapor Pressure Calculations |
|--|-------|--|-------|-------|--------------------------|-----------------------|------|------|--------------------|--------------------|-------------------|-------------|---|
| | | Avg. | Min. | Max. | | Avg. | Min. | Max. | | | | | |
| Crude Oil (Four Corners Sweet - Wingate) | All | 50.98 | 42.67 | 59.29 | 48.62 | 6.4042 | N/A | N/A | 60.0000 | | | 163.00 | Option 4: RVP=10 |
| 1,2,4-Trimethylbenzene | | | | | | 0.0141 | N/A | N/A | 120.1900 | 0.0046 | 0.0000 | 120.19 | Option 2: A=7.04383, B=1573.267, C=208.56 |
| 2,2,4-Trimethylpentane | | | | | | 0.4568 | N/A | N/A | 114.2300 | 0.0005 | 0.0001 | 114.23 | Option 2: A=6.8118, B=1257.84, C=220.74 |
| Benzene | | | | | | 0.9046 | N/A | N/A | 78.1100 | 0.0053 | 0.0020 | 78.11 | Option 2: A=6.905, B=1211.033, C=220.79 |
| Butane | | | | | | 22.1718 | N/A | N/A | 64.0000 | 0.0147 | 0.1384 | 64.00 | Option 1: VP50 = 21.7 VP60 = 26.5 |
| Cyclohexane | | | | | | 0.9439 | N/A | N/A | 84.1600 | 0.0144 | 0.0058 | 84.16 | Option 2: A=6.841, B=1201.53, C=222.65 |
| Ethylbenzene | | | | | | 0.0787 | N/A | N/A | 106.1700 | 0.0032 | 0.0001 | 106.17 | Option 2: A=6.975, B=1424.255, C=213.21 |
| Heptane (-n) | | | | | | 0.4646 | N/A | N/A | 100.2000 | 0.8713 | 0.1717 | 100.20 | Option 3: A=37358, B=8.2585 |
| Hexane (-n) | | | | | | 1.5057 | N/A | N/A | 86.1700 | 0.0222 | 0.0142 | 86.17 | Option 2: A=6.876, B=1171.17, C=224.41 |
| Isopentane | | | | | | 8.0970 | N/A | N/A | 72.1500 | 0.0131 | 0.0451 | 72.15 | Option 1: VP50 = 7.889 VP60 = 10.005 |
| Isopropyl benzene | | | | | | 0.0362 | N/A | N/A | 120.2000 | 0.0006 | 0.0000 | 120.20 | Option 2: A=6.963, B=1460.793, C=207.78 |
| Naphthalene | | | | | | 0.0016 | N/A | N/A | 128.0000 | 0.0011 | 0.0000 | 128.00 | Option 1: VP50 = .0015 VP60 = .0024 |
| Pentane (-n) | | | | | | 5.5760 | N/A | N/A | 72.1500 | 0.0188 | 0.0445 | 72.15 | Option 3: A=27691, B=7.558 |
| Toluene | | | | | | 0.2478 | N/A | N/A | 92.1300 | 0.0158 | 0.0017 | 92.13 | Option 2: A=6.954, B=1344.8, C=219.48 |
| Xylene (-m) | | | | | | 0.0654 | N/A | N/A | 106.1700 | 0.0142 | 0.0004 | 106.17 | Option 2: A=7.009, B=1462.266, C=215.11 |

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

Crude Oil EFR Tanks (Wingate) - External Floating Roof Tank
Gallup, New Mexico

| Annual Emission Calculations | |
|--|------------------|
| Rim Seal Losses (lb): | 3,526.3782 |
| Seal Factor A (lb-mole/ft-yr): | 0.6000 |
| Seal Factor B (lb-mole/ft-yr (mph) ⁿ): | 0.4000 |
| Average Wind Speed (mph): | 11.8000 |
| Seal-related Wind Speed Exponent: | 1.0000 |
| Value of Vapor Pressure Function: | 0.2061 |
| Vapor Pressure at Daily Average Liquid Surface Temperature (psia): | 6.4042 |
| Tank Diameter (ft): | 134.0000 |
| Vapor Molecular Weight (lb/lb-mole): | 60.0000 |
| Product Factor: | 0.4000 |
| Withdrawal Losses (lb): | 3,914.5760 |
| Annual Net Throughput (gal/yr.): | 613,200,000.0000 |
| Shell Clingage Factor (bb/1000 sqft): | 0.0060 |
| Average Organic Liquid Density (lb/gal): | 6.3500 |
| Tank Diameter (ft): | 134.0000 |
| Roof Fitting Losses (lb): | 1,869.7650 |
| Value of Vapor Pressure Function: | 0.2061 |
| Vapor Molecular Weight (lb/lb-mole): | 60.0000 |
| Product Factor: | 0.4000 |
| Tot. Roof Fitting Loss Fact.(lb-mole/yr): | 377.9850 |
| Average Wind Speed (mph): | 11.8000 |

Total Losses (lb): 9,310.7191

| Roof Fitting/Status | Quantity | Roof Fitting Loss Factors | | m | Losses(lb) |
|--|----------|---------------------------|-------------------------------------|------|------------|
| | | KFa(lb-mole/yr) | KFb(lb-mole/(yr mph ⁿ)) | | |
| Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed | 2 | 1.60 | 0.00 | 0.00 | 15.8293 |
| Roof Drain (3-in. Diameter)/90% Closed | 1 | 1.80 | 0.14 | 1.10 | 15.9691 |
| Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Sock | 25 | 1.20 | 0.14 | 0.65 | 216.6994 |
| Roof Leg (3-in. Diameter)/Adjustable, Center Area, Sock | 33 | 0.49 | 0.16 | 0.14 | 115.0889 |
| Slotted Guide-Pole/Sample Well/Gask. Sliding Cover, w. Pole Sleeve,Wiper | 2 | 8.30 | 4.40 | 1.60 | 1,358.4453 |
| Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask. | 2 | 6.20 | 1.20 | 0.94 | 147.7329 |

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: Annual

Crude Oil EFR Tanks (Wingate) - External Floating Roof Tank
Gallup, New Mexico

| Components | Losses(lbs) | | | | Total Emissions |
|--|---------------|----------------|-------------------|----------------|-----------------|
| | Rim Seal Loss | Withdrawl Loss | Deck Fitting Loss | Deck Seam Loss | |
| Crude Oil (Four Corners Sweet - Wingate) | 3,526.38 | 3,914.58 | 1,869.76 | 0.00 | 9,310.72 |
| Isopentane | 158.91 | 51.36 | 84.26 | 0.00 | 294.53 |
| Pentane (-n) | 157.06 | 73.71 | 83.28 | 0.00 | 314.05 |
| Hexane (-n) | 50.09 | 87.06 | 26.56 | 0.00 | 163.72 |
| Benzene | 7.19 | 20.79 | 3.81 | 0.00 | 31.78 |
| Cyclohexane | 20.36 | 56.45 | 10.80 | 0.00 | 87.61 |
| 2,2,4-Trimethylpentane | 0.34 | 1.96 | 0.18 | 0.00 | 2.48 |
| Toluene | 5.87 | 61.97 | 3.11 | 0.00 | 70.95 |
| Ethylbenzene | 0.38 | 12.57 | 0.20 | 0.00 | 13.14 |
| Xylene (-m) | 1.39 | 55.67 | 0.74 | 0.00 | 57.79 |
| Isopropyl benzene | 0.03 | 2.35 | 0.02 | 0.00 | 2.40 |
| 1,2,4-Trimethylbenzene | 0.10 | 18.05 | 0.05 | 0.00 | 18.20 |
| Naphthalene | 0.00 | 4.31 | 0.00 | 0.00 | 4.31 |
| Butane | 488.21 | 57.62 | 258.86 | 0.00 | 804.70 |
| Heptane (-n) | 605.53 | 3,410.73 | 321.07 | 0.00 | 4,337.33 |

PAINTING BASICS AND EMISSION CALCULATIONS FOR TCEQ AIR QUALITY PERMIT APPLICATIONS

DECEMBER 13, 2005 (UPDATED OCTOBER 11, 2006)

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



Protecting Texas by Reducing

And

Preventing Pollution

Presented by:

Mike Coldiron, P.E. and Eddie Mack, P.E.
Texas Commission on Environmental Quality
Austin, Texas



The geometry of the part and the application equipment determine the transfer efficiency (TE), which is a measure of the amount of sprayed coating that is applied to the part. TE may be determined through several methods such as estimation from tables or charts, the volume of coating applied to a part, or through the weighing of parts and the paint pots.

Estimation of TE from tables or charts (see References 5 and 6) is the least accurate method and is presented as Table 1.

Table 1. Transfer Efficiency as a Function of Application Equipment and Part Geometry

| Application Equipment | Flat Surface | Table Leg | Bird Cage |
|----------------------------|--------------|-----------|-----------|
| Air Atomized | 50 | 15 | 10 |
| Airless | 75-80 | 10 | 10 |
| HVLP | 65 | 15 | 10 |
| Electrostatic Disk | 95 | 90-95 | 90-95 |
| Electrostatic Airless | 80 | 70 | 70 |
| Electrostatic Air Atomized | 75 | 65 | 65 |

A significant improvement in the estimation of TE can be achieved through the use of the volume of coating applied to a part. This can be determined either through the use of wet or dry film thickness, coating volume solids content, the surface area of the part, the number of parts coated, and accurately weighing the application system (paint pots, hoses and gun) before and after the coating is applied.

Table 13.2.6-1. PARTICULATE EMISSION FACTORS FOR ABRASIVE BLASTING^a

EMISSION FACTOR RATING: E

| Source | Particle size | Emission factor, lb/1,000 lb abrasive |
|---|---------------------|--|
| Sand blasting of mild steel panels ^b (SCC 3-09-002-02) | Total PM | |
| | 5 mph wind speed | 27 |
| | 10 mph wind speed | 55 |
| | 15 mph wind speed | 91 |
| | PM-10 ^c | 13 |
| | PM-2.5 ^c | 1.3 |
| Abrasive blasting of unspecified metal parts, controlled with a fabric filter ^d (SCC 3-09-002-04) | Total PM | 0.69 |

a One lb/1,000 lb is equal to 1 kg/Mg. Factors represent uncontrolled emissions, unless noted.
SCC = Source Classification Code.

b Reference 10.

c Emissions of PM-10 and PM-2.5 are not significantly wind-speed dependent.

d Reference 11. Abrasive blasting with garnet blast media.

References For Section 13.2.6

1. C. Cowherd and J. Kinsey, *Development Of Particulate And Hazardous Emission Factors For Outdoor Abrasive Blasting*, EPA Contract No. 68-D2-0159, Midwest Research Institute, Kansas City, MO, June 1995.
2. Written communication from J. D. Hansink, Barton Mines Corporation, Golden, CO, to Attendees of the American Waterways Shipyard Conference, Pedido Beach, AL, October 28, 1991.
3. South Coast Air Quality Management District, *Section 2: Unconfined Abrasive Blasting*, Draft Document, El Monte, CA, September 8, 1988.
4. A. W. Mallory, "Guidelines For Centrifugal Blast Cleaning", *J. Protective Coatings And Linings*, 1(1), June 1984.
5. B. Baldwin, "Methods Of Dust-Free Abrasive Blast Clearing", *Plant Engineering*, 32(4), February 16, 1978.
6. B. R. Appleman and J. A. Bruno, Jr., "Evaluation Of Wet Blast Cleaning Units", *J. Protective Coatings And Linings*, 2(8), August 1985.



Protective & Marine Coatings

ACROLON™ 218 HS ACRYLIC POLYURETHANE

PART A
PART A
PART B

B65-600
B65-650
B65V600

GLOSS SERIES
SEMI-GLOSS SERIES
HARDENER

Revised 8/12

PRODUCT INFORMATION

5.22

PRODUCT DESCRIPTION

ACROLON 218 HS is a low VOC, polyester modified, aliphatic, acrylic polyurethane formulated specifically for in-shop applications. Also suitable for industrial applications. A fast drying, urethane that provides color and gloss retention for exterior exposure.

- Can be used directly over organic zinc rich primers (epoxy zinc primer and moisture cure urethane zinc primer)
- Color and gloss retention for exterior exposure
- Fast dry
- Outstanding application properties

PRODUCT CHARACTERISTICS

| | |
|-----------------------------|---|
| Finish: | Gloss or Semi-Gloss |
| Color: | Wide range of colors available |
| Volume Solids: | 65% ± 2%, mixed, may vary by color |
| Weight Solids: | 78% ± 2%, mixed, may vary by color |
| VOC (EPA Method 24): | Unreduced: <300 g/L; 2.5 lb/gal mixed Reduced 10% with R7K15: <340 g/L; 2.8 lb/gal mixed Reduced 9% with MEK, R6K10: <340 g/L; 2.8 lb/gal |
| Mix Ratio: | 6:1 by volume, 1 gallon or 5 gallon mixes premeasured components |

Recommended Spreading Rate per coat:

| | Minimum | Maximum |
|--|--------------------|------------------|
| Wet mils (microns) | 4.5 (112.5) | 9.0 (225) |
| Dry mils (microns) | 3.0 (75) | 6.0 (150) |
| ~Coverage sq ft/gal (m²/L) | 175 (4.3) | 346 (8.5) |
| Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft | 1040 (25.5) | |

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 6.0 mils wet (150 microns):

| | @ 35°F/1.7°C | @ 77°F/25°C 50% RH | @ 120°F/49°C |
|---------------------------------|--------------|-----------------------|--------------|
| To touch: | 4 hours | 30 minutes | 20 minutes |
| To handle: | 18 hours | 6 hours | 4 hours |
| To recoat: | | | |
| minimum: | 18 hours | 8 hours | 6 hours |
| maximum: | 3 months | 3 months | 3 months |
| To cure: | 14 days | 7 days | 5 days |
| Pot Life: | 4 hours | 2 hours | 45 minutes |
| (reduced 5% with Reducer R7K15) | | | |
| Sweat-in-Time: | None | | |

If maximum recoat time is exceeded, abrade surface before recoating. Drying time is temperature, humidity, and film thickness dependent. Paint temperature must be at least 40°F (4.5°C) minimum.

| | |
|--------------------|---|
| Shelf Life: | Part A* - 36 months, unopened Part B - 24 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C). |
|--------------------|---|

*Aluminum (Part A, Rex # B65SW655) has a shelf life of 24 months.

| | |
|--------------------------|-------------------------------------|
| Flash Point: | 55°F (13°C), Seta, mixed |
| Reducer/Clean Up: | |
| Spray: | Reducer R7K15, MEK R6K10, or R7K111 |
| Brush / Roll: | Reducer #132, R7K132 or R7K111 |

RECOMMENDED USES

Specifically formulated for in-shop applications.

For use over prepared metal and masonry surfaces in industrial environments such as:

- Structural steel
- Rail cars and locomotives
- Conveyors
- Bridges
- Wind Towers - onshore and offshore
- Offshore platforms - exploration and production
- Suitable for use in USDA inspected facilities
- Conforms to AWWA D102 Outside Coating Systems #4 (OCS-4), #5 (OCS-5) & #6 (OCS-6)
- Acceptable for use in high performance architectural applications
- Acceptable for use over Stamped 1 and Stamped 1H Caulking
- A component of INFINITANK
- Over FIRETEX hydrocarbon systems
- Tank exteriors
- Pipelines
- Ships

PERFORMANCE CHARACTERISTICS

Substrate*: Steel

Surface Preparation*: SSPC-SP10/NACE 2

System Tested*:

- 1 ct. Macropoxy 646 @ 6.0 mils (150 microns) dft
- 1 ct. Acrolon 218 HS Gloss @ 4.0 mils (100 microns) dft

*unless otherwise noted below

| Test Name | Test Method | Results |
|---|--|---|
| Abrasion Resistance¹ | ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load | 43 mg loss |
| Adhesion | ASTM D4541 | 975 psi |
| Corrosion Weathering² | ASTM D5894, 9 cycles, 3024 hours | Rating 10 per ASTM D610, for rusting; Rating 10 per ASTM D714, for blistering |
| Direct Impact Resistance¹ | ASTM D2794 | 50 in. lb. |
| Dry Heat Resistance¹ | ASTM D2485, Method A | 200°F (93°C) |
| Flexibility¹ | ASTM D522, 180° bend, 1/8" mandrel | Passes |
| Humidity Resistance² | ASTM D4585, 100°F (38°C), 1500 hours | Rating 10 per ASTM D610, for rusting; Rating 10 per ASTM D714, for blistering |
| Pencil Hardness | ASTM D3363 | 3H |
| Salt Fog Resistance² | ASTM B117, 7000 hours | Rating 10 per ASTM D610, for rusting; Rating 9 per ASTM D714, for blistering |

Meets the requirements of SSPC Paint No. 36, Level 3 for white and light colors. Dark colors may require a clear coat.

Complies with ISO 12944-5 C5I and C5M requirements.

Footnotes:

¹ Finish coat only tested

² Primer Zinc-Clad II Plus
Intermediate Macropoxy 646
Finish Acrolon 218 HS



Protective & Marine Coatings

ACROLON™ 218 HS ACRYLIC POLYURETHANE

| | | |
|---------------|----------------|--------------------------|
| PART A | B65-600 | GLOSS SERIES |
| PART A | B65-650 | SEMI-GLOSS SERIES |
| PART B | B65V600 | HARDENER |

PRODUCT INFORMATION

5.22

RECOMMENDED SYSTEMS

| | Dry Film Thickness / ct. | |
|---|--------------------------|-------------|
| | Mils | (Microns) |
| Steel: | | |
| 1 ct. Macropoxy 646 | 5.0-10.0 | (125-250) |
| 1-2 cts. Acrolon 218 HS Polyurethane | 3.0-6.0 | (75-150) |
| Steel: | | |
| 1 ct. Zinc Clad II Plus | 3.0-5.0 | (75-125) |
| 1 ct. Macropoxy 646 | 5.0-10.0 | (125-250) |
| 1-2 cts. Acrolon 218 HS Polyurethane | 3.0-6.0 | (75-150) |
| Steel: | | |
| 1 ct. Zinc Clad IV | 3.0-5.0 | (75-125) |
| 1-2 cts. Acrolon 218 HS Polyurethane | 3.0-6.0 | (75-150) |
| Steel: | | |
| 1 ct. Corothane I-GalvaPac Zinc Primer | 3.0-4.0 | (75-100) |
| 1-2 cts. Acrolon 218 HS Polyurethane | 3.0-6.0 | (75-150) |
| Steel: | | |
| 1 ct. Epoxy Mastic Aluminum II | 6.0 | (150) |
| 1-2 cts. Acrolon 218 HS Polyurethane | 3.0-6.0 | (75-150) |
| Steel: | | |
| 1 ct. Recoatable Epoxy Primer | 4.0-6.0 | (100-150) |
| 1-2 cts. Acrolon 218 HS Polyurethane | 3.0-6.0 | (75-150) |
| Concrete/Masonry: | | |
| 1 ct. Kem Cati-Coat HS Epoxy Filler/Sealer | 10.0-20.0 | (250-500) |
| 1-2 cts. Acrolon 218 HS Polyurethane | 3.0-6.0 | (75-150) |
| Aluminum/Galvanizing: | | |
| 1 ct. DTM Wash Primer | 0.7-1.3 | (18-32) |
| 1-2 cts. Acrolon 218 HS Polyurethane | 3.0-6.0 | (75-150) |
| ISO 12944 C5M System: | | |
| 1 ct. Zinc Clad III HS | 3.0-5.0 | (75-125) |
| 1 ct. Tower Guard Epoxy | 5.0-11.5 | (125-287.5) |
| 1 ct. Acrolon 218 HS Polyurethane | 3.0-6.0 | (75-150) |
| FIRETEX ONLY: | | |
| Finish Coat for FIRETEX Hydrocarbon Systems: | | |
| 1 ct. Acrolon 218 HS Polyurethane* | | |

*Consult FIRETEX PFP Specialist for recommended dft range

The systems listed above are representative of the product's use, other systems may be appropriate.

DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.

SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Refer to product Application Bulletin for detailed surface preparation information.

Minimum recommended surface preparation:

- * Iron & Steel: SSPC-SP6/NACE 3, 1-2 mil (25-50 micron) profile
- * Galvanizing: SSPC-SP1
- * Concrete & Masonry: SSPC-SP13/NACE 6, or ICRI No. 310.2, CSP 1-3
- * Primer required

Surface Preparation Standards

| Condition of Surface | ISO 8501-1 BS7079:A1 | Swedish Std. SIS055900 | SSPC | NACE |
|----------------------|-------------------------|---------------------------|--------|------|
| White Metal | Sa 3 | Sa 3 | SP 5 | 1 |
| Near White Metal | Sa 2.5 | Sa 2.5 | SP 10 | 2 |
| Commercial Blast | Sa 2 | Sa 2 | SP 6 | 3 |
| Brush-Off Blast | Sa 1 | Sa 1 | SP 7 | 4 |
| Hand Tool Cleaning | C St 2 | C St 2 | SP 2 | - |
| Pitted & Rusty | D St 2 | D St 2 | SP 2 | - |
| Rusted | C St 3 | C St 3 | SP 3 | - |
| Power Tool Cleaning | Pitted & Rusty | D St 3 | D St 3 | SP 3 |

TINTING

Tint Part A with Maxitoner Colorants.

- Extra white tints at 100% tint strength
- Ultradeep base tints at 150% tint strength

Five minutes minimum mixing on a mechanical shaker is required for complete mixing of color.

APPLICATION CONDITIONS

| | |
|--------------------|---|
| Temperature: | 35°F (1.7°C) minimum, 120°F (49°C) maximum (air and surface) 40°F (4.5°C) minimum, 120°F (49°C) maximum (material) At least 5°F (2.8°C) above dew point |
| Relative humidity: | 85% maximum |

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

| | |
|------------|---|
| Packaging: | 1 gallon (3.78L) mix: 5 gallon (18.9L) mix: |
| Part A: | .86 gal (3.25L) 4.29 gal (16.2L) |
| Part B: | .14 gal (0.53L) 0.71 gal (2.7L) |
| | (premeasured components) |

Weight: 11.2 ± 0.2 lb/gal ; 1.3 Kg/L mixed, may vary with color

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.



Protective & Marine Coatings

ACROLON™ 218 HS ACRYLIC POLYURETHANE

| | | |
|--------|---------|-------------------|
| PART A | B65-600 | GLOSS SERIES |
| PART A | B65-650 | SEMI-GLOSS SERIES |
| PART B | B65V600 | HARDENER |

Revised 8/12

APPLICATION BULLETIN

5.22

SURFACE PREPARATIONS

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Iron & Steel

Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Commercial Blast Cleaning per SSPC-SP6/NACE 3. For better performance, use Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (1-2 mils / 25-50 microns). Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

Aluminum

Remove all oil, grease, dirt, oxide and other foreign material by Solvent Cleaning per SSPC-SP1. Primer required.

Galvanized Steel

Allow to weather a minimum of six months prior to coating. Solvent Clean per SSPC-SP1. When weathering is not possible, or the surface has been treated with chromates or silicates, first Solvent Clean per SSPC-SP1 and apply a test patch. Allow paint to dry at least one week before testing adhesion. If adhesion is poor, brush blasting per SSPC-SP7 is necessary to remove these treatments. Rusty galvanizing requires a minimum of Hand Tool Cleaning per SSPC-SP2, prime the area the same day as cleaned or before flash rusting occurs. Primer required.

Concrete and Masonry

For surface preparation, refer to SSPC-SP13/NACE 6, or ICR1 No. 310.2, CSP 1-3. Surfaces should be thoroughly clean and dry. Concrete and mortar must be cured at least 28 days @ 75°F (24°C). Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement and hardeners. Fill bug holes, air pockets and other voids with Steel-Seam FT910. Primer required.

Follow the standard methods listed below when applicable:

ASTM D4258 Standard Practice for Cleaning Concrete.
ASTM D4259 Standard Practice for Abrading Concrete.
ASTM D4260 Standard Practice for Etching Concrete.
ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete.
SSPC-SP 13/Nace 6 Surface Preparation of Concrete.
ICRI No. 310.2 Concrete Surface Preparation.

Surface Preparation Standards

| Condition of Surface | ISO 8501-1 BS7079:A1 | Swedish Std. SIS055900 | SSPC | NACE |
|----------------------|-------------------------|---------------------------|-------|------|
| White Metal | Sa 3 | Sa 3 | SP 5 | 1 |
| Near White Metal | Sa 2.5 | Sa 2.5 | SP 10 | 2 |
| Commercial Blast | Sa 2 | Sa 2 | SP 6 | 3 |
| Brush-Off Blast | Sa 1 | Sa 1 | SP 7 | 4 |
| Hand Tool Cleaning | C St 2 | C St 2 | SP 2 | - |
| Pitted & Rusted | D St 2 | D St 2 | SP 2 | - |
| Power Tool Cleaning | C St 3 | C St 3 | SP 3 | - |
| Pitted & Rusted | D St 3 | D St 3 | SP 3 | - |

APPLICATION CONDITIONS

| | |
|--------------------|---|
| Temperature: | 35°F (1.7°C) minimum, 120°F (49°C) maximum (air and surface) 40°F (4.5°C) minimum, 120°F (49°C) maximum (material) At least 5°F (2.8°C) above dew point |
| Relative humidity: | 85% maximum |

APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

Reducer/Clean Up:

| | |
|---|-------------------------------------|
| Spray..... | Reducer R7K15, MEK R6K10, or R7K111 |
| Brush/Roll | Reducer #132, R7K132, or R7K111 |
| If reducer is used, reduce at time of catalyzation. | |

Airless Spray

| | |
|----------------|--|
| Pressure..... | 2500 - 2800 psi |
| Hose..... | 3/8" ID |
| Tip | .013" - .017" |
| Filter | 60 mesh |
| Reduction..... | As needed up to 10% by volume with R7K15 or R7K111, or up to 9% with MEK, R6K10* |

Conventional Spray

| | |
|---------------------------|--|
| Gun | Binks 95 |
| Cap | 63P |
| Atomization Pressure..... | 50 - 70 psi |
| Fluid Pressure..... | 20 - 25 psi |
| Reduction..... | As needed up to 10% by volume with R7K15 or R7K111, or up to 9% with MEK, R6K10* |

Brush

| | |
|----------------|--------------------------------|
| Brush..... | Natural Bristle |
| Reduction..... | As needed up to 10% by volume* |

Roller

| | |
|----------------|--|
| Cover | 3/8" woven with solvent resistant core |
| Reduction..... | As needed up to 10% by volume* |

If specific application equipment is not listed above, equivalent equipment may be substituted.

* Note: Reducing more than maximum recommended level will result in VOC exceeding 340g/L



Protective & Marine Coatings

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| | | |
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APPLICATION BULLETIN

5.22

APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mix contents of each component thoroughly with low speed power agitation. Make certain no pigment remains on the bottom of the can. Then combine six parts by volume of Part A with one part by volume of Part B (premeasured components). Thoroughly agitate the mixture with power agitation. Re-stir before using.

If reducer is used, add only after both components have been thoroughly mixed.

Apply paint at the recommended film thickness and spreading rate as indicated below:

Recommended Spreading Rate per coat:

| | Minimum | Maximum |
|--|--------------------|------------------|
| Wet mils (microns) | 4.5 (112.5) | 9.0 (225) |
| Dry mils (microns) | 3.0 (75) | 6.0 (150) |
| ~Coverage sq ft/gal (m ² /L) | 175 (4.3) | 346 (8.5) |
| Theoretical coverage sq ft/gal (m ² /L) @ 1 mil / 25 microns dft | 1040 (25.5) | |

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 6.0 mils wet (150 microns):

| | @ 35°F/1.7°C | @ 77°F/25°C 50% RH | @ 120°F/49°C |
|--|--------------|-----------------------|--------------|
| To touch: | 4 hours | 30 minutes | 20 minutes |
| To handle: | 18 hours | 6 hours | 4 hours |
| To recoat: | | | |
| minimum: | 18 hours | 8 hours | 6 hours |
| maximum: | 3 months | 3 months | 3 months |
| To cure: | 14 days | 7 days | 5 days |
| Pot Life: | 4 hours | 2 hours | 45 minutes |
| <i>(reduced 5% with Reducer R7K15)</i> | | | |
| Sweat-in-Time: | None | | |

If maximum recoat time is exceeded, abrade surface before recoating. Drying time is temperature, humidity, and film thickness dependent. Paint temperature must be at least 40°F (4.5°C) minimum.

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with Reducer #132, R7K132. Clean tools immediately after use with Reducer #132, R7K132. Follow manufacturer's safety recommendations when using any solvent.

DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.

PERFORMANCE TIPS

Stripe coat all crevices, welds, and sharp angles to prevent early failure in these areas.

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle.

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, overthinning, climatic conditions, and excessive film build.

Excessive reduction of material can affect film build, appearance, and adhesion.

Do not apply the material beyond recommended pot life.

Do not mix previously catalyzed material with new.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with Reducer #15, R7K15 or MEK, R6K10.

Mixed coating is sensitive to water. Use water traps in all air lines. Moisture contact can reduce pot life and affect gloss and color.

Quick-Thane Urethane Accelerator is acceptable for use. See data page 5.97 for details.

E-Z Roll Urethane Defoamer is acceptable for use. See data page 5.99 for details.

Refer to Product Information sheet for additional performance characteristics and properties.

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

WARRANTY

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13.2.1.3 Predictive Emission Factor Equations^{10,29}

The quantity of particulate emissions from resuspension of loose material on the road surface due to vehicle travel on a dry paved road may be estimated using the following empirical expression:

$$E = k (sL)^{0.91} \times (W)^{1.02} \quad (1)$$

where: **E** = particulate emission factor (having units matching the units of k),
k = particle size multiplier for particle size range and units of interest (see below),
sL = road surface silt loading (grams per square meter) (g/m²), and
W = average weight (tons) of the vehicles traveling the road.

It is important to note that Equation 1 calls for the average weight of all vehicles traveling the road. For example, if 99 percent of traffic on the road are 2 ton cars/trucks while the remaining 1 percent consists of 20 ton trucks, then the mean weight "W" is 2.2 tons. More specifically, Equation 1 is *not* intended to be used to calculate a separate emission factor for each vehicle weight class. Instead, only one emission factor should be calculated to represent the "fleet" average weight of all vehicles traveling the road.

The particle size multiplier (k) above varies with aerodynamic size range as shown in Table 13.2.1-1. To determine particulate emissions for a specific particle size range, use the appropriate value of k shown in Table 13.2.1-1.

To obtain the total emissions factor, the emission factors for the exhaust, brake wear and tire wear obtained from either EPA's MOBILE6.2²⁷ or MOVES2010²⁹ model should be added to the emissions factor calculated from the empirical equation.

Table 13.2.1-1. PARTICLE SIZE MULTIPLIERS FOR PAVED ROAD EQUATION

| Size range ^a | Particle Size Multiplier k ^b | | |
|-------------------------|---|-------|---------|
| | g/VKT | g/VMT | lb/VMT |
| PM-2.5 ^c | 0.15 | 0.25 | 0.00054 |
| PM-10 | 0.62 | 1.00 | 0.0022 |
| PM-15 | 0.77 | 1.23 | 0.0027 |
| PM-30 ^d | 3.23 | 5.24 | 0.011 |

^a Refers to airborne particulate matter (PM-x) with an aerodynamic diameter equal to or less than x micrometers

^b Units shown are grams per vehicle kilometer traveled (g/VKT), grams per vehicle mile traveled (g/VMT), and pounds per vehicle mile traveled (lb/VMT). The multiplier k includes unit conversions to produce emission factors in the units shown for the indicated size range from the mixed units required in Equation 1.

^c The k-factors for PM_{2.5} were based on the average PM_{2.5}:PM₁₀ ratio of test runs in Reference 30.

^d PM-30 is sometimes termed "suspensible particulate" (SP) and is often used as a surrogate for TSP.

Equation 1 is based on a regression analysis of 83 tests for PM-10.^{3, 5-6, 8, 27-29, 31-36} Sources tested include public paved roads, as well as controlled and uncontrolled industrial paved roads. The majority of tests involved freely flowing vehicles traveling at constant speed on relatively level roads. However, 22 tests of slow moving or "stop-and-go" traffic or vehicles under load were available for inclusion in the data base.³²⁻³⁶ Engine exhaust, tire wear and break wear were subtracted from the emissions measured in the test programs prior to stepwise regression to determine Equation 1.^{37, 39} The equations retain the quality rating of A (D for PM-2.5), if applied within the range of source conditions that were tested in developing the equation as follows:

| | |
|----------------------|---|
| Silt loading: | 0.03 - 400 g/m ² 0.04 - 570 grains/square foot (ft ²) |
| Mean vehicle weight: | 1.8 - 38 megagrams (Mg) 2.0 - 42 tons |
| Mean vehicle speed: | 1 - 88 kilometers per hour (kph) 1 - 55 miles per hour (mph) |

The upper and lower 95% confidence levels of equation 1 for PM₁₀ is best described with equations using an exponents of 1.14 and 0.677 for silt loading and an exponents of 1.19 and 0.85 for weight. Users are cautioned that application of equation 1 outside of the range of variables and operating conditions specified above, e.g., application to roadways or road networks with speeds above 55 mph and average vehicle weights of 42 tons, will result in emission estimates with a higher level of uncertainty. In these situations, users are encouraged to consider an assessment of the impacts of the influence of extrapolation to the overall emissions and alternative methods that are equally or more plausible in light of local emissions data and/or ambient concentration or compositional data.

To retain the quality rating for the emission factor equation when it is applied to a specific paved road, it is necessary that reliable correction parameter values for the specific road in question be determined. With the exception of limited access roadways, which are difficult to sample, the collection and use of site-specific silt loading (sL) data for public paved road emission inventories are strongly recommended. The field and laboratory procedures for determining surface material silt content and surface dust loading are summarized in Appendices C.1 and C.2. In the event that site-specific values cannot be obtained, an appropriate value for a paved public road may be selected from the values in Table 13.2.1-2, but the quality rating of the equation should be reduced by 2 levels.

Equation 1 may be extrapolated to average uncontrolled conditions (but including natural mitigation) under the simplifying assumption that annual (or other long-term) average emissions are inversely proportional to the frequency of measurable (> 0.254 mm [0.01 inch]) precipitation by application of a precipitation correction term. The precipitation correction term can be applied on a daily or an hourly basis^{26, 38}.

For the daily basis, Equation 1 becomes:

$$E_{ext} = [k (sL)^{0.91} \times (W)^{1.02}] (1 - P/4N) \quad (2)$$

where k , sL , W , and S are as defined in Equation 1 and

E_{ext} = annual or other long-term average emission factor in the same units as k ,

P = number of "wet" days with at least 0.254 mm (0.01 in) of precipitation during the averaging period, and

N = number of days in the averaging period (e.g., 365 for annual, 91 for seasonal, 30 for monthly).

Note that the assumption leading to Equation 2 is based on analogy with the approach used to develop long-term average unpaved road emission factors in Section 13.2.2. However, Equation 2 above incorporates an additional factor of "4" in the denominator to account for the fact that paved roads dry more quickly than unpaved roads and that the precipitation may not occur over the complete 24-hour day.

For the hourly basis, equation 1 becomes:

$$E_{ext} = [k (sL)^{0.91} \times (W)^{1.02}] (1 - 1.2P/N) \quad (3)$$

where k , sL , W , and S are as defined in Equation 1 and

- E_{ext} = annual or other long-term average emission factor in the same units as k ,
- P = number of hours with at least 0.254 mm (0.01 in) of precipitation during the averaging period, and
- N = number of hours in the averaging period (e.g., 8760 for annual, 2124 for season 720 for monthly)

Note: In the hourly moisture correction term $(1 - 1.2P/N)$ for equation 3, the 1.2 multiplier is applied to account for the residual mitigative effect of moisture. For most applications, this equation will produce satisfactory results. Users should select a time interval to include sufficient "dry" hours such that a reasonable emissions averaging period is evaluated. For the special case where this equation is used to calculate emissions on an hour by hour basis, such as would be done in some emissions modeling situations, the moisture correction term should be modified so that the moisture correction "credit" is applied to the first hours following cessation of precipitation. In this special case, it is suggested that this 20% "credit" be applied on a basis of one hour credit for each hour of precipitation up to a maximum of 12 hours.

Note that the assumption leading to Equation 3 is based on analogy with the approach used to develop long-term average unpaved road emission factors in Section 13.2.2.

Figure 13.2.1-2 presents the geographical distribution of "wet" days on an annual basis for the United States. Maps showing this information on a monthly basis are available in the *Climatic Atlas of the United States*²³. Alternative sources include other Department of Commerce publications (such as local climatological data summaries). The National Climatic Data Center (NCDC) offers several products that provide hourly precipitation data. In particular, NCDC offers *Solar and Meteorological Surface Observation Network 1961-1990* (SAMSON) CD-ROM, which contains 30 years worth of hourly meteorological data for first-order National Weather Service locations. Whatever meteorological data are used, the source of that data and the averaging period should be clearly specified.

It is emphasized that the simple assumption underlying Equations 2 and 3 has not been verified in any rigorous manner. For that reason, the quality ratings for Equations 2 and 3 should be downgraded one letter from the rating that would be applied to Equation 1.

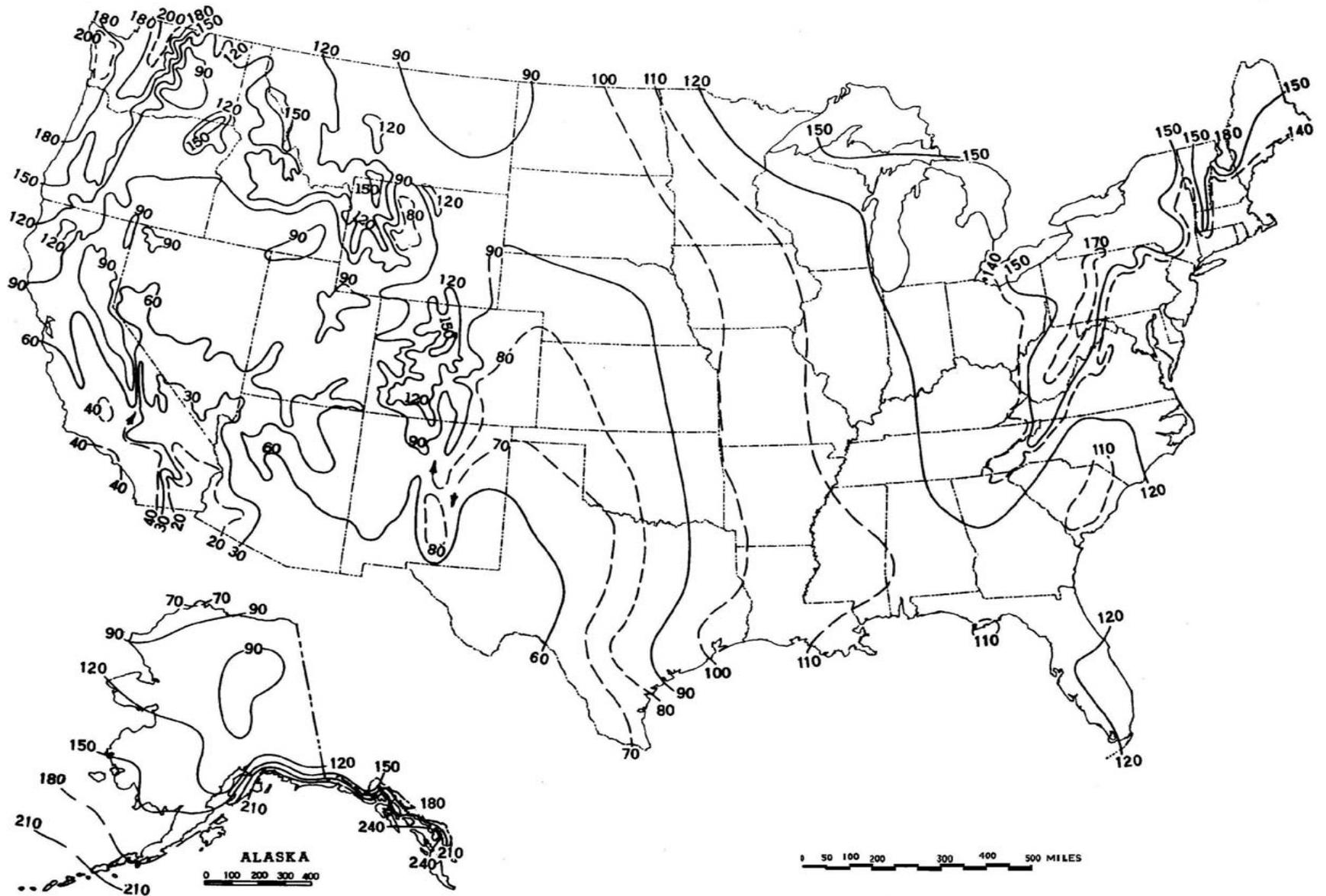


Figure 13.2.1-2. Mean number of days with 0.01 inch or more of precipitation in the United States.

Table 13.2.1-2 presents recommended default silt loadings for normal baseline conditions and for wintertime baseline conditions in areas that experience frozen precipitation with periodic application of antiskid material²⁴. The winter baseline is represented as a multiple of the non-winter baseline, depending on the ADT value for the road in question. As shown, a multiplier of 4 is applied for low volume roads (< 500 ADT) to obtain a wintertime baseline silt loading of 4 X 0.6 = 2.4 g/m².

Table 13.2.1-2. Ubiquitous Silt Loading Default Values with Hot Spot Contributions from Anti-Skid Abrasives (g/m²)

| ADT Category | < 500 | 500-5,000 | 5,000-10,000 | > 10,000 |
|--|-------|-----------|--------------|------------------------------|
| Ubiquitous Baseline g/m ² | 0.6 | 0.2 | 0.06 | 0.03 0.015 limited access |
| Ubiquitous Winter Baseline Multiplier during months with frozen precipitation | X4 | X3 | X2 | X1 |
| Initial peak additive contribution from application of antiskid abrasive (g/m ²) | 2 | 2 | 2 | 2 |
| Days to return to baseline conditions (assume linear decay) | 7 | 3 | 1 | 0.5 |

It is suggested that an additional (but temporary) silt loading contribution of 2 g/m² occurs with each application of antiskid abrasive for snow/ice control. This was determined based on a typical application rate of 500 lb per lane mile and an initial silt content of 1 % silt content. Ordinary rock salt and other chemical deicers add little to the silt loading, because most of the chemical dissolves during the snow/ice melting process.

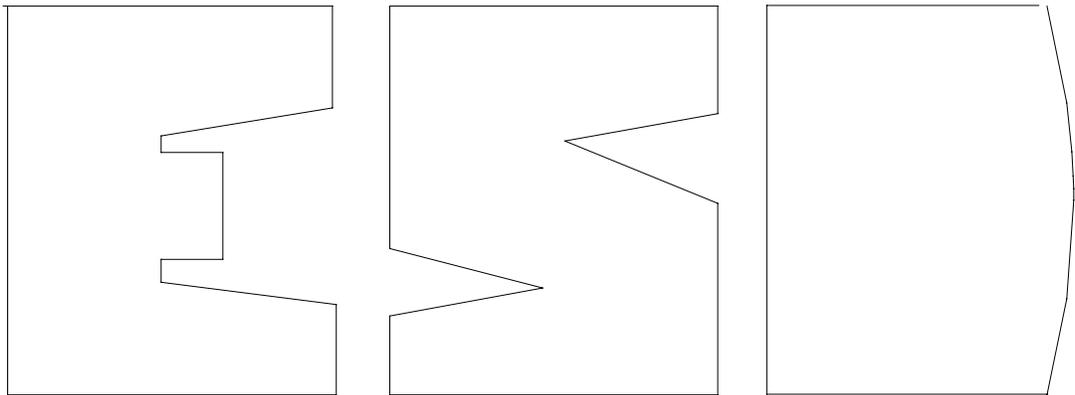
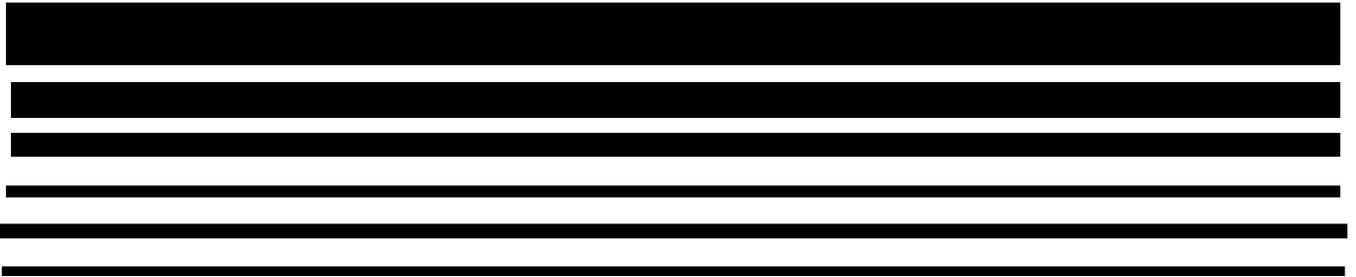
To adjust the baseline silt loadings for mud/dirt trackout, the number of trackout points is required. It is recommended that in calculating PM₁₀ emissions, six additional miles of road be added for each active trackout point from an active construction site, to the paved road mileage of the specified category within the county. In calculating PM_{2.5} emissions, it is recommended that three additional miles of road be added for each trackout point from an active construction site.

It is suggested the number of trackout points for activities other than road and building construction areas be related to land use. For example, in rural farming areas, each mile of paved road would have a specified number of trackout points at intersections with unpaved roads. This value could be estimated from the unpaved road density (mi/sq. mi.).

The use of a default value from Table 13.2.1-2 should be expected to yield only an order-of-magnitude estimate of the emission factor. Public paved road silt loadings are dependent



Protocol for Equipment Leak Emission Estimates



1995 Protocol for Equipment Leak Emission Estimates

Emission Standards Division

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Air and Radiation
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

November 1995

TABLE 2-4. OIL AND GAS PRODUCTION OPERATIONS AVERAGE EMISSION FACTORS (kg/hr/source)

| Equipment Type | Service ^a | Emission Factor (kg/hr/source) ^b |
|---------------------|----------------------|---|
| Valves | Gas | 4.5E-03 |
| | Heavy Oil | 8.4E-06 |
| | Light Oil | 2.5E-03 |
| | Water/Oil | 9.8E-05 |
| Pump seals | Gas | 2.4E-03 |
| | Heavy Oil | NA |
| | Light Oil | 1.3E-02 |
| | Water/Oil | 2.4E-05 |
| Others ^c | Gas | 8.8E-03 |
| | Heavy Oil | 3.2E-05 |
| | Light Oil | 7.5E-03 |
| | Water/Oil | 1.4E-02 |
| Connectors | Gas | 2.0E-04 |
| | Heavy Oil | 7.5E-06 |
| | Light Oil | 2.1E-04 |
| | Water/Oil | 1.1E-04 |
| Flanges | Gas | 3.9E-04 |
| | Heavy Oil | 3.9E-07 |
| | Light Oil | 1.1E-04 |
| | Water/Oil | 2.9E-06 |
| Open-ended lines | Gas | 2.0E-03 |
| | Heavy Oil | 1.4E-04 |
| | Light Oil | 1.4E-03 |
| | Water/Oil | 2.5E-04 |

^aWater/Oil emission factors apply to water streams in oil service with a water content greater than 50%, from the point of origin to the point where the water content reaches 99%. For water streams with a water content greater than 99%, the emission rate is considered negligible.

^bThese factors are for total organic compound emission rates (including non-VOC's such as methane and ethane) and apply to light crude, heavy crude, gas plant, gas production, and off shore facilities. "NA" indicates that not enough data were available to develop the indicated emission factor.

^cThe "other" equipment type was derived from compressors, diaphragms, drains, dump arms, hatches, instruments, meters, pressure relief valves, polished rods, relief valves, and vents. This "other" equipment type should be applied for any equipment type other than connectors, flanges, open-ended lines, pumps, or valves.

loading operation, resulting in high levels of vapor generation and loss. If the turbulence is great enough, liquid droplets will be entrained in the vented vapors.

A second method of loading is submerged loading. Two types are the submerged fill pipe method and the bottom loading method. In the submerged fill pipe method, the fill pipe extends almost to the bottom of the cargo tank. In the bottom loading method, a permanent fill pipe is attached to the cargo tank bottom. During most of submerged loading by both methods, the fill pipe opening is below the liquid surface level. Liquid turbulence is controlled significantly during submerged loading, resulting in much lower vapor generation than encountered during splash loading.

The recent loading history of a cargo carrier is just as important a factor in loading losses as the method of loading. If the carrier has carried a nonvolatile liquid such as fuel oil, or has just been cleaned, it will contain vapor-free air. If it has just carried gasoline and has not been vented, the air in the carrier tank will contain volatile organic vapors, which will be expelled during the loading operation along with newly generated vapors.

Cargo carriers are sometimes designated to transport only one product, and in such cases are practicing "dedicated service". Dedicated gasoline cargo tanks return to a loading terminal containing air fully or partially saturated with vapor from the previous load. Cargo tanks may also be "switch loaded" with various products, so that a nonvolatile product being loaded may expel the vapors remaining from a previous load of a volatile product such as gasoline. These circumstances vary with the type of cargo tank and with the ownership of the carrier, the petroleum liquids being transported, geographic location, and season of the year.

One control measure for vapors displaced during liquid loading is called "vapor balance service", in which the cargo tank retrieves the vapors displaced during product unloading at bulk plants or service stations and transports the vapors back to the loading terminal. Figure 5.2-5 shows a tank truck in vapor balance service filling a service station underground tank and taking on displaced gasoline vapors for return to the terminal. A cargo tank returning to a bulk terminal in vapor balance service normally is saturated with organic vapors, and the presence of these vapors at the start of submerged loading of the tanker truck results in greater loading losses than encountered during nonvapor balance, or "normal", service. Vapor balance service is usually not practiced with marine vessels, although some vessels practice emission control by means of vapor transfer within their own cargo tanks during ballasting operations, discussed below.

Emissions from loading petroleum liquid can be estimated (with a probable error of ± 30 percent)⁴ using the following expression:

$$L_L = 12.46 \frac{SPM}{T} \quad (1)$$

where:

L_L = loading loss, pounds per 1000 gallons ($\text{lb}/10^3 \text{ gal}$) of liquid loaded

S = a saturation factor (see Table 5.2-1)

P = true vapor pressure of liquid loaded, pounds per square inch absolute (psia)
(see Section 7.1, "Organic Liquid Storage Tanks")

M = molecular weight of vapors, pounds per pound-mole ($\text{lb}/\text{lb-mole}$) (see Section 7.1, "Organic Liquid Storage Tanks")

T = temperature of bulk liquid loaded, $^{\circ}\text{R}$ ($^{\circ}\text{F} + 460$)

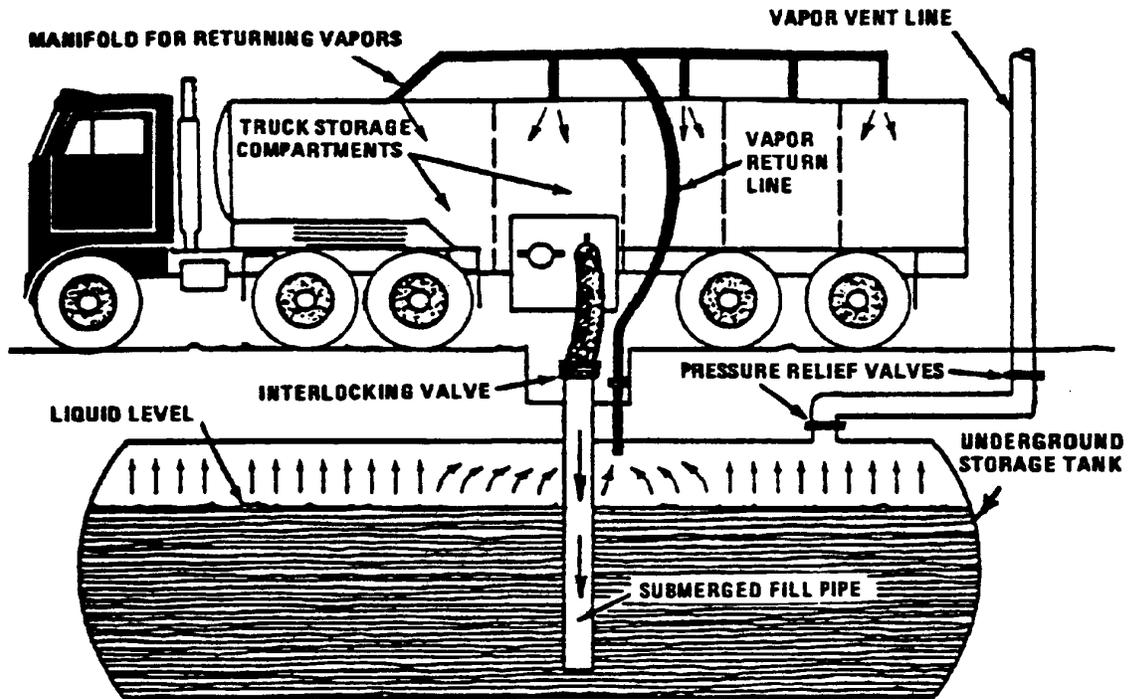


Figure 5.2-5. Tank truck unloading into a service station underground storage tank and practicing "vapor balance" form of emission control.

Table 5.2-1. SATURATION (S) FACTORS FOR CALCULATING PETROLEUM LIQUID LOADING LOSSES

| Cargo Carrier | Mode Of Operation | S Factor |
|--------------------------------|--|----------|
| Tank trucks and rail tank cars | Submerged loading of a clean cargo tank | 0.50 |
| | Submerged loading: dedicated normal service | 0.60 |
| | Submerged loading: dedicated vapor balance service | 1.00 |
| | Splash loading of a clean cargo tank | 1.45 |
| | Splash loading: dedicated normal service | 1.45 |
| | Splash loading: dedicated vapor balance service | 1.00 |
| Marine vessels ^a | Submerged loading: ships | 0.2 |
| | Submerged loading: barges | 0.5 |

^a For products other than gasoline and crude oil. For marine loading of gasoline, use factors from Table 5.2-2. For marine loading of crude oil, use Equations 2 and 3 and Table 5.2-3.



Barry R. McBee, Chairman
R. B. "Ralph" Marquez, Commissioner
John M. Baker, Commissioner

Jeffrey A. Saitas, P.E., Executive Director

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Chapter 2—Types of Flare and Oxidizer Systems

This document provides guidance for two classes of vapor combustion control devices: flares and vapor oxidizers. While there may be some overlap between the two, flares have generally been treated separately by the EPA and the TNRCC, in large part because flares have an open flame and often cannot be sampled, so emissions are estimated based on the results of flare testing performed in the early 1980s. Each of the two classes will be dealt with separately in each of the chapters of this document.

Combustion Control Devices NOT Discussed. This document will not cover permitting of RCRA or BIF units because the requirements for these units often go beyond the requirements for state air permitting. Incinerators used to treat solid wastes are covered in another technical guidance document, *Incinerators*. Guidance for combustion control devices associated with spray paint booths, coatings operations, and semiconductor facilities should be obtained by calling the TNRCC New Source Review Permits Division at (512) 239-1250.

Flares

Flare systems generally are open-flame control devices used for disposing of waste gas streams during both routine process and emergency or upset conditions. In addition to simple, unassisted flares, typical smokeless flare systems include, but are not limited to, the following:

- **Enclosed Flares/Vapor Combustors.** Enclosed flares are used in disposing of waste gas streams in instances where a visible flame is unacceptable. Applications include chemical processing, petroleum refining and production, and municipal waste gas treatment. These may be referred to as vapor combustors and can have more than one burner in the stack.
- **Steam-Assisted Flares.** Steam-assisted flares are used in disposing of low-pressure waste gas streams when steam is available and practical to minimize smoking from the flare. Applications are similar to those of enclosed flares. Flares might also be assisted with natural gas if readily available on site; these flares would undergo a case-by-case review.
- **Air-Assisted Flares.** Air-assisted flares are used in disposing of low-pressure waste gas streams when practical or when steam utilities are not available to minimize smoking from the flare. Applications include chemical processing, petroleum refining and production, and pipeline transportation.
- **Sonic Flares.** Sonic flares are used in disposing of high-pressure waste gas streams. Applications include gas production, pipeline transportation, and treatment plants.

Chapter 5—Emission Factors, Efficiencies, and Calculations

This chapter provides detailed instructions for the calculations necessary to verify BACT and estimate emissions from flares and vapor oxidizers. Flares must be checked to determine whether they will satisfy the flow and thermal requirements of 40 CFR § 60.18, and their emissions are determined by the use of emission factors. Example calculations are provided for these flare calculations.

Oxidizer emissions are determined by using previous sampling results or emission factors from the manufacturer or AP-42. These calculations are very similar to the flare calculations and are only discussed in general terms.

Flares: Introduction

Although emissions from emergency flares are not included in a permit when it is issued, emissions should be estimated for both routine process flares and emergency flares. Sometimes, emissions of routine pilot gas combustion may be included in an issued permit for emergency flares (although not required).

In this section, the *flare* emission factors and destruction efficiencies are presented first. This information is followed by sample *calculations* that demonstrate how to ensure that the requirements of 40 CFR § 60.18 are satisfied and how to estimate emissions from a flare. Flare data in Attachment B (typical refinery flare) will be used as a basis in most of the following calculations. Flare data in Attachment C (acid gas flare) will be used as a basis in the example calculations for SO₂ emissions.

Flare Emission Factors

The usual flare destruction efficiencies and emission factors are provided in Table 4. The high-Btu waste streams referred to in the table have a heating value greater than 1,000 Btu/scf.

Flare Destruction Efficiencies

Claims for destruction efficiencies greater than those listed in Table 4 will be considered on a case-by-case basis. The applicant may make one of the three following demonstrations to justify the higher destruction efficiency: (1) general method, (2) 99.5 percent justification, or (3) flare stack sampling.

Table 4. Flare Factors

| Waste Stream | Destruction/Removal Efficiency (DRE) | | | | | | | | | | | | |
|-------------------------|---|-----------------|----------|-----------------|--|---------|-----------------|--------|----------|-----------------|--|---------|-----------------|
| VOC | 98 percent (generic) 99 percent for compounds containing no more than 3 carbons that contain no elements other than carbon and hydrogen in addition to the following compounds: methanol, ethanol, propanol, ethylene oxide and propylene oxide | | | | | | | | | | | | |
| H ₂ S | 98 percent | | | | | | | | | | | | |
| NH ₃ | case by case | | | | | | | | | | | | |
| CO | case by case | | | | | | | | | | | | |
| Air Contaminants | Emission Factors | | | | | | | | | | | | |
| thermal NO _x | <table> <tr> <td>steam-assist:</td> <td>high Btu</td> <td>0.0485 lb/MMBtu</td> </tr> <tr> <td></td> <td>low Btu</td> <td>0.068 lb/MMBtu</td> </tr> <tr> <td>other:</td> <td>high Btu</td> <td>0.138 lb/MMBtu</td> </tr> <tr> <td></td> <td>low Btu</td> <td>0.0641 lb/MMBtu</td> </tr> </table> | steam-assist: | high Btu | 0.0485 lb/MMBtu | | low Btu | 0.068 lb/MMBtu | other: | high Btu | 0.138 lb/MMBtu | | low Btu | 0.0641 lb/MMBtu |
| steam-assist: | high Btu | 0.0485 lb/MMBtu | | | | | | | | | | | |
| | low Btu | 0.068 lb/MMBtu | | | | | | | | | | | |
| other: | high Btu | 0.138 lb/MMBtu | | | | | | | | | | | |
| | low Btu | 0.0641 lb/MMBtu | | | | | | | | | | | |
| fuel NO _x | NO _x is 0.5 wt percent of inlet NH ₃ , other fuels case by case | | | | | | | | | | | | |
| CO | <table> <tr> <td>steam-assist:</td> <td>high Btu</td> <td>0.3503 lb/MMBtu</td> </tr> <tr> <td></td> <td>low Btu</td> <td>0.3465 lb/MMBtu</td> </tr> <tr> <td>other:</td> <td>high Btu</td> <td>0.2755 lb/MMBtu</td> </tr> <tr> <td></td> <td>low Btu</td> <td>0.5496 lb/MMBtu</td> </tr> </table> | steam-assist: | high Btu | 0.3503 lb/MMBtu | | low Btu | 0.3465 lb/MMBtu | other: | high Btu | 0.2755 lb/MMBtu | | low Btu | 0.5496 lb/MMBtu |
| steam-assist: | high Btu | 0.3503 lb/MMBtu | | | | | | | | | | | |
| | low Btu | 0.3465 lb/MMBtu | | | | | | | | | | | |
| other: | high Btu | 0.2755 lb/MMBtu | | | | | | | | | | | |
| | low Btu | 0.5496 lb/MMBtu | | | | | | | | | | | |
| PM | none, required to be smokeless | | | | | | | | | | | | |
| SO ₂ | 100 percent S in fuel to SO ₂ | | | | | | | | | | | | |

*The only exception of this is if inorganics might be emitted from the flare. In the case of landfills, the AP-42 PM factor may be used. In other cases, the emissions should be based on the composition of the waste stream routed to the flare.

TABLE 1.4-2. EMISSION FACTORS FOR CRITERIA POLLUTANTS AND GREENHOUSE GASES FROM NATURAL GAS COMBUSTION^a

| Pollutant | Emission Factor (lb/10 ⁶ scf) | Emission Factor Rating |
|--|--|------------------------|
| CO ₂ ^b | 120,000 | A |
| Lead | 0.0005 | D |
| N ₂ O (Uncontrolled) | 2.2 | E |
| N ₂ O (Controlled-low-NO _x burner) | 0.64 | E |
| PM (Total) ^c | 7.6 | D |
| PM (Condensable) ^c | 5.7 | D |
| PM (Filterable) ^c | 1.9 | B |
| SO ₂ ^d | 0.6 | A |
| TOC | 11 | B |
| Methane | 2.3 | B |
| VOC | 5.5 | C |

^a Reference 11. Units are in pounds of pollutant per million standard cubic feet of natural gas fired. Data are for all natural gas combustion sources. To convert from lb/10⁶ scf to kg/10⁶ m³, multiply by 16. To convert from lb/10⁶ scf to lb/MMBtu, divide by 1,020. The emission factors in this table may be converted to other natural gas heating values by multiplying the given emission factor by the ratio of the specified heating value to this average heating value. TOC = Total Organic Compounds.

VOC = Volatile Organic Compounds.

^b Based on approximately 100% conversion of fuel carbon to CO₂. CO₂[lb/10⁶ scf] = (3.67) (CON) (C)(D), where CON = fractional conversion of fuel carbon to CO₂, C = carbon content of fuel by weight (0.76), and D = density of fuel, 4.2x10⁴ lb/10⁶ scf.

^c All PM (total, condensable, and filterable) is assumed to be less than 1.0 micrometer in diameter. Therefore, the PM emission factors presented here may be used to estimate PM₁₀, PM_{2.5} or PM₁ emissions. Total PM is the sum of the filterable PM and condensable PM. Condensable PM is the particulate matter collected using EPA Method 202 (or equivalent). Filterable PM is the particulate matter collected on, or prior to, the filter of an EPA Method 5 (or equivalent) sampling train.

^d Based on 100% conversion of fuel sulfur to SO₂.

Assumes sulfur content is natural gas of 2,000 grains/10⁶ scf. The SO₂ emission factor in this table can be converted to other natural gas sulfur contents by multiplying the SO₂ emission factor by the ratio of the site-specific sulfur content (grains/10⁶ scf) to 2,000 grains/10⁶ scf.

Section 8

Map(s)

A map such as a 7.5 minute topographic quadrangle showing the exact location of the source. The map shall also include the following:

| | |
|--|--|
| The UTM or Longitudinal coordinate system on both axes | An indicator showing which direction is north |
| A minimum radius around the plant of 0.8km (0.5 miles) | Access and haul roads |
| Topographic features of the area | Facility property boundaries |
| The name of the map | The area which will be restricted to public access |
| A graphical scale | |

A map showing the location of the facility is attached.

Section 9

Proof of Public Notice

(for NSR applications submitting under 20.2.72 or 20.2.74 NMAC)

(This proof is required by: 20.2.72.203.A.14 NMAC “Documentary Proof of applicant’s public notice”)

I have read the AQB “Guidelines for Public Notification for Air Quality Permit Applications”

This document provides detailed instructions about public notice requirements for various permitting actions. It also provides public notice examples and certification forms. Material mistakes in the public notice will require a re-notice before issuance of the permit.

Unless otherwise allowed elsewhere in this document, the following items document proof of the applicant’s Public Notification. Please include this page in your proof of public notice submittal with checkmarks indicating which documents are being submitted with the application.

New Permit and **Significant Permit Revision** public notices must include all items in this list.

Technical Revision public notices require only items 1, 5, 9, and 10.

Per the Guidelines for Public Notification document mentioned above, include:

1. A copy of the certified letter receipts with post marks (20.2.72.203.B NMAC)
2. A list of the places where the public notice has been posted in at least four publicly accessible and conspicuous places, including the proposed or existing facility entrance. (e.g: post office, library, grocery, etc.)
3. A copy of the property tax record (20.2.72.203.B NMAC).
4. A sample of the letters sent to the owners of record.
5. A sample of the letters sent to counties, municipalities, and Indian tribes.
6. A sample of the public notice posted and a verification of the local postings.
7. A table of the noticed citizens, counties, municipalities and tribes and to whom the notices were sent in each group.
8. A copy of the public service announcement (PSA) sent to a local radio station and documentary proof of submittal.
9. A copy of the classified or legal ad including the page header (date and newspaper title) or its affidavit of publication stating the ad date, and a copy of the ad. When appropriate, this ad shall be printed in both English and Spanish.
10. A copy of the display ad including the page header (date and newspaper title) or its affidavit of publication stating the ad date, and a copy of the ad. When appropriate, this ad shall be printed in both English and Spanish.
11. A map with a graphic scale showing the facility boundary and the surrounding area in which owners of record were notified by mail. This is necessary for verification that the correct facility boundary was used in determining distance for notifying land owners of record.

All required items for public notice are attached.

Section 9

Proof of Public Notice

(For NSR applications submitting under 20.2.72 or 20.2.74 NMAC)

(This proof is required by: 20.2.72.203.A.14 NMAC “Documentary Proof of applicant’s public notice”)

- I have read the AQB “Guidelines for Public Notification for Air Quality Permit Applications”**
This document provides detailed instructions about public notice requirements for various permitting actions. It also provides public notice examples and certification forms. Material mistakes in the public notice will require a re-notice before issuance of the permit.
-

Unless otherwise allowed elsewhere in this document, the following items document proof of the applicant’s Public Notification. Please include this page in your proof of public notice submittal with checkmarks indicating which documents are being submitted with the application.

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 4. A sample of the letters sent to the owners of record.
 5. A sample of the letters sent to counties, municipalities, and Indian tribes.
 6. A sample of the public notice posted and a verification of the local postings.
 7. A table of the noticed citizens, counties, municipalities and tribes and to whom the notices were sent in each group.
 8. A copy of the public service announcement (PSA) sent to a local radio station and documentary proof of submittal.
 9. A copy of the classified or legal ad including the page header (date and newspaper title) or its affidavit of publication stating the ad date, and a copy of the ad. When appropriate, this ad shall be printed in both English and Spanish.
 10. A copy of the display ad including the page header (date and newspaper title) or its affidavit of publication stating the ad date, and a copy of the ad. When appropriate, this ad shall be printed in both English and Spanish.
 11. A map with a graphic scale showing the facility boundary and the surrounding area in which owners of record were notified by mail. This is necessary for verification that the correct facility boundary was used in determining distance for notifying land owners of record.
-

Section 9.1

Copy of Postmarked Certified Letter Receipts

7014 2870 0001 4723 1166

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

| | | | |
|---|----|--|------------------|
| Postage | \$ | | Postmark Here |
| Certified Fee | | | |
| Return Receipt Fee (Endorsement Required) | | | |
| Restricted Delivery Fee (Endorsement Required) | | | |
| Total Postage & Fees | \$ | | |

Sent To
 Street & Apt.
 or PO Box No.
 City, State, ZIP+4®

Navajo Nation
 PO Box 9000
 Window Rock, AZ 86515

PS Form 3800, See Reverse for Instructions

7014 2870 0001 4723 1142

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

| | | | |
|---|----|--|------------------|
| Postage | \$ | | Postmark Here |
| Certified Fee | | | |
| Return Receipt Fee (Endorsement Required) | | | |
| Restricted Delivery Fee (Endorsement Required) | | | |
| Total Postage & Fees | \$ | | |

Sent To
 Street & Apt.
 or PO Box No.
 City, State, ZIP+4®

87322 Holding LLC
 126 Ottawa NW Ste. 500
 Grand Rapids, MI 49503

PS Form 3800, See Reverse for Instructions

7014 2870 0001 4723 1159

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

| | | | |
|---|----|--|------------------|
| Postage | \$ | | Postmark Here |
| Certified Fee | | | |
| Return Receipt Fee (Endorsement Required) | | | |
| Restricted Delivery Fee (Endorsement Required) | | | |
| Total Postage & Fees | \$ | | |

Sent To
 Street & Apt.
 or PO Box No.
 City, State, ZIP+4®

J&B Hamilton, LLC
 PO Box 2558
 Gallup, NM 87305

PS Form 3800, See Reverse for Instructions

7014 2870 0001 4723 1395

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

| | | | |
|---|----|--|------------------|
| Postage | \$ | | Postmark Here |
| Certified Fee | | | |
| Return Receipt Fee (Endorsement Required) | | | |
| Restricted Delivery Fee (Endorsement Required) | | | |
| Total Postage & Fees | \$ | | |

Sent To
 Street & Apt.
 or PO Box No.
 City, State, ZIP+4®

City of Gallup
 Manager's Office
 110 W. Aztec Ave.
 Gallup, NM 87301

PS Form 3800, See Reverse for Instructions

7014 2870 0001 4723 1401

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

| | | | |
|---|----|--|------------------|
| Postage | \$ | | Postmark Here |
| Certified Fee | | | |
| Return Receipt Fee (Endorsement Required) | | | |
| Restricted Delivery Fee (Endorsement Required) | | | |
| Total Postage & Fees | \$ | | |

Sent To
 Street & Apt.
 or PO Box No.
 City, State, ZIP+4®

McKinley County
 Manager's Office
 207 West Hill St.
 Gallup, NM 87301

PS Form 3800, See Reverse for Instructions

7014 2870 0001 4723 1418

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

| | | | |
|---|----|--|------------------|
| Postage | \$ | | Postmark Here |
| Certified Fee | | | |
| Return Receipt Fee (Endorsement Required) | | | |
| Restricted Delivery Fee (Endorsement Required) | | | |
| Total Postage & Fees | \$ | | |

Sent To
 Street & Apt.
 or PO Box No.
 City, State, ZIP+4®

Rehoboth Christian School
 Association
 PO Box 41
 Rehoboth, NM 87322

PS Form 3800, See Reverse for Instructions

Section 9.2

Public Notice Posting Locations

This information is provided in *Section 9.6: General Public Notice Posting – Certification*.

Section 9.3

Property Tax Record

http://eagleweb.co.mckinley.nm.us/assessor/taxweb/results.jsp

Google mckinley county assessor

McKinley County

Account Search | Help? | Logout Public

Search Results

Sort Search Results

Account Number

Sort Order

Ascending

Printer friendly view

Query: Section=16 and Township=15 and Range=17

Showing 3 results on 1 page

| Account# | Summary | Picture |
|----------|--|--|
| R056050 | 2-100-088-139-141 87322 HOLDINGS, LLC GALLUP 87301 | TRACT D-2, REHOBOTH CHRISTIAN SCHOOL ANNEXATION, CONT. ... |
| R055107 | 2-101-088-005-180 REHOBOTH CHRISTIAN SCHOOL ASSOCIATION REHOBOTH CAMPUS AREA 87322 | REHOBOTH CHRISTIAN SCHOOL TRACT, REHOBOTH CHRISTIAN SCH... |
| R645486 | 2-100-088-173-357 J & B HAMILTON, LLC | TRACT A-2, LYING N. OF I-40 & E. OF THE STATE POLICE BA...  |

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Account: R056050

| Location | Owner Information | Assessment History |
|--|---|---|
| Parcel Number 2-100-088-139-141 Tax Area 120 - INSIDE NON-RES - 120 Situs Address | Owner Name 87322 HOLDINGS, LLC Owner Address 126 OTTAWA NW, SUITE 500 GRAND RAPIDS, MI 49603-0000 | Actual Value (2015) \$72,040 Primary Taxable \$24,013 Tax Area: 120 Mill Levy: 41.554 |
| Legal Summary TRACT D-2, REHOBOTH CHRISTIAN SCHOOL ANNEXATION, CONT. 177.988 ACRES MIL SURVEY PLAT FILED IN BK 25 PG 2506 8/4/05 FINAL PLAT BK 28 PG 5933 03/28/07 PLAT DOC 346247 08/17/09 PLAT DOC 351989 11/23/10 DOC 352009 11/30/10 PLAT DOC 366091 01/10/14 DOC 366090 01/10/14 CODE 2-100-088-139-141 | | Type Actual Assessed Acres SQFT Units LAND \$72,040 \$24,013 177.988 0.000 0.000 |
| Tax History | Taxes | Images |
| 2015 | \$997.84 | |
| 2014 | \$997.84 | |

* Estimated

Account: R055107

| Location | Owner Information | Assessment History |
|---|--|--|
| Parcel Number 2-101-088-005-180 Tax Area 120 - INSIDE NON-RES - 120 Situs Address | Owner Name REHOBOTH CHRISTIAN SCHOOL ASSOCIATION Owner Address P.O. BOX 41 REHOBOTH, NM 87322-0041 | Actual Value (2015) \$209,330 Primary Taxable \$69,797 Exempt (\$69,797) Total Taxable \$0 Tax Area: 120 Mill Levy: 41.554 |
| Legal Summary REHOBOTH CHRISTIAN SCHOOL TRACT, REHOBOTH CHRISTIAN SCHOOL ANNEXATION, CONT. 148.877 ACRES MIL BK 16 PGS 2522-2531 2/2/01 FINAL PLAT BK 28 PG 4821 03/09/07 PLAT DOC 346247 08/17/09 PLAT DOC 364368 08/16/13 PLAT DOC 366091 01/10/14 DOC 366090 01/10/14 DOC 369898 12/19/14 CODE 2-101-088-005-180 | | Type Actual Assessed Acres SQFT Units EXEMPT - LAND \$60,300 \$20,100 148.877 0.000 0.000 EXEMPT - BUILDING \$149,090 \$49,697 0.000 0.000 0.000 |
| Tax History | Taxes | Images |
| 2015 | \$0.00 | |
| 2014 | \$0.00 | |

* Estimated

| Location | Owner Information | Assessment History |
|--|--|--|
| Parcel Number 2-100-088-173-357 Tax Area 120 - INSIDE NON-RES - 120 Situs Address | Owner Name J & B HAMILTON, LLC Owner Address P.O. BOX 2558 GALLUP, NM 87305-2558 | Actual Value (2015) \$478,841 Primary Taxable \$159,613 Tax Area: 120 Mill Levy: 41.554 |
| Legal Summary TRACT A-2, LYING N. OF I-40 & E. OF THE STATE POLICE BARRACKS, REHOBOTH CHRISTIAN SCHOOL ANNEXATION, CONT. 31.528 ACRES MIL BK 25 PSS 4989-89 9/16/05 PLAT DOC 361947 01/30/13 PLAT DOC 366091 01/10/14 DOC 366090 01/10/14 CODE 2-100-088-173-357 | | Type Actual Assessed Acres SQFT LAND \$315,280 \$105,093 31.528 BUILDING \$163,561 \$54,520 1800.000 |
| Tax History | Taxes | Images |
| 2015 | \$6,632.56 |  |
| 2014 | \$6,994.56 | |

* Estimated

Section 9.4 & 9.5

Letter sent to owners of record and Letter sent to counties, municipalities, and Indian tribes

The letter provided on the following page was sent to the following owners of record:

| Land Owner | Street Address | City | State | Zip |
|---------------------------------------|------------------------|--------------|-------|-------|
| Rehoboth Christian School Association | PO Box 41 | Rehoboth | NM | 87322 |
| 87322 Holding, LLC | 126 Ottawa NW Ste. 500 | Grand Rapids | MI | 49503 |
| J&B Hamilton, LLC | PO Box 2558 | Gallup | NM | 87305 |

The letter provided on the following page was sent to the following counties, municipalities, and Indian tribes:

| Landowners and Municipalities | | Street Address | City | State | Zip |
|-------------------------------|------------------|-------------------|-------------|-------|-------|
| City of Gallup | Manager's Office | 110 W. Aztec Ave. | Gallup | NM | 87301 |
| McKinley County | Manager's Office | 207 West Hill St. | Gallup | NM | 87301 |
| Navajo Nation | | PO Box 9000 | Window Rock | AZ | 86515 |

June 16, 2015

Via Certified Mail

To Whom It May Concern:

Western Refining Southwest, Inc. announces its intent to apply to the New Mexico Environment Department for an air quality permit for the modification of its crude transloading facility. The expected date of application submittal to the Air Quality Bureau is June 17, 2015. This notice is a requirement according to New Mexico air quality regulations.

The exact location for the facility known as, Western Refining Wingate Facility, is at #68 El Paso Circle, Gallup, NM 87301. The approximate location of this facility is 6.0 miles east of Gallup, NM in McKinley County.

The primary function of the facility is crude transloading but the facility also loads and unloads liquefied petroleum gas (LPG), such as propane, butane, and natural gasoline.

The proposed modification consists of permitting crude oil transloading operations, including the installation of a vapor combustion unit and two crude oil storage tanks. In addition, multiple units at the facility will be removed.

The estimated maximum quantities of any regulated air contaminant will be:

| Pollutant: | Pounds per hour | Tons per year |
|--|-----------------|---------------|
| Total Suspended Particulates (TSP) | 2.0 pph | 3.0 tpy |
| PM ₁₀ | 2.0 pph | 3.0 tpy |
| PM _{2.5} | 2.0 pph | 3.0 tpy |
| Sulfur Dioxide (SO ₂) | 2.0 pph | 3.0 tpy |
| Nitrogen Oxides (NO _x) | 8.0 pph | 15.0 tpy |
| Carbon Monoxide (CO) | 15.0 pph | 30.0 tpy |
| Volatile Organic Compounds (VOC) | 350.0 pph | 210.0 tpy |
| Hydrogen Sulfide (H ₂ S) | 1.0 pph | 1.0 tpy |
| Total sum of all Hazardous Air Pollutants (HAPs) | 18.0 pph | 10.0 tpy |

The standard operating schedule of the facility will be 24 hours a day, 7 days a week and a maximum of 52 weeks per year. The maximum operating schedule will be 24 hours a day, 7 days a week and a maximum of 52 weeks per year.

The owner and/or operator of the facility is:

Western Refining Southwest, Inc.
92 Giant Crossing Road
Gallup, NM 87301

If you have any comments about the construction or operation of the above facility, and you want your comments to be made as part of the permit review process, you must submit your comments in writing to the address below:

Permit Programs Manager
New Mexico Environment Department
Air Quality Bureau
525 Camino de los Marquez, Suite 1
Santa Fe, New Mexico 87505-1816
(505) 476-4300

Other comments and questions may be submitted verbally.

Please refer to the company name and site name, as used in this notice or send a copy of this notice along with your comments, since the Department may not have received the permit application at the time of this notice. Please include a legible mailing address with your comments. Once the Department has performed a preliminary review of the application and its air quality impacts, the Department's notice will be published in the legal section of a newspaper circulated near the facility location.

Sincerely,

Western Refining Southwest, Inc.

Section 9.6

General Posting of Notices – Certification

I, Alvin Dorsey, the undersigned, certify that on June 15, 2015, I posted a true and correct copy of the attached Public Notice in the following publicly accessible and conspicuous places in or near the community of Gallup, McKinley County, State of New Mexico on the following dates:

1. Western Refining
Wingate Facility Entrance
06/15 /15

2. Federal Building
305 W Hill Ave
Gallup, NM 87103
06/ 15 /15

3. City of Gallup Municipal Office
110 W Aztec
Gallup, NM 87103
06/15 /15

4. City of Gallup Octavia Fellin Public Library
115 W Hill Ave
Gallup, NM 87103
06/15/15

Signed this 15th day of June, 2015.



Signature

06/15/2015
Date

Alvin Dorsey
Printed Name

Environmental Specialist
Title

NOTICE

Western Refining Southwest, Inc. announces its intent to apply to the New Mexico Environment Department for an air quality permit for the modification of its crude transloading facility. The expected date of application submittal to the Air Quality Bureau is June 17, 2015. This notice is a requirement according to New Mexico air quality regulations.

The exact location for the facility known as, Western Refining Wingate Facility, is at #68 El Paso Circle, Gallup, NM 87301. The approximate location of this facility is 6.0 miles east of Gallup, NM in McKinley County.

The primary function of the facility is crude transloading but the facility also loads and unloads liquefied petroleum gas (LPG), such as propane, butane, and natural gasoline.

The proposed modification consists of permitting crude oil transloading operations, including the installation of a vapor combustion unit and two crude oil storage tanks. In addition, multiple units at the facility will be removed.

The estimated maximum quantities of any regulated air contaminant will be:

| Pollutant: | Pounds per hour | Tons per year |
|--|-----------------|---------------|
| Total Suspended Particulates (TSP) | 2.0 pph | 3.0 tpy |
| PM ₁₀ | 2.0 pph | 3.0 tpy |
| PM _{2.5} | 2.0 pph | 3.0 tpy |
| Sulfur Dioxide (SO ₂) | 2.0 pph | 3.0 tpy |
| Nitrogen Oxides (NO _x) | 8.0 pph | 15.0 tpy |
| Carbon Monoxide (CO) | 15.0 pph | 30.0 tpy |
| Volatile Organic Compounds (VOC) | 350.0 pph | 210.0 tpy |
| Hydrogen Sulfide (H ₂ S) | 1.0 pph | 1.0 tpy |
| Total sum of all Hazardous Air Pollutants (HAPs) | 18.0 pph | 10.0 tpy |

The standard operating schedule of the facility will be 24 hours a day, 7 days a week and a maximum of 52 weeks per year. The maximum operating schedule will be 24 hours a day, 7 days a week and a maximum of 52 weeks per year.

The owner and/or operator of the facility is:

Western Refining Southwest, Inc.
92 Giant Crossing Road
Gallup, NM 87301

If you have any comments about the construction or operation of the above facility, and you want your comments to be made as part of the permit review process, you must submit your comments in writing to the address below:

Permit Programs Manager
New Mexico Environment Department
Air Quality Bureau
525 Camino de los Marquez, Suite 1
Santa Fe, New Mexico 87505-1816
(505) 476-4300

Other comments and questions may be submitted verbally.

Please refer to the company name and site name, as used in this notice or send a copy of this notice along with your comments, since the Department may not have received the permit application at the time of this notice. Please include a legible mailing address with your comments. Once the Department has performed a preliminary review of the application and its air quality impacts, the Department's notice will be published in the legal section of a newspaper circulated near the facility location.

Section 9.7

Notices Sent

Information provided in *Section 9.4: Letter sent to owners of record* and *9.5: Letter sent to counties, municipalities, and Indian tribes*.

Section 9.8

Submittal of Public Service Announcement – Certification

I, Andrea Carrier, the undersigned, certify that on Tuesday, June 16, 2015, submitted a public announcement to KGLP 91.7 FM that serves the City of Gallup, McKinley County, New Mexico, in which the source is or is proposed to be located and KGLP 91.7 FM did not respond that it would or would not air the announcement.

Signed this 16th day of June, 2015.

Andrea Carrier

Signature

June 16, 2015

Date

Andrea Carrier

Printed Name

Technical Assistant, Trinity Consultants

Title

1}

Date/Time: Jun. 16. 2015 10:14AM

| File No. | Mode | Destination | Pg(s) | Result | Page Not Sent |
|----------|-----------|-------------|-------|--------|---------------|
| 3356 | Memory TX | 15058637633 | P. 1 | OK | |

Reason for error
 m. 1) Hang up or line fail
 m. 3) No answer
 m. 5) Exceeded max. E-mail size
 E. 2) Busy
 E. 4) No facsimile connection



12770 Merit Drive | Suite 900 | Dallas, TX 75251 | P (972) 661-8100 | F (972) 385-9283
 trinityconsultants.com

Trinity
 Consultants

FACSIMILE

To: NEWS - KGLP 91.7 FM From: Andrea Carrier, Trinity Consultants
 Phone: 505-863-7626 Pages: 1 - including cover
 Fax: 505-863-7633 Phone: (505) 266-6611
 Email: n/a Email: acarrier@trinityconsultants.com
 Subject: PSA Date: June 16, 2015
 Urgent For Review Please Comment Please Reply Please Recycle

Comments:

As part of the air quality permit process, New Mexico requires applicants to submit a public service announcement identifying the proposed permit action and providing information as to how the public can comment on this action. Below is such an announcement. Would you air it as a PSA?

Radio Public Service Announcement
NOTICE

Western Refining Southwest, Inc. announces its intent to apply to the New Mexico Environment Department for an air quality permit for the modification of its crude transloading facility. The expected date of application submittal to the Air Quality Bureau is June 17, 2015. This notice is a requirement according to New Mexico air quality regulations.

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The standard operating schedule of the facility will be 24 hours a day, 7 days a week and a maximum of 52 weeks per year. The maximum operating schedule will be 24 hours a day, 7 days a week and a maximum of 52 weeks per year.

Public Notice of this application is posted at Western Refining Wingate Facility Entrance, the Federal Building located at 305 W Hill Ave in Gallup, NM, the City of Gallup Municipal Office located at 110 W Aztec in Gallup, NM and the City of Gallup Octavia Fellin Public Library located at 115 W Hill Ave in Gallup, NM

If you have any questions regarding this application, please contact Program Manager, Permit Section, New Mexico Environment Department, Air Quality Bureau, 525 Camino de Los Marquez, Suite 1, Santa Fe, New Mexico 87505-1815. Their phone number is (505) 476-4300. Other comments and questions may be submitted verbally. Please refer to the company name and site name, as used in this notice or send a copy of this notice along with your comments to help identify the facility being commented on, since the Department may not have received the permit application at the time of this notice. Once the Department has performed a preliminary review of the application and its air quality impacts, another notice from the Department will be published in the legal section of the newspaper.



FACSIMILE

| | | | |
|-----------------|---------------------|---------------|--|
| To: | NEWS – KGLP 91.7 FM | From: | Andrea Carrier, Trinity Consultants |
| Phone: | 505-863-7626 | Pages: | 1 – including cover |
| Fax: | 505-863-7633 | Phone: | (505) 266-6611 |
| Email: | n/a | Email: | acarrier@trinityconsultants.com |
| Subject: | PSA | Date: | June 16, 2015 |

Urgent

 For Review

 Please Comment

 Please Reply

 Please Recycle

Comments:

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For the record

LIENS, RELEASES OF LIENS AND JUDGMENTS McKinley County

The following transactions were entered at the McKinley County Clerk's office between June 4 and June 10, 2015:

State of New Mexico Department of Taxation and Revenue filed liens on the following:

Eric Yazzie, \$376.56
 Patricia Silva, \$6,670.94
 George Rodriguez and Rachel Rodriguez, \$827.15
 Balerie Begay, \$3,742.11
 Edward Preston, \$4,731.10
 Herunda Mann, \$4,881.65
 Ella Morgan, \$2,677.28

State of New Mexico Department of Taxation and Revenue released liens on the following:

Wesley Osborn
 Duane Chimoni and Colleen Chimoni
 Betty Guillen and Herbert Guillen
 Anson Yazzie and Shirley Yazzie

Department of Treasury Internal Revenue Service filed liens against the following:

Rocky Thomas and Dereka J. Thomas, \$7,600.35
 Lavell Byjoe, \$1,719.24
 Munoz El Mercado Corporation, El Mercado Shopping Plaza, \$736.37
 All American Steel Erecton and Construction, \$12,788.35
 Lewnell B. Harrison, Dine Protection Agency, \$34,318.68
 Edward Onken, \$14,455.26
 Thomas Benally, \$3,538.37

Department of Treasury Internal Revenue Service released liens against the following:

Wesley Osborn
 Duane Chimoni and Colleen Chimoni
 Betty Guillen and Herbert Guillen
 Anson Yazzie and Shirley Yazzie

lowing: Virginia Anderson and Lind Anderson, Gallup Fabric Shop Craig Scoopmire Rena Tom Veronica Scoopmire Rehoboth McKinley Christian Hospital filed liens on the following:

Priscilla James, \$792.85
 Priscilla James, \$583.65

New Mexico Department of Workforce Solutions filed liens against the following:

Hebrew Begay, \$3,654.00
 Robby Begay, \$5,387.50
 Hely J. Ramirez, \$2,251.00
 Wade Rodriguez, \$645.00

New Mexico Department of Workforce Solutions released liens against the following:

Phillip Ramirez
 Sylfia N. Laforge
 Carmen Cuellar

MARRIAGE LICENSES McKinley County

The following marriage licenses were registered with the McKinley County Clerk's office between June 4 and June 10, 2015:

Charles Udeh, 33, and Tara N. Meekhof, 31.
 Ephenetus U. McCabe, 45, and Marindaline Eskeets, 40.
 Kendell K. Livingston, 30, and Dara D. Tsosie, 28.
 Nicholas R. Olson, 27, and Chelsea A. Piano, 27.
 David Cordova, 32, and Jessica Ortega, 26.
 Scott M. Sherman Jr., 19, and Makaylie R. Tsosie, 18.
 Erwin Yazzie, 28, and Andrea E. Lastyona, 27.
 Miguel Valtierra, 19, and Kayla M. Hester, 18.
 Mitchell F. Landers, 61, and Christine R. Marlow, 65.

Ex-candidate pleads guilty in topless video extortion case

SUNLAND PARK (AP) — A former mayoral candidate in a New Mexico border city has pleaded guilty to extortion for secretly recording an opponent receiving a lap dance from a topless woman, ending another bizarre chapter in the troubled town's history.

Daniel Salinas of Sunland Park accepted a plea agreement this week and admitted to felony extortion and conspiracy to commit extortion against Gerardo Hernandez, the Las Cruces Sun-News reported.

In 2012, Sunland Park drew national attention after Salinas secretly recorded Hernandez receiving the lap dance in his campaign office. Police say Salinas and his allies threatened to release the video to the public unless Hernandez withdrew his candidacy for mayor.

Hernandez declined to renounce his candidacy, but Salinas won election as Sunland Park's mayor in March 2012.

The arrests of Salinas and others connected to a voter fraud investigation put the border city in turmoil, and Salinas was never sworn into office or served a day as mayor.

"I'm trying hard to get my life back together," Salinas said in a brief statement in court. "I want to take responsibility for my actions. I took the wrong choice."

Union Pacific plans to spend \$23 million on New Mexico work

ALBUQUERQUE (AP) — Union Pacific Corp. has announced it plans to spend \$23 million in 2015 to maintain and improve its rail lines in New Mexico.

UP said the work includes \$21 million to maintain track, \$120,000 to enhance signal systems and nearly \$2 million to maintain or replace bridges.

The track work includes projects in several areas of the state to replace rail and ties and install new ballast foundations for track.

One project involves track between the Arizona-New Mexico line and Santa Teresa, where UP recently constructed a hub to handle cross-border freight traffic.

The company said its work in New Mexico is part of \$4.2 billion of planned spending across its 23-state network.

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www.gallupindependent.com
The Truth Well Told
Independent

Legal Notice

LEGAL NOTICE
 McKinley County
 New Mexico

NOTICE OF AIR QUALITY PERMIT APPLICATION

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| Pollutant: | Pounds per hour | Tons per year |
|--|-----------------|---------------|
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| PM 2.5 | 2.0 pph | 3.0 tpy |
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| Nitrogen Oxides (NOx) | 8.0 pph | 15.0 tpy |
| Carbon Monoxide (CO) | 15.0 pph | 30.0 tpy |
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Legal#16010 Published in The Independent June 13, 2015.

LEGAL NOTICE

Puerco Valley - Apache County
 Arizona

FINANCES

| Puerco Valley Fire District Approved F/Y 2015-2016 | |
|--|--------------|
| | Budget |
| Personnel Services | \$380310.58 |
| Administration | \$57,519.65 |
| Maintenance | \$20,550.00 |
| Fixed Assets | \$0 |
| Fire Equipment | \$2,800.00 |
| Capital Outlay/truck repair | \$15,000.00 |
| Capital Reserve | \$20,340.77 |
| County Bill | \$18,781.00 |
| TOTAL Expenditures | \$577,832.00 |
| REVENUE | |
| Property Taxes/PILT | \$481,527.00 |
| Fire District Assistance Tax | \$96,305.00 |
| TOTAL Revenue Income | \$577,832.00 |

Public hearing on budget to be held June 30, 2015 at 5:00 pm at Puerco Valley Fire District Station 1 in Sanders AZ.

Legal# 16011 Published in The Independent June 13, 2015.

| TALK | KIDS | SPECIALS | MOVIES | SPORTS | NEWS | SUNDAY EVENING, JUNE 14 | | | | | | | | | |
|----------------|--|--|--|--|---|--|--|--|--|---|---|--|--|---|------------------|
| 6:00 | 6:30 | 7:00 | 7:30 | 8:00 | 8:30 | 9:00 | 9:30 | 10:00 | 10:30 | 11:00 | 11:30 | 12:00 | 12:30 | 1:00 | |
| KASA (FOX) | Bob's Burgers (DVS) | Bob's Burgers (DVS) | The Simpsons (DVS) | Brooklyn Nine-Nine (N) | Family Guy (DVS) | Golan the In-satiable (N) | News 13 on KASA at 9pm | News 13 on KASA | Anger Management | Anger Management | Extra (N) (N) | TMZ (N) (N) | | Family Feud (N) | |
| KOB (NBC) | Dateline NBC (N) | Dateline NBC (N) | Dateline NBC (N) (Part 2 of 4) | A.D. The Bible Continues (N) | American Odyssey "Gingerbread" (N) | | | Eyewitness News 4 at 10 | Inside Edition Weekend (N) | Access Hollywood Top stories of the week (N) | Entertainers: With Byron Nails (N) | Whacked Out Sports (N) | | | |
| KNME (PBS) | Doc Martin "Hazardous Exposure" (N) | Masterpiece Classic "Birdsong" torn apart by World War I. (N) | Lovers are | Masterpiece Classic "Birdsong" Lovers are torn apart by World War I. (N) | | | | The Forsyte Saga (N) | | History Detectives (N) | Austin City Limits "Nine Inch Nails" (N) | As Time Goes By (N) | | | |
| KOAT (ABC) | 2015 NBA Finals Cleveland Cavaliers at Golden State Warriors. Game 5. (N) (Live) | | | Jimmy Kimmel Live (N) | The Hollywood News Report | | | Action 7 News Live at 10 (N) | | Entertainment Tonight (N) | Castle "Deep Cover" (N) | Scandal (N) | | | |
| KLUZ UNIVISION | Aqui y Ahora (N) (SS) | Me Pongo de Pie (N) | | Sal y Pimienta | | | | La Familia P. Luche (SS) | Noticiero Univision: Fin de | República Deportiva | AI Punto (SS) | La Rosa de Guadalupe | | | |
| KRQE (CBS) | 60 Minutes (N) (N) | Madam Secretary "The Call" (N) | The Good Wife "Message Discipline" (N) | CSI: Crime Scene Investigation "The Twin Paradox" (N) | | | | KRQE News 13 at 10 (N) | The Closer "Four to Eight" (N) | Unsealed: Alien Files (N) | Celebrity Skin | Outdoorsman/Buck McNeely | KRQE News | | |
| KTEL TELEMUNDO | (5:30) PELICULA: ** "Brother Bear" (2003) (N) (SS) | PELICULA: *** "The Hunger Games" (2012, Ciencia Ficción) Hutcherson. En una sociedad distópica, jóvenes pelean a muerte en | Jennifer Lawrence, Josh Hutcherson (N) (SS) | Titulares Telemundo (SS) | Conductas Totalmente | PELICULA: "Picardía Mexicana II" (1980) Vicente Fernández, Héctor Suárez. (N) (SS) | Programa Pagado | Programa Pagado | | | | | | | |
| A&E | Duck Dynasty | Duck Dynasty | Duck Dynasty | Duck Dynasty | Duck Dynasty | Duck Dynasty | Duck Dynasty | Duck Dynasty | Duck Dynasty | Duck Dynasty | Duck Dynasty | Duck Dynasty | Duck Dynasty | Duck Dynasty | |
| AMC | (5:30) MOVIE: *** "Back to the Future" (1985) Michael J. Fox. A boy travels through time to his parents' teenage years. | Halt and Catch Fire "The Way In" (N) | | Halt and Catch Fire "The Way In" (N) | | | | MOVIE: *** "Back to the Future" (1985, Comedy) Michael J. Fox, Christopher Lloyd. A boy travels through time to his parents' teenage years. | | | Halt and Catch Fire "The Way In" (N) | | | | |
| CMT | 2015 CMT Music Awards From Nashville, Tenn. (N) | | | Cops Reloaded (N) | The Josh Wolf Show (N) | The Josh Wolf Show (N) | | Cops Reloaded (N) | Cops Reloaded (N) | The Josh Wolf Show (N) | Cops Reloaded (N) | Raising Hope (N) | Raising Hope (N) | Paid Program (N) | |
| CNN | Anthony Bourdain: Parts Unknown "Hawaii" (N) | Anthony Bourdain: Parts Unknown "Hawaii" (N) | High Profits "Après-ski" (N) | Anthony Bourdain: Parts Unknown "Budapest" (N) | Anthony Bourdain: Parts Unknown "Hawaii" (N) | | | High Profits "Après-ski" (N) | | | CNN International | CNN International | | | |
| COMEDY CENT | (5:19) South Park "The Black Friday Trilogy" (N) | Tosh.0 "Black-face Kid" (N) | Tosh.0 "Smell Yo D... Girl" (N) | Tosh.0 (N) | Tosh.0 "Antoine Dodson" (N) | Tosh.0 (N) | | Tosh.0 "Mus-tang Kid" (N) | Tosh.0 (N) | Tosh.0 "Sweet Brown" (N) | Tosh.0 "P... Power" (N) | Tosh.0 "Ready to Mingle" (N) | Tosh.0 (N) | Tosh.0 (N) | |
| DISNEY | Girl Meets World (N) | Girl Meets World (N) | K.C. Undercover (N) | K.C. Undercover (N) | Austin & Ally (N) | Austin & Ally (N) | Austin & Ally (N) | K.C. Undercover (N) (N) | Liv & Maddie (N) | Girl Meets World (N) | I Didn't Do It "Bad News" (N) | Jessie (N) | Austin & Ally (N) | K.C. Undercover (N) | Liv & Maddie (N) |
| E! | Botched "House of Horrors" (N) | Botched "Knuckles and Knockers" (N) | Rich Kids of Beverly Hills "NeverHaveEver" (N) | Botched "Knuckles and Knockers" (N) | Rich Kids of Beverly Hills "NeverHaveEver" (N) | Botched "Knuckles and Knockers" (N) | Rich Kids of Beverly Hills "NeverHaveEver" (N) | Rich Kids of Beverly Hills "NeverHaveEver" (N) | Botched "Knuckles and Knockers" (N) | Botched "Knuckles and Knockers" (N) | Botched "House of Horrors" (N) | Botched "House of Horrors" (N) | New Money (N) | | |
| EWTV | Sunday Night Prime "Sacred Heart of Jesus" (N) | Kate Royal (N) | Parents' Holy Rosary (N) | Conversation with Cardinal Dolan (N) | Life on the Rock "Sr. Helena Burns" (N) | Sunday Mass (N) | | Litany of the Sacred Heart (N) | Finding God in All Things (N) | Sunday Night Prime "Sacred Heart of Jesus" (N) | Last Call: Stories of Late (N) | | | | |
| FAMILY CHANNEL | (5:00) MOVIE: *** "Harry Potter and the Deathly Hallows: Part 2" (2011, Fantasy) Daniel Radcliffe, Rupert Grint. (N) | MOVIE: *** "The Hunger Games" (2012, Science Fiction) Jennifer Lawrence, Josh Hutcherson, Liam Hemsworth. In a dystopian society, teens fight to the death on live TV. (N) | | MOVIE: *** "The Hunger Games" (2012, Science Fiction) Jennifer Lawrence, Josh Hutcherson, Liam Hemsworth. In a dystopian society, teens fight to the death on live TV. (N) | | | | MOVIE: *** "The Hunger Games" (2012, Science Fiction) Jennifer Lawrence, Josh Hutcherson, Liam Hemsworth. In a dystopian society, teens fight to the death on live TV. (N) | | | Becoming Us "WelcometoMyWorld" (N) | Stitchers "Friends in Low Places" (N) | Joel Osteen (N) | | |
| FX | MOVIE: ** "Transformers: Revenge of the Fallen" (2009, Science Fiction) Shia LaBeouf, Megan Fox, Josh Duhamel. Sam Witwicky holds the key to defeating an ancient Deception. (N) | MOVIE: ** "Transformers: Revenge of the Fallen" (2009, Science Fiction) Shia LaBeouf, Megan Fox, Josh Duhamel. Sam Witwicky holds the key to defeating an ancient Deception. (N) | | MOVIE: ** "Transformers: Revenge of the Fallen" (2009, Science Fiction) Shia LaBeouf, Megan Fox, Josh Duhamel. Sam Witwicky holds the key to defeating an ancient Deception. (N) | | | | MOVIE: ** "Transformers: Revenge of the Fallen" (2009, Science Fiction) Shia LaBeouf, Megan Fox, Josh Duhamel. Sam Witwicky holds the key to defeating an ancient Deception. (N) | | | Mike & Molly (N) | Mike & Molly (N) | Blademasters (N) | | |
| HISTORY | Pawn Stars (N) | Pawn Stars (N) | Pawn Stars (N) | Texas Rising Sam Houston triggers a surprise attack. (N) (Part 4 of 5) | Pawn Stars (N) | Pawn Stars (N) | Pawn Stars (N) | Pawn Stars (N) | Pawn Stars (N) | Pawn Stars (N) | Pawn Stars (N) | Pawn Stars (N) | Texas Rising Sam Houston triggers a surprise attack. (N) (Part 4 of 5) | | |
| HGTV | Beachfront Bargain Hunt | Beachfront Bargain Hunt | Caribbean Life (N) | Caribbean Life (N) | Island Hunters (N) | Island Hunters (N) | House Hunters International | Caribbean Life (N) | Caribbean Life (N) | Island Hunters (N) | Island Hunters (N) | House Hunters International | Beachfront Bargain Hunt | | |
| LIFETIME | (5:00) MOVIE: "Stalked by My Neighbor" (2015) (SS) | MOVIE: "I Killed My BFF" (2015, Docudrama) Katrina Bowden. Friendship between two young mothers results in murder. (N) | | (02) MOVIE: "Stalked by My Neighbor" (2015) Kelcie Strahan. A rape victim tries to learn the identity of a killer. (N) | | | | (02) MOVIE: "I Killed My BFF" (2015) Katrina Bowden. Friendship between two young mothers results in murder. (N) | | | 21 DAY FIX (N) | | | | |
| MTV | Catfish: The TV Show "Steven & Samm" (N) | Catfish: The TV Show "Miranda & Cameryn" (N) | True Life "I'm Supporting My Man" (N) | True Life "Save My Teen Marriage" (N) | Ridiculousness (N) | Ridiculousness (N) | Ridiculousness (N) | Ridiculousness (N) | Ridiculousness (N) | Ridiculousness (N) | Ridiculousness (N) | Ridiculousness (N) | Ridiculousness (N) | Ridiculousness (N) | |
| NICKELODEON | Full House (N) | Full House (N) | Full House (N) | Full House (N) | Friends (N) | Friends (N) | Friends (N) | Friends "The One With the Metaphorical Tunnel" (N) | Friends (N) | Fresh Prince of Bel-Air | Fresh Prince of Bel-Air | Fresh Prince of Bel-Air | Fresh Prince of Bel-Air | Fresh Prince of Bel-Air | |
| ROOT | PowerShares Champions Series Tennis | | World Poker Tour | World Poker Tour Borgata Poker Classic - Part 1. (Taped) | | | | Fight Sports: World Championship Kickboxing (N) | | UFC Unleashed (N) | Bull Riding Championship (N) | | | | |
| SPIKE | Bar Rescue "Spoiled Brat Party" (N) | Bar Rescue "Crayons & Anger Lines" (N) | | Bar Rescue "Bromancing the Stone" (N) | | | | Bar Rescue A tax accountant turned bar owner struggles. (N) | Bar Rescue "To Protect and (Over) Serve" (N) | Bar Rescue "The Lost Episode" A bar owner who can't stop kicking people out of his bar. (N) | Bar Rescue "Chumps" (N) | | | | |
| TBN | Joel Osteen Ministries | Kerry Shook Ministries | Kenneth Copeland (N) | Creflo Dollar (N) | MOVIE: "The Apocalypse" (2002) Richard Harris, Vittoria Belvedere. In 90 A.D., the aged apostle John has prophetic visions. (N) | | | Night of Hope From Chicago (N) | | | Exodus Revealed (N) | | | | |
| TDC DISCOVERY | Naked and Afraid "Himalayan Hell" (N) | Naked and Afraid: Uncensored "Columbian Conflict" (N) | Naked and Afraid "Bares All: Survival in Close Quarters" (N) | Naked and Afraid "Fire on the Mountain" (N) | Naked and Afraid "Rumble in the Jungle" (N) | Naked and Afraid "Bares All: Survival in Close Quarters" (N) | Naked and Afraid "Bares All: Survival in Close Quarters" (N) | Naked and Afraid "Bares All: Survival in Close Quarters" (N) | Naked and Afraid "Bares All: Survival in Close Quarters" (N) | Naked and Afraid "Bares All: Survival in Close Quarters" (N) | Naked and Afraid: Uncensored "Columbian Conflict" (N) | Paid Program (N) | | | |
| TNT | MOVIE: ** "The Hobbit: An Unexpected Journey" (2012, Fantasy) Ian McKellen, Martin Freeman, Richard Armitage. Bilbo Baggins joins the quest to reclaim a lost kingdom. (DVS) | Everybody Raymond (N) | Everybody Raymond (N) | Everybody Raymond (N) | Everybody Raymond (N) | The King of Queens (N) | The King of Queens (N) | The King of Queens (N) | The King of Queens (N) | The King of Queens (N) | The King of Queens (N) | The Golden Girls (N) | The Golden Girls (N) | The Golden Girls "Great Expectations" (N) | |
| TV LAND | Reba "Roll With It" (N) | NCIS "The Admiral's Daughter" (N) (DVS) | Modern Family "The Help" (N) | Modern Family "Disneyland" (N) | Modern Family "ly" (N) | Modern Family "ly" (N) | Modern Family "ly" (N) | Modern Family "ly" (N) | Modern Family "ly" (N) | Modern Family "ly" (N) | Odd Mom Out "Wheels Up" (N) | Law & Order: Special Victims Unit "Slaves" (N) | Law & Order: Criminal Intent (N) | | |
| USA | NCIS "Shooter" (N) (DVS) | NCIS "The Admiral's Daughter" (N) (DVS) | Modern Family "The Help" (N) | Modern Family "Disneyland" (N) | Modern Family "ly" (N) | Modern Family "ly" (N) | Modern Family "ly" (N) | Modern Family "ly" (N) | Modern Family "ly" (N) | Modern Family "ly" (N) | Odd Mom Out "Wheels Up" (N) | Law & Order: Special Victims Unit "Slaves" (N) | Law & Order: Criminal Intent (N) | | |
| VH1 | T.I. and Tinsley: Family Hustle | T.I. and Tinsley: Family Hustle | Love & Hip Hop: Atlanta "Rumor Has It..." (N) | Love & Hip Hop: Atlanta "Face the Music" (N) | Love & Hip Hop: Atlanta "Three-Ring Circus" (N) | Love & Hip Hop: Atlanta "Three-Ring Circus" (N) | Love & Hip Hop: Atlanta "Three-Ring Circus" (N) | Love & Hip Hop: Atlanta "Three-Ring Circus" (N) | Love & Hip Hop: Atlanta "Three-Ring Circus" (N) | Love & Hip Hop: Atlanta "Three-Ring Circus" (N) | The Fabulous Life of... "Atlanta" (N) | The Fabulous Life of... "Nicki Minaj" (N) | The Fabulous Life of... "The Fabulous Life of..." (N) | | |
| WTBS | MOVIE: ** "Think Like a Man" (2012) Michael Ealy, Jerry Ferrara, Meagan Good. Premiere. Men use an advice book to turn the tables on their girls. (DVS) | MOVIE: ** "Think Like a Man" (2012, Romance-Comedy) Michael Ealy, Jerry Ferrara. Men use an advice book to turn the tables on their girls. (DVS) | | MOVIE: ** "Think Like a Man" (2012, Romance-Comedy) Michael Ealy, Jerry Ferrara. Men use an advice book to turn the tables on their girls. (DVS) | | | | MOVIE: ** "Why Did I Get Married?" (2007, Comedy-Drama) Tyler Perry, Janet Jackson. Eight married friends grapple with commitment and betrayal. (DVS) | | | | | | | |
| WGN | (5:30) MOVIE: *** "The Last Boy Scout" (1991) Bruce Willis. Private eye and ex-quarterback team up on dirty case. (N) | | | Salem Alden and Cotton try to save the boy's soul. (N) | | | | Salem Alden and Cotton try to save the boy's soul. (N) | | | Bones "The Man in the Wall" (N) | Bones (N) | | | |

Legal Notice

LEGAL NOTICE
 Gallup - McKinley County
 New Mexico

STATE OF NEW MEXICO COUNTY OF MCKINLEY ELEVENTH JUDICIAL DISTRICT COURT

No. D-1113-CV-2013-00196

LSF8 MASTER PARTICIPATION TRUST, BY CALIBER HOME LOANS, INC., SOLELY IN ITS CAPACITY AS SERVICER,

Plaintiff,

vs.

FRANK J. CHIAPETTI JR., LESLIE E. CHIAPETTI AND HSBC MORTGAGE SERVICES INC.,

Defendants.

NOTICE OF SALE

Notice is hereby given that on June 17, 2015, at the hour of 12:30 pm the undersigned Special Master, Jennifer A. Taylor or her designee, will, at the front entrance of the McKinley County Courthouse, at 201 West Hill Street, Gallup, NM 87301, sell all of the rights, title and interest of the above-named Defendants, in and to the hereinafter described real estate to the highest bidder for cash. The property to be sold is located at 607 East Logan Ave., Gallup, New Mexico 87301 (if there is a conflict between the legal description and the street address, the legal description shall control), and is more particularly described as follows:

NiteRyders to perform Saturday at ArtsCrawl

By Kyle Chancellor
Staff writer
arts@gallupindependent.com
Twitter: @KylechanArts

GALLUP — With a new group and a new sound, local favorite Nite Gomez returns to the Gallup music scene with the NiteRyders.

The group will perform their debut show this Saturday during the June ArtsCrawl. They will be set up in the intersection of Coal Avenue and Second Street and will start playing at 7 p.m.

Gomez gained popularity while performing in the pop group Dey & Nite with her twin sister Dey Gomez. But recently, the two have gone through a transition both in life, and in music.

"This is a new musical adventure I'm taking while in transition with my sister; where we're moving and what sound we're moving to," Gomez said Monday.

Nite said that they are going in the direction of a more country/rock sound, and while Dey has moved out of town, Nite is exploring the sound with the NiteRyders.

Comprised of Nite along with her father Jay Gomez on the drums, Mark Garcia on the guitar and James Mecale playing the bass.

Nite says the idea of playing without her sister has been nerve-racking, but her father being in the group has helped tremendously. She still has family support she's grown up with.

Nite has been playing music since she was nine years old, learning on the piano first. By the age of 14, the twins had written their first song, "Baby Never Leave Me."

The NiteRyders have only been playing together for the past few months and are not currently playing any original songs. Nite says that the group draws inspiration from bands like Fleetwood Mac, the Beatles and Miranda Lambert, and they have developed a country, soft rock sound.

"We are going to play songs that people can sing to and like to listen to. Songs that people loved before and will love again," Nite said.

Nite will also be performing the National Anthem for the Grand Opening of the Second Street Event Center, which also takes place during ArtsCrawl.



Amanda Martza, right, Alberta Kallestewa and Paula Gonzalez compete in a taco-eating contest at El Morro Theatre during ArtsCrawl in downtown Gallup May 9. Martza won the \$100 prize by eating six tacos in three minutes.



Nite Gomez returns to the Gallup music scene with the NiteRyders Saturday during ArtsCrawl.



Anne Marie Hall grills up Jamaican jerk chicken to sell during ArtsCrawl in downtown Gallup May 9.

Other events:

This month's ArtsCrawl theme is Multicultural Month and a plethora of activities will be taking place.

Along with the NiteRyders, music will be provided by DJ Vanessa Wilde, KleenS18, Wolves in Wolves Clothing and DJ JuJu Binx in various places in the downtown area throughout the night. There will also be dance performances from the Cellicion Zuni Dancers as well as from Foundations of Freedom.

Cable Hoover/Independent

Cable Hoover/Independent

ArtsCrawl Schedule

7-9 p.m., Saturday, June 13

Live Performances

- Vanessa Wilde DJ'ing from 3:30-5 p.m. in the Downtown Walkway.
- Nite Gomez and The NiteRyders playing from 7-9 p.m. on Second and Coal.
- KleenS18 from Michigan playing in the Downtown Walkway from 7-9 p.m.
- Cellicion Zuni Dancers will be doing three performances at 7:30 p.m., 8 p.m. and 8:30 p.m. on Coal St.
- Wolves in Wolves Clothing will be performing on Coal St. and Third St.
- DJ JuJu Binx will be spinning house music in front of the La Montanita Co-Op.
- Foundation of Freedom Dancers performing on Coal St. throughout the night.

El Morro Theatre

Featuring the Navajo Nation Museum artists, Marlowe Ketoney, Genevieve Hardy, Tahniabaa Naataani, Phil Singer and Jay Begay with "Wool Works" and traditional flute music by Eric Manuelito.

ART123

123 Coal
"Creating White" by Be Sargent

Crashing Thunder

228 W. Coal
"Ravens" by Michelle Sanchez

Makeshift Gallery

213 W. Coal
Local, hand made arts and crafts.

Max's Tattoo Zone

220 W. Coal
Spray Art by Josh Fambrough

The Open Studio/Outsider Gallery

123 W. Coal
Contemporary fine arts and crafts, unique, one-of-a-kind and handmade created by our various artists. Group exhibition featuring paintings, jewelry, beadwork, spray paint art, fiber arts, drawings and pastels.
Shallow Gallery
Featuring the works of Tommy Haws.

Youth Artist of Gallup

305 S. 2nd
Featuring the art of Sharon Swindle. Live Painters
■ Enchanted Faces-Jenae Lewis, a pensive Disney World face painter, will be doing face painting.
■ Vanessa Wilde
■ Shontysa Joe
■ Marina Eskeets
■ Tori and Jay
■ Kyle John
■ Treston Chee
■ Ouray Benally
■ Alex Barton

Restaurants

Camille's Sidewalk Café

Presenting the "Kazoku Mural" by Ric Sarracino.

Coal St. Pub

Crab Boil, Live Music and designs by MarlaDe.

Eagle Café

Oldest Café in Gallup featuring the ArtsCrawl 4-course dinner and a featured artist.

Sammy C's Rock'n Pub & Grille

DJ Kirk, outdoor beer garden, outdoor cornhole tournament.

NOTICE OF AIR QUALITY PERMIT APPLICATION

Western Refining Southwest, Inc. announces its intent to apply to the New Mexico Environment Department for an air quality permit for the modification of its crude transloading facility. The expected date of application submittal to the Air Quality Bureau is June 17, 2015. This notice is a requirement according to New Mexico air quality regulations.

The exact location for the facility known as, Western Refining Wingate Facility, is at #68 El Paso Circle, Gallup, NM 87301. The approximate location of this facility is 6.0 miles east of Gallup, NM in McKinley County.

The primary function of the facility is crude transloading but the facility also loads and unloads liquefied petroleum gas (LPG), such as propane, butane, and natural gasoline.

The proposed modification consists of permitting crude oil transloading operations, including the installation of a vapor combustion unit and two crude oil storage tanks. In addition, multiple units at the facility will be removed.

The estimated maximum quantities of any regulated air contaminant will be:

| Pollutant: | Pounds per hour | Tons per year |
|--|-----------------|---------------|
| Total Suspended Particulates (TSP) | 2.0 pph | 3.0 tpy |
| PM ₁₀ | 2.0 pph | 3.0 tpy |
| PM _{2.5} | 2.0 pph | 3.0 tpy |
| Sulfur Dioxide (SO ₂) | 2.0 pph | 3.0 tpy |
| Nitrogen Oxides (NO _x) | 8.0 pph | 15.0 tpy |
| Carbon Monoxide (CO) | 15.0 pph | 30.0 tpy |
| Volatile Organic Compounds (VOC) | 350.0 pph | 210.0 tpy |
| Hydrogen Sulfide (H ₂ S) | 1.0 pph | 1.0 tpy |
| Total sum of all Hazardous Air Pollutants (HAPs) | 18.0 pph | 10.0 tpy |

The standard operating schedule of the facility will be 24 hours a day, 7 days a week and a maximum of 52 weeks per year. The maximum operating schedule will be 24 hours a day, 7 days a week and a maximum of 52 weeks per year.

The owner and/or operator of the facility is:

Western Refining Southwest, Inc.
92 Giant Crossing Road
Gallup, NM 87301

If you have any comments about the construction or operation of the above facility, and you want your comments to be made as part of the permit review process, you must submit your comments in writing to the address below:

Permit Programs Manager
New Mexico Environment Department
Air Quality Bureau
525 Camino de los Marquez, Suite 1
Santa Fe, New Mexico 87505-1816
(505) 476-4300

Other comments and questions may be submitted verbally.

Please refer to the company name and site name, as used in this notice or send a copy of this notice along with your comments, since the Department may not have received the permit application at the time of this notice. Please include a legible mailing address with your comments. Once the Department has performed a preliminary review of the application and its air quality impacts, the Department's notice will be published in the legal section of a newspaper circulated near the facility location.

A&E calendar

Saturday

GALLUP — Picked Clean, will be performing from 8 p.m.-10 p.m. Saturday, June 13, at the Coal Street Pub.
Information: 505-722-0117

GALLUP — Exotics of the Rainforest, will be at 2 p.m. Saturday, June 13, at the Octavia Fellin Public Library Childrens Branch. The presentation will include animal interaction, videos and visuals and a chance to ask questions about creatures.
GALLUP — ArtsCrawl, will be from 7 p.m.-9 p.m. Saturday, June 12, in Downtown Gallup.

Tuesday

GALLUP — "Divergent," will be showing at 2 p.m. Tuesday, June 16, at the Octavia Fellin Public Library Childrens Branch.

GALLUP — Duck Tape Wallets, will be at 4 p.m. Tuesday, June 16, at the Octavia Fellin Public Library Childrens Branch.

Wednesday

GALLUP — Open Mic Night, will be from 8 p.m. -10 p.m. Wednesday, June 17, at the Coal Street Pub.
Information: 505-722-0117

GALLUP — Toddler Time, will be at 10:30 a.m. Wednesday,

June 17, at the Octavia Fellin Public Library Childrens Branch.

GALLUP — Bedtime stories, Summer, will be at 6 p.m., Wednesday, June 17, at the Octavia Fellin Public Library Childrens Branch.

Thursday

GALLUP — Crafty kids, Safety Hero, will be at 4 p.m. Thursday, June 18, at the Octavia Fellin Public Library Childrens Branch.

GALLUP — A Teddy Bear Sleepover will be Thursday, June 18, at the Octavia Fellin Public Library Childrens Branch. Families can drop off stuffed animals from Tuesday, June 16 through Thursday, June 18.

Friday

GALLUP — The Pat n Mike Show will be from 8 p.m.-10 p.m. Friday, June 19, at the Coal Street Pub.

GALLUP — "Mulan" will be showing at 4 p.m. Friday, June 19, at the Octavia Fellin Public Library Childrens Branch.

The Arts and Entertainment calendar runs Saturday. Send events to community@gallupindependent.com or fax 505-722-5750. Call 505-863-6811 ext. 212.

Farley to be honored at Hat & Boots Gala

By Kathy Helms
Cibola County Bureau
cibola@gallupindependent.com

GRANTS — Jack Farley, 82, a former miner with United Nuclear Corp. and volunteer tour guide at the New Mexico Mining Museum, will receive a Lifetime Miner Certificate Saturday at the museum's 16th annual Hat & Boots Gala.

Tammy Legler, manager of the museum who also will be honored during the event, said that every year the museum will either honor a business that has helped the mining companies or a miner. The gala is set for 6-9 p.m. at the museum.

On Dec. 6, 2014, the museum established the Honorary Miner's Registry, housing the names of anyone who was on the mining payroll so that they are honored and their names stay at the museum.

"All the miners will be honored at the museum ball — all the names," Legler said.

TripAdvisor has awarded the museum almost five stars in customer reviews, "and that's huge," she said.

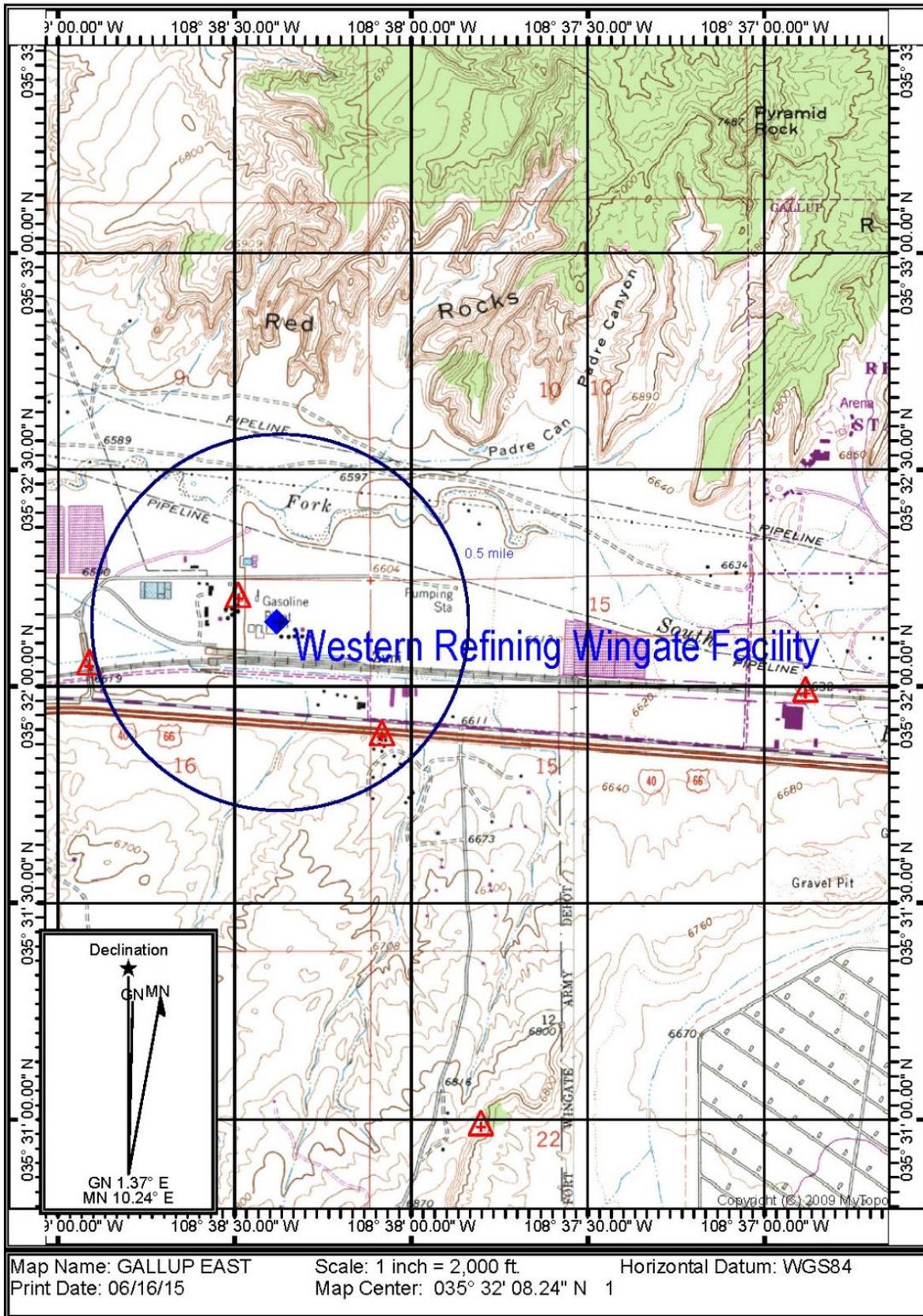
"If you look on TripAdvisor, the review site, Jack has probably got most of the reviews for his tours. There are people who come in and they'll ask for Jack specifically. And when they meet him, they think they're meeting this huge 'chick magnet,'" she said laughing.

Farley said last year they had visitors from 36 countries, including a group of 40 from China and 35 from Yugoslavia.

In May, they had visitors from Austria, Australia, Canada, Central American, Denmark, France, Germany, India, Japan, Netherlands, New Zealand, Sweden, Switzerland, Turkey and the United Kingdom, to name a few.

Section 9.11

Facility Boundary Map



Section 10

Written Description of the Routine Operations of the Facility

A written description of the routine operations of the facility. Include a description of how each piece of equipment will be operated, how controls will be used, and the fate of both the products and waste generated. For modifications and/or revisions, explain how the changes will affect the existing process. In a separate paragraph describe the major process bottlenecks that limit production. The purpose of this description is to provide sufficient information about plant operations for the permit writer to determine appropriate emission sources.

In this application, the facility's main operation became crude transloading. As a result, the facility is now categorized under the SIC code for petroleum bulk stations and terminals (SIC code 5171) instead of under the category for natural gas liquids (SIC code 1321).

Prior to this application, the plant has shutdown the gas processing operation. With this application, the facility's main operation will become crude transloading. Crude oil will be transferred from trucks or pipeline to two storage tanks. From the storage tanks, crude oil will be unloaded into railcars to be transferred off-site. The storage tanks will be equipped with an external floating roof to minimize emissions from working and breathing losses. The facility retains the Butamer, storage and loading/unloading facility for LPG.

Section 11

Source Determination

Source submitting under 20.2.70, 20.2.72, 20.2.73, and 20.2.74 NMAC

Sources applying for a construction permit, PSD permit, or operating permit shall evaluate surrounding and/or associated sources (including those sources directly connected to this source for business reasons) and complete this section. Responses to the following questions shall be consistent with the Air Quality Bureau's permitting guidance, Single Source Determination Guidance, which may be found on the Applications Page in the Permitting Section of the Air Quality Bureau website.

Typically, buildings, structures, installations, or facilities that have the same SIC code, that are under common ownership or control, and that are contiguous or adjacent constitute a single stationary source for 20.2.70, 20.2.72, 20.2.73, and 20.2.74 NMAC applicability purposes. Submission of your analysis of these factors in support of the responses below is optional, unless requested by NMED.

A. Identify the emission sources evaluated in this section (list and describe):

See Table 2-A.

B. Apply the 3 criteria for determining a single source:

SIC Code: Surrounding or associated sources belong to the same 2-digit industrial grouping (2-digit SIC code) as this facility, OR surrounding or associated sources that belong to different 2-digit SIC codes are support facilities for this source.

Yes **No**

Common Ownership or Control: Surrounding or associated sources are under common ownership or control as this source.

Yes **No**

Contiguous or Adjacent: Surrounding or associated sources are contiguous or adjacent with this source.

Yes **No**

C. Make a determination:

The source, as described in this application, constitutes the entire source for 20.2.70, 20.2.72, 20.2.73, or 20.2.74 NMAC applicability purposes. If in "A" above you evaluated only the source that is the subject of this application, all "YES" boxes should be checked. If in "A" above you evaluated other sources as well, you must check **AT LEAST ONE** of the boxes "NO" to conclude that the source, as described in the application, is the entire source for 20.2.70, 20.2.72, 20.2.73, and 20.2.74 NMAC applicability purposes.

The source, as described in this application, **does not** constitute the entire source for 20.2.70, 20.2.72, 20.2.73, or 20.2.74 NMAC applicability purposes (A permit may be issued for a portion of a source). The entire source consists of the following facilities or emissions sources (list and describe):

Section 12

Section 12.A

PSD Applicability Determination for All Sources

(Submitting under 20.2.72, 20.2.74 NMAC)

A PSD applicability determination for all sources. For sources applying for a significant permit revision, apply the applicable requirements of 20.2.74.AG and 20.2.74.200 NMAC and to determine whether this facility is a major or minor PSD source, and whether this modification is a major or a minor PSD modification. It may be helpful to refer to the procedures for Determining the Net Emissions Change at a Source as specified by Table A-5 (Page A.45) of the EPA New Source Review Workshop Manual to determine if the revision is subject to PSD review.

A. This facility is:

- a minor PSD source before and after this modification (if so, delete C and D below).
- a major PSD source before this modification. This modification will make this a PSD minor source.
- an existing PSD Major Source that has never had a major modification requiring a BACT analysis.
- an existing PSD Major Source that has had a major modification requiring a BACT analysis
- a new PSD Major Source after this modification.

B. This facility **is not** one of the listed 20.2.74.501 Table I – PSD Source Categories. Please see the PSD applicability determination below. The project emissions (before netting) for this project are as follows [see Table 2 in 20.2.74.502 NMAC for a complete list of significance levels]:

- a. NOx: **XX.X** TPY
- b. CO: **XX.X** TPY
- c. VOC: **XX.X** TPY
- d. SOx: **XX.X** TPY
- e. TSP (PM): **XX.X** TPY
- f. PM10: **XX.X** TPY
- g. PM2.5: **XX.X** TPY
- h. Fluorides: **XX.X** TPY
- i. Lead: **XX.X** TPY
- j. Sulfur compounds (listed in Table 2): **XX.X** TPY
- k. GHG: **XX.X** TPY

C. **Netting is not required (project is not significant).**

D. **BACT is not required for this modification, as this application is a minor modification.**

E. If this is an existing PSD major source, or any facility with emissions greater than 250 TPY (or 100 TPY for 20.2.74.501 Table 1 – PSD Source Categories), determine whether any permit modifications are related, or could be considered a single project with this action, and provide an explanation for your determination whether a PSD modification is triggered.

Below is the major source determination for the Wingate Facility.

In this application, the facility's main operation became crude transloading. As a result, the facility is categorized under the SIC code for petroleum bulk stations and terminals (SIC code 5171) instead of under the category for natural gas liquids (SIC code 1321). A petroleum bulk station and terminal is not historically considered one of the 28 named source categories listed in Section 169 of the CAA (Table A-1).

The butamer deisobutanizer unit at the facility is subject to 40 CFR 60 Subparts NNN and RRR which are both synthetic organic manufacturing industry regulations. Usually, facilities that are subject to Subparts NNN and RRR are considered “chemical processing facilities” signifying the facility is one of the 28 named source categories. However, n-butane or iso-butane, which are the products of the butamer deisobutanizer, are not listed chemicals under the major SIC code group 28 for chemicals and allied products. Therefore, the only applicable SIC code for the butamer deisobutanizer is 1321 for natural gas liquids which is not historically considered one of the 28 named source categories.

Since the Wingate facility is a crude loading facility and is not considered one of the 28 named source categories and the butamer deisobutanizer unit is identified under the SIC code of 1321, the facility nor any units at the facility can be considered as one of the 28 named source categories. The aforementioned argument implies that the facility threshold to meet PSD major source status is 250 tpy. Furthermore, if the butamer deisobutanizer unit was considered one of the 28 named source categories, the facility as a whole must stay under the 250 tpy threshold before reaching PSD major source status as long as the butamer deisobutanizer unit by itself is not a major source. This is the case with the butamer deisobutanizer unit at the facility. The following paragraphs explain this statement in a more detailed fashion.

The New Source Review Workshop Manual – Prevention of Significant Deterioration and Nonattainment Area Permitting provided by the EPA contains a section discussing the above situation. The EPA manual states the following:

“A situation frequently occurs in which an emissions unit that is included in the 28 listed source categories (and so is subject to a 100 tpy threshold), is located within a parent source whose primary activity is not on the list (and is therefore subject to a 250 tpy threshold). A source which, when considered alone, would be major (and hence subject to PSD) cannot “hide” within a different and less restrictive source category in order to escape applicability.” (Page A. 23)

The manual continues to state:

“As an example, a proposed coal mining operation will use an on-site coal cleaning plant with a thermal dryer. The source will be defined as a coal mine because the cleaning plant will only treat coal from the mine. The mine's potential to emit (including emissions from the thermal dryer) is less than 250 tpy for every regulated pollutant; therefore, it is a “minor” source. The estimated emissions from the thermal dryer, however, will be 150 tpy particulate matter. Thermal dryers are included in the list of 28 source categories that are subject to the 100 tpy major source threshold. Consequently, the thermal dryer would be considered an emissions unit that by itself is a major source and therefore is subject to PSD review, even though the primary activity is not.” (Page A. 23)

From the above excerpts in the EPA manual, a determination can be made. If the butamer unit is considered to be one of the 28 listed source categories located within a parent source whose primary activity is not on the list and the butamer unit is below the 100 tpy threshold, the butamer unit by itself is not a major source and is therefore not subject to PSD review. The facility as a whole must stay under the 250 tpy threshold to not be subject to PSD review.

Section 13

Discussion Demonstrating Compliance With Each Applicable State & Federal Regulation

Provide a discussion demonstrating compliance with applicable state & federal regulation. If there is a state or federal regulation (other than those listed here) for your facility's source category that does not apply to your facility, but seems on the surface that it should apply, add the regulation to the appropriate table below and provide the analysis. Examples of regulatory requirements that may or may not apply to your facility include 40 CFR 60 Subpart OOO (crushers), 40 CFR 63 Subpart HHH (HAPs), or 20.2.74 NMAC (PSD major sources). We don't want a discussion of every non-applicable regulation, but if there is questionable applicability, explain why it does not apply. All input cells should be filled in, even if the response is 'No' or 'N/A'.

In the "Justification" column, identify the criteria that are critical to the applicability determination, numbering each. For each unit listed in the "Applies to Unit No(s)" column, after each listed unit, include the number(s) of the criteria that made the regulation applicable. For example, TK-1 & TK-2 would be listed as: TK-1 (1, 3, 4), TK-2 (1, 2, 4). Doing so will provide the applicability criteria for each unit, while also minimizing the length of these tables.

As this table will become part of the SOB, please do not change the any formatting in the table, especially the width of the table.

If this application includes any proposed exemptions from otherwise applicable requirements, provide a narrative explanation of these proposed exemptions. These exemptions are from specific applicable requirements, which are spelled out in the requirements themselves, not exemptions from 20.2.70 NMAC or 20.2.72 NMAC.

Table for Applicable STATE REGULATIONS:

| <u>STATE REGULATIONS CITATION</u> | Title | Applies to Entire Facility | Applies to Unit No(s). | Federally Enforceable | Does Not Apply | JUSTIFICATION: Identify the applicability criteria, numbering each (i.e. 1. Post 7/23/84, 2. 75 m ³ , 3. VOL) |
|-----------------------------------|--|-----------------------------------|-------------------------------|------------------------------|-----------------------|--|
| 20.2.3 NMAC | Ambient Air Quality Standards NMAAQS | X | - | Yes | - | 20.2.3 NMAC is a SIP approved regulation that limits the maximum allowable concentration of Total Suspended Particulates, Sulfur Compounds, Carbon Monoxide and Nitrogen Dioxide. |
| 20.2.7 NMAC | Excess Emissions | X | - | Yes | - | All Title V major sources are subject to Air Quality Control Regulations, as defined in 20.2.7 NMAC, and are thus subject to the requirements of this regulation. Also listed as applicable in NSR Permit 1313M5R1. |
| 20.2.33 NMAC | Gas Burning Equipment - Nitrogen Dioxide | - | - | Yes | X | This facility does not have existing gas burning equipment having a heat input of greater than 1,000,000 million British Thermal Units per year per unit. There are no equipment at the facility subject to 20.2.33 NMAC. |
| 20.2.34 NMAC | Oil Burning Equipment: NO ₂ | - | - | Yes | X | This facility does not have oil burning equipment (external combustion emission sources, such as oil fired boilers and heaters) having a heat input of greater than 1,000,000 million British Thermal Units per year per unit. |
| 20.2.35 NMAC | Natural Gas Processing Plant – Sulfur | - | - | - | X | This facility is not subject to the requirements of NMAC 2.35 for "New Natural Gas Processing Plants for which a modification commenced on or after July 1, 1974. |
| 20.2.37 NMAC | Petroleum Processing Facilities | - | - | No | X | This facility is not subject to the requirements of NMAC 2.37 for "New Natural Gas Processing Plants for which a modification commenced on or after July 1, 1974. |
| <u>20.2.38</u> NMAC | Hydrocarbon Storage Facil. | - | - | No | X | This facility does not meet the applicability criteria of this regulation. |
| <u>20.2.39</u> NMAC | Sulfur Recovery Plant - Sulfur | - | - | No | X | This facility is not a sulfur recovery plant, as defined. |

| <u>STATE REGULATIONS CITATION</u> | Title | Applies to Entire Facility | Applies to Unit No(s). | Federally Enforceable | Does Not Apply | JUSTIFICATION: Identify the applicability criteria, numbering each (i.e. 1. Post 7/23/84, 2. 75 m ³ , 3. VOL) |
|-----------------------------------|--|----------------------------|---|-----------------------|----------------|---|
| 20.2.61.109 NMAC | Smoke & Visible Emissions | - | VCU-1 | No | - | This regulation establishes controls on smoke and visible emissions from certain sources. Unit VCU-1 is subject to this regulation. The facility will meet all applicable requirements under this regulation. |
| 20.2.70 NMAC | Operating Permits | X | All | Yes | - | Source is currently permitted as major for NO _x and VOCs. This application will reduce NO _x emissions below the major source threshold. |
| 20.2.71 NMAC | Operating Permit Fees | X | All | Yes | - | This regulation establishes a schedule of operating permit emission fees. This facility is subject to 20.2.70 NMAC and is in turn subject to 20.2.71 NMAC. |
| 20.2.72 NMAC | Construction Permits | X | All | Yes | - | This facility is subject to 20.2.72 NMAC and NSR Permit number: 1313-M5-R4 |
| 20.2.73 NMAC | NOI & Emissions Inventory Requirements | X | All | Yes | - | Emissions Inventory Reporting: 20.2.73.300 NMAC applies. All Title V major sources meet the applicability requirements of 20.2.73.300 NMAC. |
| 20.2.74 NMAC | Permits – PSD | - | - | Yes | X | This facility is not PSD major as defined by: (1) Any stationary source listed in Table 1 of this Part (20.2.74.501 NMAC) which emits, or has the potential to emit, emissions equal to or greater than one hundred (100) tons per year of any regulated pollutant; or (2) Any stationary source not listed in Table 1 of this Part (20.2.74.501 NMAC) and which emits or has the potential to emit two hundred fifty (250) tons per year or more of any regulated pollutant; or (3) Any physical change that would occur at a stationary source not otherwise qualifying under paragraphs (1) or (2) of subsection Z of 20.2.74.7 NMAC if the change would constitute a major stationary source by itself; (4) A major source that is major for volatile organic compounds shall be considered major for ozone; (5) The fugitive emissions of a stationary source shall not be included in determining for any of the purposes of this section whether it is a major stationary source, unless the source belongs to one of the stationary source categories found in Table 1 of this Part (20.2.74.501 NMAC) or any other stationary source category which, as of August 7, 1980, is being regulated under section 111 or 112 of the Act. |
| 20.2.75 NMAC | Construction Permit Fees | X | - | Yes | - | This facility is subject to 20.2.72 NMAC and is in turn subject to the requirements of 20.2.75 NMAC. |
| 20.2.77 NMAC | New Source Performance | X | Unit 18 (Desobutanizer Reactor) TK-1 and TK-2 | Yes | - | This is a stationary source which is subject to the requirements of 40 CFR Part 60, as amended through September 23, 2013. |
| 20.2.78 NMAC | Emission Standards for HAPS | N/A | - | Yes | X | NESHAP M would apply in the case of asbestos demolition. |

| <u>STATE REGU- LATIONS CITATION</u> | Title | Applies to Entire Facility | Applies to Unit No(s). | Feder- ally Enfor- ce- able | Does Not Apply | JUSTIFICATION: Identify the applicability criteria, numbering each (i.e. 1. Post 7/23/84, 2. 75 m ³ , 3. VOL) |
|---|--|---|----------------------------------|--|-------------------------------|---|
| 20.2.79 NMAC | Permits – Nonattainment Areas | - | - | Yes | X | This regulation establishes the requirements for obtaining a nonattainment area permit. This facility is not located in a non-attainment area and is therefore not subject to this regulation. |
| 20.2.80 NMAC | Stack Heights | - | - | Yes | X | This regulation establishes requirements for the evaluation of stack heights and other dispersion techniques. This regulation does not apply as the facility is not equipped with any stacks that exceed Good Engineering Practice (GEP). |
| 20.2.82 NMAC | MACT Standards for source categories of HAPS | - | EG-1, FP-1, FP-2 | Yes | X | This regulation applies to the facility's emergency generator and fire pumps. |

Table for Applicable FEDERAL REGULATIONS:

| <u>FEDERAL REGULATIONS CITATION</u> | Title | Applies to Entire Facility | Applies to Unit No(s). | Federally Enforceable | Does Not Apply | JUSTIFICATION: |
|-------------------------------------|---|----------------------------|------------------------|-----------------------|----------------|--|
| 40 CFR 50 | NAAQS | X | - | Yes | - | 40 CFR 50 establishes National Ambient Air Quality Standards (NAAQS). The facility meets all applicable national ambient air quality standards for NO _x , CO, SO ₂ , H ₂ S, PM ₁₀ , and PM _{2.5} under this regulation. |
| NSPS 40 CFR 60, Subpart A | General Provisions | X | - | Yes | - | This regulation defines general provisions for relevant standards that have been set under this part. The facility is subject to this regulation because 40 CFR 60, Subpart KKK and Subpart Kb applies. |
| NSPS 40 CFR60.40 a, Subpart Da | Subpart Da, Performance Standards for Electric Utility Steam Generating Units | - | - | Yes | X | This regulation establishes standards of performance for electric utility steam generating units. This regulation does not apply as there are no electric utility steam generating units at this facility. |
| NSPS 40 CFR60.40b Subpart Db | Electric Utility Steam Generating Units | - | - | Yes | X | (a) The affected facility to which this subpart applies is each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 29 MW (100 million Btu/hour). This regulation does not apply because the facility does not operate any industrial-commercial-institutional steam generating units. |
| NSPS 40 CFR 60, Subpart Ka | Standards of Performance for Storage Vessels for Petroleum Liquids for which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984 | - | - | Yes | X | Not applicable as no facility petroleum liquid storage vessels commenced construction, reconstruction, or modification after May 18, 1978 and prior to July 23, 1984. |
| NSPS 40 CFR 60, Subpart Kb | Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 | - | Units TK-1, TK-2 | Yes | - | This facility has storage vessels, emission units TK-1 and TK-2, with a capacity greater than or equal to 75 cubic meters (m ³) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984. |

| FEDERAL REGULATIONS CITATION | Title | Applies to Entire Facility | Applies to Unit No(s). | Federally Enforceable | Does Not Apply | JUSTIFICATION: |
|---|--|-----------------------------------|------------------------------------|------------------------------|-----------------------|--|
| NSPS 40 CFR 60.330 Subpart GG | Stationary Gas Turbines | - | - | Yes | X | Not applicable as this facility does not have any stationary gas turbines. |
| NSPS 40 CFR 60, Subpart KKK | Leaks of VOC from Onshore Gas Plants | - | - | Yes | X | This regulation defines standards of performance for equipment leaks of VOC emissions from onshore natural gas processing plants for which construction, reconstruction, or modification commenced after January 10, 1984, and on or before August 23, 2011. The facility is not a natural gas processing plant. |
| NSPS 40 CFR Part 60 Subpart LLL | Standards of Performance for Onshore Natural Gas Processing: SO₂ Emissions | - | - | Yes | X | The facility is a natural gas processing plant, but does not include a sweetening unit followed by a sulfur recovery unit. |
| NSPS 40 CFR Part 60 Subpart NNN | Standards of Performance for VOC Emissions from Synthetic Organic Chemical Manufacturing Industry Distillation Operations | - | Unit 18 (Desobutanizer Reactor) | Yes | - | The affected source is a facility which was constructed, modified, or reconstruction commenced after December 30, 1983. The Butamer Deisobutanizer at this facility produces VOC emissions from synthetic organic chemical manufacturing industry distillation operations. |
| NSPS 40 CFR Part 60 Subpart RRR | Standards of Performance for VOC Emissions from Synthetic Organic Chemical Manufacturing Industry Reactor Processes | - | Unit 18 (Desobutanizer Reactor) | - | - | The deisobutanizer reactors at this facility produces VOC emissions from synthetic organic chemical manufacturing industry distillation operations. |
| NSPS 40 CFR Part 60 Subpart OOOO | Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution | - | - | Yes | X | The facility is not subject to this regulation because it does not contain equipment that meet the definition of an affected facility. |
| NSPS 40 CFR Part 60 Subpart JJJ | | - | FP-2 | Yes | - | This regulation establishes standards of performance for stationary spark ignition combustion engines. Unit FP-2 is a 320 hp emergency stationary RICE which was reconstructed after June 12, 2006 and hence, the facility is subject to this regulation. |
| NESHAP 40 CFR 61 Subpart A | General Provisions | X potentially | - | Yes | - | This part applies to the owner or operator of any stationary source for which a standard is prescribed under this part. There is one potentially applicable NESHAP (see discussion of 40 CFR 61, Subpart M below). |

| FEDERAL REGULATIONS CITATION | Title | Applies to Entire Facility | Applies to Unit No(s). | Federally Enforceable | Does Not Apply | JUSTIFICATION: |
|--|--|-----------------------------------|-------------------------------|------------------------------|-----------------------|---|
| NESHAP 40 CFR 61 Subpart M | National Emission Standards for Asbestos | X potentially | - | Yes | - | Although this standard does not apply to this facility under routine operating conditions, in the case of asbestos demolition, subpart M would apply. |
| NESHAP 40 CFR 61 Subpart E | National Emission Standards for Mercury | - | - | Yes | X | The activities regulated by this subpart are not present at this facility. |
| NESHAP 40 CFR 61 Subpart V | National Emission Standards for Equipment Leaks (Fugitive Emission Sources) | - | - | Yes | X | Not applicable as facility equipment does not operate in VHAP service. VHAP service means a piece of equipment either contains or contacts a fluid (liquid or gas) that is at least 10 percent by weight of VHAP. VHAP means a substance regulated under this subpart for which a standard for equipment leaks of the substance has been promulgated. Benzene is a VHAP (See 40 CFR 61 Subpart J). |
| MACT 40 CFR 63, Subpart A | General Provisions | - | Units EG-1, FP-1, FP-2 | Yes | - | This regulation defines general provisions for relevant standards that have been set under this part. The facility is subject to this regulation because MACT ZZZZ applies. |
| MACT 40 CFR 63.760 Subpart HH | Oil and Natural Gas Production Facilities | - | - | Yes | X | This regulation establishes national emission standards for hazardous air pollutants from oil and natural gas production facilities. This facility is not subject to the requirements of 40 CFR 63 Subpart HH since it is a minor source for HAPs and is not equipped with any affected area sources as described pursuant to this MACT. |
| MACT 40 CFR 63 Subpart HHH | | - | - | Yes | X | This facility is not subject to the requirements of 40 CFR 63 Subpart HHH since it is a minor source for HAPs and is not equipped with any affected area sources as described pursuant to this MACT. |
| MACT 40 CFR 63, Subpart EEEE | | - | - | Yes | X | The facility is not a major source of HAPs so it will not be subject to 40 CFR 63, Subpart EEEE. |
| MACT 40 CFR 63 Subpart ZZZZ | National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE MACT) | - | Units EG-1, FP-1, FP-2 | Yes | - | This regulation defines national emissions standards for HAPs for stationary reciprocating Internal Combustion Engines. Unit FP-2 is an existing unit which was reconstructed after June 12, 2006. It is a commercial emergency stationary RICE located at an area source of HAP emissions and meets the requirements of NSPS JJJJ. Units FP-1 and EG-1 are existing emergency RICE located at an area source of HAP emissions and are therefore exempt from requirements of this subpart. |
| MACT 40 CFR 63, Subpart BBBB | National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities | - | - | Yes | X | Not subject to MACT BBBB since the facility does not meet the definition of an affected source. |

| <u>FEDERAL REGULATIONS CITATION</u> | Title | Applies to Entire Facility | Applies to Unit No(s). | Federally Enforceable | Does Not Apply | JUSTIFICATION: |
|--|---|-----------------------------------|-------------------------------|------------------------------|-----------------------|--|
| NESHAP 40 CFR 64 | Compliance Assurance Monitoring | - | - | Yes | X | The rail loading (RC-LOAD) is a controlled major source. The VCU-1 is the control device for the rail loading. Since this is an NSR application, CAM applicability will be determined in the Title V application that is submitted for the facility. |
| NESHAP 40 CFR 68 | Chemical Accident Prevention | X | - | Yes | - | This facility is subject to 40 CFR 68 because it handles greater than threshold quantities of certain flammable substances. |
| Title IV – Acid Rain 40 CFR 72 | Acid Rain | - | - | Yes | X | Not applicable as facility is not an Acid Rain Source. |
| Title IV – Acid Rain 40 CFR 73 | Sulfur Dioxide Allowance Emissions | - | - | Yes | X | Not applicable as facility is not an Acid Rain Source. |
| Title IV – Acid Rain 40 CFR 76 | Acid Rain Nitrogen Oxides Emission Reduction Program | - | - | Yes | X | Not applicable as facility is not an Acid Rain Source. |
| Title VI – 40 CFR 82 | Protection of Stratospheric Ozone | - | - | Yes | X | Western owns appliances containing CFCs but Western uses only certified technicians for the maintenance, service, repair, and disposal of appliances and maintains the appropriate records for this requirement. Note: Disposal definition in 82.152: Disposal means the process leading to and including: (1) The discharge, deposit, dumping or placing of any discarded appliance into or on any land or water; (2) The disassembly of any appliance for discharge, deposit, dumping or placing of its discarded component parts into or on any land or water; or (3) The disassembly of any appliance for reuse of its component parts. “Major maintenance, service, or repair means” any maintenance, service, or repair that involves the removal of any or all of the following appliance components: compressor, condenser, evaporator, or auxiliary heat exchange coil; or any maintenance, service, or repair that involves uncovering an opening of more than four (4) square inches of “flow area” for more than 15 minutes. |

Section 14

Operational Plan to Mitigate Emissions

(submitting under 20.2.70, 20.2.72, 20.2.74 NMAC)

- Title V Sources** (20.2.70 NMAC): By checking this box and certifying this application the permittee certifies that it has developed an **Operational Plan to Mitigate Emissions During Startups, Shutdowns, and Emergencies** defining the measures to be taken to mitigate source emissions during startups, shutdowns, and emergencies as required by 20.2.70.300.D.5(f) and (g) NMAC. This plan shall be kept on site to be made available to the Department upon request. This plan should not be submitted with this application.
- NSR** (20.2.72 NMAC), **PSD** (20.2.74 NMAC) & **Nonattainment** (20.2.79 NMAC) **Sources:** By checking this box and certifying this application the permittee certifies that it has developed an **Operational Plan to Mitigate Source Emissions During Malfunction, Startup, or Shutdown** defining the measures to be taken to mitigate source emissions during malfunction, startup, or shutdown as required by 20.2.72.203.A.5 NMAC. This plan shall be kept on site to be made available to the Department upon request. This plan should not be submitted with this application.
- Title V** (20.2.70 NMAC), **NSR** (20.2.72 NMAC), **PSD** (20.2.74 NMAC) & **Nonattainment** (20.2.79 NMAC) **Sources:** By checking this box and certifying this application the permittee certifies that it has established and implemented a Plan to Minimize Emissions During Routine or Predictable Startup, Shutdown, and Scheduled Maintenance through work practice standards and good air pollution control practices as required by 20.2.7.14.A and B NMAC. This plan shall be kept on site or at the nearest field office to be made available to the Department upon request. This plan should not be submitted with this application.
-

Startup and shutdown procedures are either based on manufacturer's recommendations or based on Western's experience with specific equipment. These procedures are designed to proactively address the potential for malfunction to the greatest extent possible. These procedures dictate a sequence of operations that are designed to minimize emissions from the facility during events that result in shutdown and subsequent startup.

Equipment located at this facility is equipped with various safety devices and features that aid in the prevention of excess emissions in the event of an operational emergency. If an operational emergency does occur and excess emissions occur, Western will submit the required Excess Emissions Report as per 20.2.7 NMAC if any excess emissions occur beyond the requested total SSM/M emission limit. Corrective action to eliminate the excess emissions and prevent recurrence in the future will be undertaken as quickly as safety allows.

Section 15

Alternative Operating Scenarios

(submitting under 20.2.70, 20.2.72, 20.2.74 NMAC)

Alternative Operating Scenarios: Provide all information required by the department to define alternative operating scenarios. This includes process, material and product changes; facility emissions information; air pollution control equipment requirements; any applicable requirements; monitoring, recordkeeping, and reporting requirements; and compliance certification requirements. Please ensure applicable Tables in this application are clearly marked to show alternative operating scenario.

N/A – No alternative operating scenarios proposed with this application.

Section 16

Air Dispersion Modeling

NSR (20.2.72 NMAC) and PSD (20.2.74 NMAC) Modeling: Provide an air quality **dispersion modeling** demonstration (if applicable) as outlined in the Air Quality Bureau's Dispersion Modeling Guidelines. If air dispersion modeling has been waived for this permit application, attach the AQB Modeling Section modeling waiver documentation.

SSM Modeling: Applicants must conduct dispersion modeling for the total short term emissions using realistic worst case scenarios following guidance from the Air Quality Bureau's dispersion modeling section. Refer to "Guidance for Submittal of Startup, Shutdown, Maintenance Emissions in Permit Applications (http://www.nmenv.state.nm.us/aqb/permit/app_form.html) for more detailed instructions on SSM emissions modeling requirements.

Title V (20.2.70 NMAC) Modeling: Title V applications must specify the NSR Permit number for which air quality dispersion modeling was last submitted. Additionally, Title V facilities reporting new SSM emissions require modeling or a modeling waiver to demonstrate compliance with standards.

N/A – Western is submitting a modeling waiver with this application.

| | | |
|--|--|---|
| <p>New Mexico Environment Department Air Quality Bureau Modeling Section 525 Camino de Los Marquez - Suite 1 Santa Fe, NM 87505</p> <p>Phone: (505) 476-4300 Fax: (505) 476-4375 www.nmenv.state.nm.us/aqb</p> |  | <p>For Department use only:</p> <p>Approved: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Date:</p> <p>Approved by:</p> |
|--|--|---|

Air Dispersion Modeling Waiver Request Form

This form must be completed and submitted with all air dispersion modeling waiver requests.

If a permit is required, modeling is normally required for all pollutants, including state air toxics. In some cases, the demonstration that ambient air quality standards and PSD increments will not be violated can be satisfied with a discussion of previous modeling. The purpose of this form is to document and streamline requests to limit the new modeling that is submitted with an application. A waiver may be requested by e-mailing the completed form to the modeling manager, sufi.mustafa@state.nm.us. Permitting staff must approve the total emission rates during the permitting process for this waiver to be valid.

Contact and facility information:

| | |
|------------------------------|--|
| Contact name | Jane Romero Kotovsky |
| E-mail Address: | jromero@trinityconsultants.com |
| Phone | 505-266-6611 |
| Facility Name | Western Refining Wingate Facility |
| Air Quality Permit Number(s) | 1313-M5R4 |
| AI Number (if known) | 884 |

General Comments:

The Western Refining Wingate Facility (Wingate) is owned and operated by Western Refining Southwest, Inc. (Western). Western is proposing to modify the Western Refining Wingate Facility NSR Permit (1313-M5R4) through a Significant Revision (20.2.72.219.D NMAC). Currently the facility is authorized as a gas processing plant including loading and unloading liquefied petroleum gas (LPG), such as propane, butane, and natural gasoline to and from pressurized storage tanks to railcars or trucks. With this application, Western is seeking authorization to change the primary function of the facility to a crude oil transloading facility. A vapor combustion unit (unit VCU-1) will be added to control emissions from the railcar loading of crude oil. In addition to these changes, all boilers will be removed from the facility.

After the proposed changes, only emissions of NO_x and CO at the facility will be from the vapor combustion unit. Emissions of NO_x, CO, PM, and SO₂ will be reduced significantly with this application. Table 2 on the following page shows the proposed emission rates compared to currently permitted emission rates. Proposed facility-wide emissions of SO₂, PM₃₀, PM₁₀, and PM_{2.5} are less than 1 pound per hour and proposed H₂S emissions are less than 0.1 pound per hour. Accordingly, modeling is not required for SO₂, PM, PM₁₀, PM_{2.5}, and H₂S to demonstrate that facility emissions will neither cause nor contribute to an exceedance of the standards. The facility will continue to operate as a Title V major source and a PSD minor source after the proposed changes.

Western believes an air dispersion modeling analysis is not required to demonstrate that the facility will neither cause nor contribute to an exceedance of the New Mexico Ambient Air Quality Standards (NMAAQS), National Ambient Air Quality Standards (NAAQS), or the PSD Increment standards.

Section 1: Toxic air pollutants

Section 1 Comments:

The facility has no toxic air pollutants which require modeling.

Section 2: Pollutants with very low emission rates

Section 2 Comments:

The facility-wide PM, SO₂, and H₂S emissions are all very low emission rates. Table 1 below shows the facility-wide requested allowable emission rates for these pollutants. Modeling is not required for SO₂, PM, PM₁₀, and PM_{2.5} to demonstrate that facility emissions will neither cause nor contribute to an exceedance of the standards.

Table 1: List of Pollutants with very low emission rates (PTE)

| Pollutant | Requested Allowable Emission Rate From Facility (pounds/hour) | Release Type (select "all from stacks" or "other") | Waiver Threshold (lb/hr) |
|-------------------|---|--|--------------------------|
| PM ₃₀ | 0.67 | Stack and Haul Roads | 1.0 |
| PM ₁₀ | 0.25 | Stack and Haul Roads | 1.0 |
| PM _{2.5} | 0.17 | Stack and Haul Roads | 1.0 |
| SO ₂ | 0.34 | Stack | 1.0 |
| H ₂ S | 0.089 | Stack | 0.1 |

Section 3: Pollutants that have previously been modeled at equal or higher emission rates

Section 3 Comments:

Emissions of NO_x, CO, PM, and SO₂ will be reduced significantly compared to currently permitted emission rates. Table 2 below shows the proposed emissions compared to currently permitted emission rates. Table 3 shows the previously modeled NO_x and CO emission rates. Proposed NO_x and CO emission rates are much lower than previously modeled.

Table 2: Proposed Emission Rates Compared to Currently Permitted Emission Rates

| | NO _x (lb/hr) | CO (lb/hr) | SO ₂ (lb/hr) | PM ₃₀ (lb/hr) | PM ₁₀ (lb/hr) | PM _{2.5} (lb/hr) |
|---|-------------------------|------------|-------------------------|--------------------------|--------------------------|---------------------------|
| Currently Permitted Emission Rates (NSR Permit 1313-M5R4) | 53.9 | 30.3 | 0.3 | 3.1 | 3.1 | 3.1 |
| Proposed Emission Rates | 4.9 | 12.2 | 0.34 | 0.67 | 0.25 | 0.17 |
| Change in PTE | - 49.0 | - 18.1 | 0.04 | -2.43 | -5.85 | -2.93 |

Table 3: List of previously modeled pollutants (facility-wide PTE)

| Pollutant | Averaging period | Previously modeled emission rate (pounds/hour) | Proposed emission rate (pounds/hour) | Modeled minus proposed emissions (lb/hr) | Modeled percent of standard or increment |
|-----------------|------------------|--|--------------------------------------|--|--|
| NO _x | 24-hr | 105.6 | 4.9 | -100.7 | 86% NMAAQs |
| NO _x | annual | 105.6 | 4.9 | -100.7 | 62% NMAAQs 58% NAAQS 8% PSD Class II |
| CO | 1-hr | 79.0 | 12.2 | -66.8 | 14% NMAAQs 13% NAAQS |
| CO | 8-hr | 79.0 | 12.2 | -66.8 | 5% NMAAQs 2% NAAQS |

Appendix 1: Stack Height Release Correction Factor (adapted from 20.2.72.502 NMAC)

| Release Height in Meters | Correction Factor |
|--------------------------|-------------------|
| 0 to 9.9 | 1 |
| 10 to 19.9 | 5 |
| 20 to 29.9 | 19 |
| 30 to 39.9 | 41 |
| 40 to 49.9 | 71 |
| 50 to 59.9 | 108 |
| 60 to 69.9 | 152 |
| 70 to 79.9 | 202 |
| 80 to 89.9 | 255 |
| 90 to 99.9 | 317 |
| 100 to 109.9 | 378 |
| 110 to 119.9 | 451 |
| 120 to 129.9 | 533 |
| 130 to 139.9 | 617 |
| 140 to 149.9 | 690 |
| 150 to 159.9 | 781 |
| 160 to 169.9 | 837 |
| 170 to 179.9 | 902 |
| 180 to 189.9 | 1002 |
| 190 to 199.9 | 1066 |
| 200 or greater | 1161 |

Appendix 2. Very small emission rate modeling waiver requirements

| Type of emissions | Modeling is waived if emissions of a pollutant for the entire facility (including haul roads) are below the amount: |
|-------------------|---|
| Point source | 0.1 lb/hr of H ₂ S or reduced sulfur, 1.0 lb/hr for other pollutants |
| Fugitive sources | 0.01 lb/hr of H ₂ S or reduced sulfur, 0.1 lb/hr for other pollutants |

Section 17

Compliance Test History

(submitting under 20.2.70, 20.2.72, 20.2.74 NMAC)

To show compliance with existing NSR permits conditions, you must submit a compliance test history. The table below provides an example.

The facility does not have compliance test requirements.

Section 20

Other Relevant Information

Other relevant information. Use this attachment to clarify any part in the application that you think needs explaining. Reference the section, table, column, and/or field. Include any additional text, tables, calculations or clarifying information.

Additionally, the applicant may propose specific permit language for AQB consideration. In the case of a revision to an existing permit, the applicant should provide the old language and the new language in track changes format to highlight the proposed changes. If proposing language for a new facility or language for a new unit, submit the proposed operating condition(s), along with the associated monitoring, recordkeeping, and reporting conditions. In either case, please limit the proposed language to the affected portion of the permit.

N/A – No other relevant information.

Section 22

Green House Gas Applicability

(submitting under 20.2.70, 20.2.72, 20.2.73, 20.2.74 NMAC)

Title V (20.2.70 NMAC), NSR (20.2.72 NMAC), NOI (20.2.73 NMAC) and PSD (20.2.74 NMAC) applicants must determine if they are subject to Title V permitting and/or PSD permitting for green house gas (GHG) emissions. GHG emissions are the sum of the aggregate group of six green house gases that include carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). There are two thresholds that must be computed to determine applicability. The first threshold is the sum of GHG mass emissions in TPY. GHG mass emissions are the sum of the total annual tons of green house gases without adjusting with the GWPs. The second threshold is the sum of CO₂ equivalent (CO₂e) emissions in TPY GHG. CO₂e emissions are the sum of the mass emissions of each individual GHG multiplied by its global warming potential (GWP) found in Table A-1 in 40 CFR 98 Mandatory Greenhouse Gas Reporting.

Green House Gas TV and PSD Applicability Determination:

Notice of Intent Sources (20.2.73 NMAC): By checking this box and certifying this application the applicant certifies that the facility, based upon the quantity of stack emissions, including start up, shut down, and maintenance emissions, is not subject to 20.2.70 NMAC or 20.2.74 NMAC for Green House Gas (GHG) Emissions. The Department may request the emissions calculations and other documents supporting this determination.

Minor NSR (20.2.72 NMAC), PSD Major (20.2.74 NMAC), and Title V (20.2.70 NMAC) sources must complete the steps outlined below to determine GHG TV and/or PSD applicability.

1. Calculate existing mass GHG and CO₂e emissions from your source. For PSD purposes, if this is a modification to an existing source, you must also calculate the increase in mass GHG and CO₂e emissions due to the modification. Start up, shut down, and maintenance emissions must be included.
2. See Tables 1 and 2 below and compare your mass GHG and CO₂e emissions to the appropriate category for your source.
3. If your source meets all of the criteria within a category, then you must obtain a PSD permit and/or a Title V permit for green house gas emissions.
4. If this is a GHG Major source with an existing BACT or if this is a permit application for a PSD or Title V permit with GHG above the thresholds in Tables 1 or 2, include the emissions calculations and supporting documents in the appropriate sections of this application unless instructed otherwise in Tables 1 or 2. Report GHG mass and CO₂e emissions in Table 2-P of this application unless instructed otherwise in Tables 1 or 2. Emissions are reported in short tons per year and represent each emission unit's Potential to Emit (PTE).

NSR (20.2.72 NMAC), PSD Major (20.2.74 NMAC), and Title V (20.2.70 NMAC): Based upon the GHG applicability criteria in this section the applicant certifies that the source is (check all that apply):

- Title V Minor and PSD Minor for GHG Emissions [The Department may request the emissions calculations and other documents supporting this determination.]
- Title V Major for GHG Emissions
- PSD Major for GHG Emissions

Table 1 - Title V Applicability Criteria

| On or after July 1, 2011, newly constructed source, or existing source that does not have a Title V permit | On or after July 1, 2011, modification or Renewal to Existing Title V Source | Requirement |
|---|--|---|
| Source emits or has potential to emit (PTE) ≥ 100,000 TPY CO ₂ e and 100 TPY GHG mass basis | Source emits or has PTE of ≥100,000 TPY CO ₂ e and 100 TPY GHG mass basis | For new sources: For a source that meets the criteria on July 1, 2011, submit a Title V permit application no later than June 30, 2012. |

Table 1 - Title V Applicability Criteria

| | | |
|--|--|---|
| | | <p>For a source that meets the criteria after July 1, 2011, submit a Title V application within 12 months of becoming subject to the GHG operating permit program (12 months from commencement of operation of the new unit or modification that caused the source to be subject to Title V).</p> <p><u>For existing sources:</u> Include GHG with the next Title V application for a renewal or modification.</p> <p><u>For both new and existing sources:</u> Include in the TV application, GHG emissions calculations and supporting documents, report CO₂e and GHG emissions in Table 2-P, and address any applicable CAA requirements (e.g. PSD BACT, NSPS). If there are no applicable requirements and if GHG emissions have been reported to the Department under 20.2.73 NMAC, the requirements of the previous sentence do not apply, but changes in GHG emissions resulting in GHG emission limits must be calculated and reported in Table 2-P for Title V permit modifications. Typically GHG emission limits would be established only when there is an applicable requirement, such as a PSD GHG BACT or limits taken to be GHG synthetic minor.</p> |
|--|--|---|

Table 2 - PSD Applicability Criteria

| On or After July 1, 2011, New Source | On or After July 1, 2011, Major Modification to Existing PSD Major Source | On or After July 1, 2011, Modification to Existing PSD Minor Source | Requirement |
|--|--|---|--|
| <p>Source is subject to PSD for another pollutant and GHG PTE is \geq than 75,000 tpy CO₂e</p> <p>or</p> <p>GHG PTE is \geq 100,000 TPY CO₂e and \geq 100/250 TPY mass basis</p> | <p>Source is subject to PSD for another regulated pollutant and net GHG emissions increase is \geq 75,000 tpy CO₂e and greater than zero TPY mass basis</p> <p>or</p> <p>existing source has GHG PTE \geq 100,000 TPY CO₂e and \geq 100/250 TPY mass basis and net emissions GHG increase is \geq 75,000 TPY</p> | <p>Actual or potential emissions of GHGs from the modification is \geq 100,000 TPY CO₂e and \geq 100/250 TPY mass basis.</p> <p>Minor PSD sources cannot net out of PSD review.</p> | <p>The source is subject to PSD permitting for GHG emissions and other regulated pollutants that are significant. In the application include GHG emissions calculations and supporting documents, report CO₂e and GHG emissions in Table 2-P, complete a GHG BACT determination, and include the TPY CO₂e and GHG mass emissions in the public notice.</p> <p>Note: If a minor source permit is issued after January 2, 2011, but before July 1, 2011, and construction has not commenced by July 1, 2011, the permit must be</p> |

Table 2 - PSD Applicability Criteria

| | | | |
|--|--|--|--|
| | CO ₂ e and greater than zero TPY mass basis | | cancelled, reopened, or an additional PSD permitting action taken, if the approved change/construction would trigger GHG PSD after July 1, 2011. |
|--|--|--|--|

Additional Information:**Sources for Calculating GHG Emissions:**

- Manufacturer's Data
- AP-42 Compilation of Air Pollutant Emission Factors at <http://www.epa.gov/ttn/chief/ap42/index.html>
- EPA's Internet emission factor database WebFIRE at <http://cfpub.epa.gov/webfire/>
- Subparts C through UU of 40 CFR 98 Mandatory Green House Gas Reporting except that tons should be reported in short tons rather than in metric tons for the purpose of PSD and TV applicability.
- API Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry. August 2009 or most recent version.
- Sources listed on EPA's NSR Resources for Estimating GHG Emissions at <http://www.epa.gov/nsr/ghgresources.html>:
 - ENERGY STAR Industrial Sector Energy Guides and Plant Energy Performance Indicators (benchmarks) <http://www.energystar.gov>;
 - US EPA National Greenhouse Gas Inventory, <http://epa.gov/climatechange/emissions/usinventoryreport.html>;
 - EPA's Climate Leaders, <http://www.epa.gov/climateleaders/index.html>
 - EPA Voluntary Partnerships of GHG Reductions that include the landfill methane outreach program, the CHP partnership program, the Green Power Partnership, the Coalbed Methane Outreach program, the Natural Gas STAR program, and the Voluntary Aluminum Industrial Partnership.
 - SF Emission Reduction Partnership for the Magnesium Industry <http://www.epa.gov/highgwp/magnesium-sf6/index.html>
 - PFC Reduction/Climate Partnership for the Semiconductor Industry <http://www.epa.gov/highgwp/semiconductor-pfc/index.html>

Global Warming Potentials (GWP):

Applicants must use the Global Warming Potentials codified in Table A-1 of the most recent version of 40 CFR 98 Mandatory Greenhouse Gas Reporting. Please note that sources not subject to 40 CFR 98 and/or 20.2.300 NMAC may still be subject to the GHG PSD and/or TV permitting. The GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to that of one unit mass of CO₂ over a specified time period.

"Greenhouse gas" for the purpose of this part is defined as the aggregate group of the following six gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. (**20.2.70.7.O NMAC, 20.2.74.7.Y NMAC**). You may also find GHGs defined in 40 CFR 86.1818-12(a).

Short Tons:

Short tons for GHGs and other regulated pollutants are the standard unit of measure for PSD and title V permitting programs. 40 CFR 98 Mandatory Greenhouse Reporting requires metric tons.

1 metric ton = 1.10231 short tons (per Table A-2 to Subpart A of Part 98 – Units of Measure Conversions)

EPA's GHG Tailoring Rule:

To review EPA's final GHG Tailoring rule and pre-ambble, See "Final GHG Tailoring Rule dated May 13, 2010 located on EPA's NSR Regulations Webpage or Federal Register June 3, 2010 Volume 75, No. 106 <http://www.epa.gov/nsr/actions.html>

EPA Permitting Guidance:

EPA's Permitting Guidance for GHG and other GHG information can be found on EPA's NSR Clear Air Act Permitting for Greenhouse Gases webpage.

<http://www.epa.gov/nsr/ghgpermitting.html>

Section 23: Certification

Company Name: Western Refining

I, William McClain, hereby certify that the information and data submitted in this application are true and as accurate as possible, to the best of my knowledge and professional expertise and experience.

Signed this 15 day of June, 2015, upon my oath or affirmation, before a notary of the State of

New Mexico

William Carl McClain
*Signature

June 15, 2015
Date

William Carl McClain
Printed Name

Refinery Mgr.
Title

Scribed and sworn before me on this 15 day of June, 2015

My authorization as a notary of the State of NEW MEXICO expires on the

30th day of AUGUST, 2016

Alvin Dorsey
Notary's Signature

06-15-15
Date

Alvin Dorsey
Notary's Printed Name

*For Title V applications, the signature must be of the Responsible Official as defined in 20.2.70.7.AE NMAC.



OFFICIAL SEAL
ALVIN DORSEY
NOTARY PUBLIC-STATE OF NEW MEXICO

My commission expires: 08-30-2016