



August 18, 2016

Mr. Steven Pursley, P.E.
NSR Permitting Program Engineer
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

**Subject: TRANSFLO Terminal Services, Inc., Fairmont, West Virginia
Air Permit Class II Administrative Update, WV DEP Permit R13-2962**

Dear Mr. Pursley:

TRANSFLO Terminal Services, Inc. (TRANSFLO) operates the above referenced material transloading facility located in Fairmont, West Virginia. TRANSFLO also operates a material transloading operation in Clarksburg, West Virginia. These two facilities are located approximately 20 miles apart. Due to current business conditions (i.e., somewhat reduced operating volumes), TRANSFLO is consolidating the two operations to the Fairmont facility. That is, the operations at Clarksburg will be moved to the Fairmont facility.

One consequence of this consolidation is an additional material, ammonium nitrate, being transferred at the Fairmont facility. A permit determination request was submitted to the West Virginia Department of Environmental Protection (WV DEP) in June 2016 regarding this additional material. The WV DEP determined (Determination Number PD-16-039) that a Class II Administrative permit update would be required for this additional material, based on the uncontrolled potential emissions from the material transfer exceeding 6 pounds per hour and 10 pounds per year. This letter, permit application form, and various attachments constitute the application for this Class II Administrative permit update.

The recent permit determination request contained information regarding the permit history and permit status for these two facilities. This information is unchanged since the June 2016 submittal, and is therefore not repeated in this permit application.

This permit application is organized in the following fashion:

1. Process Description;
2. Emission Estimates;
3. Regulatory Applicability;
4. Project Schedule; and,
5. Suggested Permit Updates.

Process Description

Ammonium nitrate transloading is a direct transfer; that is, with no intermediate storage of the material. The ammonium nitrate is transferred between railcars and trucks using a covered conveyor which includes an integral baghouse for particulate matter control. The baghouse manufacturer guarantee for particulate matter emissions are used to estimate emissions for the emission point from the baghouse exhaust. The particulate matter emission estimates (Attachment N) are discussed following in this letter. These estimates also include photographs of typical transfer operations, which supplement the process flow diagram (PFD) provided in Attachment F.

The baghouse has a filter bag assembly, and does not have individual bags. The total filter cloth area is 100 square feet. It is divided into 18 envelopes. Shake cleaning is used to periodically clean the bags. There are two versions of the baghouse that are in service as provided by TRANSFLO's equipment vendor, Rail Barge Truck Services, Inc. (RBT). The first version is an electric powered model, which has a timer that is used to initiate the shake cleaning. The timers are adjusted by the site as required to optimize performance. The second version involves a hydraulic motor for the bag shake, which is manually engaged.

Emission Estimates

Emission estimates for ammonium nitrate transfer operations are provided in Attachment N and summarized following. Emissions are estimated for particulate matter (PM), particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀), and particulate matter with an aerodynamic diameter of 2.5 microns or less (PM_{2.5}). Emissions from the conveyor transfer points are estimated using the "drop equation" of the United States Environmental Protection Agency (U.S. EPA) AP-42, Section 13.2.4, *Aggregate Handling and Storage Piles*, November 2006 edition. Emissions from the baghouse exhaust are estimated using the equipment manufacturer emissions guarantee. The estimated actual controlled emissions from the ammonium nitrate transfer operations are summarized following:

- Actual PM emissions;
 - 0.78 pounds per hour (lbs/hr); and,
 - 0.05 tons per year (tpy);
- Actual PM₁₀ emissions;
 - 0.40 lbs/hr; and,
 - 0.02 tpy;
- Actual PM_{2.5} emissions;
 - 0.10 lbs/hr; and,
 - 0.01 tpy;
- Potential PM emissions;
 - 0.78 lbs/hr; and,
 - 0.13 tpy;
- Potential PM₁₀ emissions;
 - 0.40 lbs/hr; and,
 - 0.07 tpy;
- Potential PM_{2.5} emissions;
 - 0.10 lbs/hr; and,
 - 0.02 tpy.

The anticipated actual ammonium nitrate material throughput rate is 6,000 tons per year (i.e., 60 railcars at 100 tons each). This value is the actual quantity of material transloaded at the Clarksburg facility from June 2015 through May 2016. The transfer volumes are not expected to change as result of the relocation of the transfer operations.

The potential material throughput is estimated as 2.8 times the recent actual throughput, which results in 168 railcars per year. This 2.8 factor is the ratio of continuous operation (24 hours per day, 7 days per week) to the typical facility operating schedule (10 hours per day, 6 days per week). This approach for estimating potential emissions is found to work quite well for TRANSFLO's system wide operations. Based on experience, this value conservatively accounts for (i.e., overestimates) typical increases in transfer volumes that occur from changes in market conditions. Other changes that would substantially increase material volume, such as securing a new customer for an existing material, would undergo internal review by TRANSFLO's Health, Safety, Environmental, and Quality (HSE&Q) staff. Thus, it is believed that the 2.8 ratio of potential to actual emissions is appropriate for the ammonium nitrate transfer operations.

Regulatory Applicability

The Fairmont facility currently transloads other solid material products (i.e., frac sand and cement) in a similar process (i.e., direct transfer between railcars and trucks) used for ammonium nitrate. The regulatory applicability for the ammonium nitrate transfer operations is the same as for these other products. That is, there are no changes from the regulatory requirements in the current construction permit and as was provided in the underlying permit application submitted in July 2012.

Project Schedule

The ammonium nitrate transfer operations commenced at the Fairmont facility on May 31, 2016. Discussions with the WV DEP regarding this material occurred in early June 2016. A permit determination request was provided in June 2016. This permit application is submitted per the WV DEP permit determination issued in July 2016.

Suggested Permit Updates

The following suggested permit updates are provided to add an emission unit for the ammonium nitrate transfer operations to the construction permit. The permit currently has three emission units permitted:

1. EU 01 – Direct Transfer of Frac Sand;
2. EU 02 – Frac Sand Transfer with Storage; and,
3. EU 03 – Direct Transfer of Cement.

It is suggested to add a fourth emission unit (EU), EU 04, for Direct Transfer of Ammonium Nitrate. This emission unit should be added to the tabular listing of emission units in Table 1.0. The following information (Table 1) is provided in the format of this existing table:

Table 1: Emission Unit Description

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
Direct Transfer of Ammonium Nitrate					
EU 04	XFER41	railcar to conveyor transfer	2016	50 tph	Baghouse
	XFER42	conveyor to truck transfer	2016	50 tph	Baghouse
	RET41	conveyor return	2016	15 lb/hr	None
	BHEX31	baghouse exhaust	2016	600 cfm	NA

Permit Condition 4.1 provides emission limits for PM, PM₁₀, and PM_{2.5} from the current emission units. Table 2 contains the suggested emission limits in the format of the tables in Condition 4.1.

Table 2: Suggested Emission Limits

	PM		PM ₁₀		PM _{2.5}	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Transfer Points	0.73	0.12	0.35	0.06	0.05	0.01
Baghouse	0.05	0.01	0.05	0.01	0.05	0.01
Total	0.78	0.13	0.40	0.07	0.10	0.02

Conditions 4.1.5 through 4.1.7 provide annual material throughput limits for frac sand and cement. A similar condition is proposed for the ammonium nitrate:

The facility's annual throughput of ammonium nitrate shall not exceed 16,800 tons per year. Compliance with this limit shall be based on a 12 month rolling total.

Conditions 4.3.4 through 4.3.6 provide for monthly monitoring of material throughput for frac sand and cement. A similar condition is proposed for the ammonium nitrate:

In order to determine compliance with the throughput requirement of section 4.1.# of this permit the permittee shall monitor and record the total amount of ammonium nitrate processed through the facility on a monthly basis.

Closing

Should you have any questions as you review this Class II Administrative permit update, please contact me by telephone at (904) 494-4200, or by e-mail at haitinc@gmail.com. Ms. Becky Heilman, TRANSFLO Manager; HSE&Q may also be reached by telephone at (904) 359-1337 or by e-mail at bheilman@transflo.net.

Sincerely,



Mitchell J. Hait, Ph.D., P.E.
President

Attachments:**1 – Permit Application Form**

- Attachment A – Business Certificate
- Attachment B – Area Map
- Attachment C – Installation and Start Up Schedule
- Attachment D – Regulatory Discussion
- Attachment E – Plot Plan
- Attachment F – Process Flow Diagram
- Attachment G – Process Description
- Attachment H – MSDS
 - Ammonium Nitrate
- Attachment I – Emission Units Table
- Attachment J – Emission Points Data Summary Sheet (Tables 1 and 2)
- Attachment K – Fugitive Emissions Data Summary Sheet
- Attachment L – Emissions Unit Data Sheets
- Attachment M – Air Pollution Control Device
 - Form 2236
 - Manufacturer Information
- Attachment N – Supporting Emission Estimates
- Attachment O – Monitoring, Recordkeeping, Reporting and Testing Plans
 - Typical Conveyor Inspection Sheet
 - Database Report
- Attachment P – Public Notice
- Attachment Q – Intentionally Left Blank
- Attachment R – Authority of Corporation

Permit application fee \$300 (per Steven Pursley, August 3, 2016)

Permit Application Forms
West Virginia Permit Application Form NSR Permit



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY

601 57th Street, SE
Charleston, WV 25304
(304) 926-0475
www.dep.wv.gov/daq

**APPLICATION FOR NSR PERMIT
AND
TITLE V PERMIT REVISION
(OPTIONAL)**

PLEASE CHECK ALL THAT APPLY TO **NSR (45CSR13)** (IF KNOWN):

- CONSTRUCTION** **MODIFICATION** **RELOCATION**
 CLASS I ADMINISTRATIVE UPDATE **TEMPORARY**
 CLASS II ADMINISTRATIVE UPDATE **AFTER-THE-FACT**

PLEASE CHECK TYPE OF **45CSR30 (TITLE V)** REVISION (IF ANY):

- ADMINISTRATIVE AMENDMENT** **MINOR MODIFICATION**
 SIGNIFICANT MODIFICATION

IF ANY BOX ABOVE IS CHECKED, INCLUDE TITLE V REVISION INFORMATION AS **ATTACHMENT S** TO THIS APPLICATION

FOR TITLE V FACILITIES ONLY: Please refer to "Title V Revision Guidance" in order to determine your Title V Revision options (Appendix A, "Title V Permit Revision Flowchart") and ability to operate with the changes requested in this Permit Application.

Section I. General

1. Name of applicant (as registered with the WV Secretary of State's Office): TRANSFLO Terminal Services, Inc.		2. Federal Employer ID No. (FEIN): 59-3165558	
3. Name of facility (if different from above): Fairmont TRANSFLO Terminal		4. The applicant is the: <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> OPERATOR <input type="checkbox"/> BOTH	
5A. Applicant's mailing address: 500 Water Street, J975 Jacksonville, FL 32202		5B. Facility's present physical address: 900 Washington Street Fairmont, WV 26554	
6. West Virginia Business Registration. Is the applicant a resident of the State of West Virginia? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO – If YES , provide a copy of the Certificate of Incorporation/Organization/Limited Partnership (one page) including any name change amendments or other Business Registration Certificate as Attachment A . – If NO , provide a copy of the Certificate of Authority/Authority of L.L.C./Registration (one page) including any name change amendments or other Business Certificate as Attachment A .			
7. If applicant is a subsidiary corporation, please provide the name of parent corporation: CSX Corporation			
8. Does the applicant own, lease, have an option to buy or otherwise have control of the <i>proposed site</i> ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO – If YES , please explain: Site is leased from the CSX Corporation – If NO , you are not eligible for a permit for this source.			
9. Type of plant or facility (stationary source) to be constructed, modified, relocated, administratively updated or temporarily permitted (e.g., coal preparation plant, primary crusher, etc.): Material Transloading		10. North American Industry Classification System (NAICS) code for the facility: 488210	
11A. DAQ Plant ID No. (for existing facilities only): 049 – 00149		11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only): R13-2962	

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

<p>12A.</p> <ul style="list-style-type: none"> For Modifications, Administrative Updates or Temporary permits at an existing facility, please provide directions to the <i>present location</i> of the facility from the nearest state road; For Construction or Relocation permits, please provide directions to the <i>proposed new site location</i> from the nearest state road. Include a MAP as Attachment B. <p>I-79 North to Exit 136 to Co Rd 21/2/Stoney Road, 0.4 miles turn left on Fairmont Gateway Connector N/W Virginia 273 N, 0.8 miles straight through traffic circle, 0.2 miles continue on Jefferson Street, 0.3 miles turn right on Washington Street, 0.7 miles to TRANSFLO on right.</p>		
12.B. New site address (if applicable): n/a	12C. Nearest city or town: Fairmont	12D. County: Marion
12.E. UTM Northing (KM): 4371.04810	12F. UTM Easting (KM): 574.73299	12G. UTM Zone: 17
<p>13. Briefly describe the proposed change(s) at the facility: See enclosed letter, add ammonium nitrate transfer operations</p>		
<p>14A. Provide the date of anticipated installation or change: 05/31/2016</p> <ul style="list-style-type: none"> If this is an After-The-Fact permit application, provide the date upon which the proposed change did happen: 05/31/2016 		<p>14B. Date of anticipated Start-Up if a permit is granted: / /</p>
<p>14C. Provide a Schedule of the planned Installation of/Change to and Start-Up of each of the units proposed in this permit application as Attachment C (if more than one unit is involved).</p>		
<p>15. Provide maximum projected Operating Schedule of activity/activities outlined in this application: Hours Per Day 24 Days Per Week 7 Weeks Per Year 52</p>		
<p>16. Is demolition or physical renovation at an existing facility involved? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p>		
<p>17. Risk Management Plans. If this facility is subject to 112(r) of the 1990 CAAA, or will become subject due to proposed changes (for applicability help see www.epa.gov/ceppo), submit your Risk Management Plan (RMP) to U. S. EPA Region III.</p>		
<p>18. Regulatory Discussion. List all Federal and State air pollution control regulations that you believe are applicable to the proposed process (<i>if known</i>). A list of possible applicable requirements is also included in Attachment S of this application (Title V Permit Revision Information). Discuss applicability and proposed demonstration(s) of compliance (<i>if known</i>). Provide this information as Attachment D.</p>		
<p>Section II. Additional attachments and supporting documents.</p>		
<p>19. Include a check payable to WVDEP – Division of Air Quality with the appropriate application fee (per 45CSR22 and 45CSR13).</p>		
<p>20. Include a Table of Contents as the first page of your application package.</p>		
<p>21. Provide a Plot Plan, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is or is to be located as Attachment E (Refer to Plot Plan Guidance).</p> <ul style="list-style-type: none"> Indicate the location of the nearest occupied structure (e.g. church, school, business, residence). 		
<p>22. Provide a Detailed Process Flow Diagram(s) showing each proposed or modified emissions unit, emission point and control device as Attachment F.</p>		
<p>23. Provide a Process Description as Attachment G.</p> <ul style="list-style-type: none"> Also describe and quantify to the extent possible all changes made to the facility since the last permit review (if applicable). 		
<p>All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.</p>		

24. Provide **Material Safety Data Sheets (MSDS)** for all materials processed, used or produced as **Attachment H**.
 – For chemical processes, provide a MSDS for each compound emitted to the air.

25. Fill out the **Emission Units Table** and provide it as **Attachment I**.

26. Fill out the **Emission Points Data Summary Sheet (Table 1 and Table 2)** and provide it as **Attachment J**.

27. Fill out the **Fugitive Emissions Data Summary Sheet** and provide it as **Attachment K**.

28. Check all applicable **Emissions Unit Data Sheets** listed below:

<input type="checkbox"/> Bulk Liquid Transfer Operations	<input type="checkbox"/> Haul Road Emissions	<input type="checkbox"/> Quarry
<input type="checkbox"/> Chemical Processes	<input type="checkbox"/> Hot Mix Asphalt Plant	<input type="checkbox"/> Solid Materials Sizing, Handling and Storage Facilities
<input type="checkbox"/> Concrete Batch Plant	<input type="checkbox"/> Incinerator	<input type="checkbox"/> Storage Tanks
<input type="checkbox"/> Grey Iron and Steel Foundry	<input type="checkbox"/> Indirect Heat Exchanger	
<input checked="" type="checkbox"/> General Emission Unit, specify Solid material transloading		

Fill out and provide the **Emissions Unit Data Sheet(s)** as **Attachment L**.

29. Check all applicable **Air Pollution Control Device Sheets** listed below:

<input type="checkbox"/> Absorption Systems	<input checked="" type="checkbox"/> Baghouse	<input type="checkbox"/> Flare
<input type="checkbox"/> Adsorption Systems	<input type="checkbox"/> Condenser	<input type="checkbox"/> Mechanical Collector
<input type="checkbox"/> Afterburner	<input type="checkbox"/> Electrostatic Precipitator	<input type="checkbox"/> Wet Collecting System
<input type="checkbox"/> Other Collectors, specify		

Fill out and provide the **Air Pollution Control Device Sheet(s)** as **Attachment M**.

30. Provide all **Supporting Emissions Calculations** as **Attachment N**, or attach the calculations directly to the forms listed in Items 28 through 31.

31. **Monitoring, Recordkeeping, Reporting and Testing Plans.** Attach proposed monitoring, recordkeeping, reporting and testing plans in order to demonstrate compliance with the proposed emissions limits and operating parameters in this permit application. Provide this information as **Attachment O**.
 ➤ Please be aware that all permits must be practically enforceable whether or not the applicant chooses to propose such measures. Additionally, the DAQ may not be able to accept all measures proposed by the applicant. If none of these plans are proposed by the applicant, DAQ will develop such plans and include them in the permit.

32. **Public Notice.** At the time that the application is submitted, place a **Class I Legal Advertisement** in a newspaper of general circulation in the area where the source is or will be located (See 45CSR§13-8.3 through 45CSR§13-8.5 and **Example Legal Advertisement** for details). Please submit the **Affidavit of Publication** as **Attachment P** immediately upon receipt.

33. **Business Confidentiality Claims.** Does this application include confidential information (per 45CSR31)?
 YES NO
 ➤ If **YES**, identify each segment of information on each page that is submitted as confidential and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's "**Precautionary Notice – Claims of Confidentiality**" guidance found in the **General Instructions** as **Attachment Q**.

Section III. Certification of Information

34. **Authority/Delegation of Authority.** Only required when someone other than the responsible official signs the application. Check applicable **Authority Form** below:

<input type="checkbox"/> Authority of Corporation or Other Business Entity	<input type="checkbox"/> Authority of Partnership
<input type="checkbox"/> Authority of Governmental Agency	<input type="checkbox"/> Authority of Limited Partnership

Submit completed and signed **Authority Form** as **Attachment R**.

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

35A. **Certification of Information.** To certify this permit application, a Responsible Official (per 45CSR§13-2.22 and 45CSR§30-2.28) or Authorized Representative shall check the appropriate box and sign below.

Certification of Truth, Accuracy, and Completeness

I, the undersigned **Responsible Official** / **Authorized Representative**, hereby certify that all information contained in this application and any supporting documents appended hereto, is true, accurate, and complete based on information and belief after reasonable inquiry I further agree to assume responsibility for the construction, modification and/or relocation and operation of the stationary source described herein in accordance with this application and any amendments thereto, as well as the Department of Environmental Protection, Division of Air Quality permit issued in accordance with this application, along with all applicable rules and regulations of the West Virginia Division of Air Quality and W.Va. Code § 22-5-1 et seq. (State Air Pollution Control Act). If the business or agency changes its Responsible Official or Authorized Representative, the Director of the Division of Air Quality will be notified in writing within 30 days of the official change.

Compliance Certification

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

SIGNATURE <u>Jan M. Barnes</u> <i>(Please use blue ink)</i>		DATE: <u>8/18/16</u> <i>(Please use blue ink)</i>
35B. Printed name of signee: Ms. Jan M. Barnes		35C. Title: Director, HSE&Q
35D. E-mail: jbarnes@transflo.net	36E. Phone: (904) 359-1323	36F. FAX: (904) 245-2257
36A. Printed name of contact person (if different from above): Ms. Becky Heilman		36B. Title: Project Manager
36C. E-mail: bheilman@transflo.net	36D. Phone: (904) 359-1337	36E. FAX: (904) 245-2228

PLEASE CHECK ALL APPLICABLE ATTACHMENTS INCLUDED WITH THIS PERMIT APPLICATION:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Attachment A: Business Certificate | <input checked="" type="checkbox"/> Attachment K: Fugitive Emissions Data Summary Sheet |
| <input checked="" type="checkbox"/> Attachment B: Map(s) | <input checked="" type="checkbox"/> Attachment L: Emissions Unit Data Sheet(s) |
| <input checked="" type="checkbox"/> Attachment C: Installation and Start Up Schedule | <input checked="" type="checkbox"/> Attachment M: Air Pollution Control Device Sheet(s) |
| <input checked="" type="checkbox"/> Attachment D: Regulatory Discussion | <input checked="" type="checkbox"/> Attachment N: Supporting Emissions Calculations |
| <input checked="" type="checkbox"/> Attachment E: Plot Plan | <input checked="" type="checkbox"/> Attachment O: Monitoring/Recordkeeping/Reporting/Testing Plans |
| <input checked="" type="checkbox"/> Attachment F: Detailed Process Flow Diagram(s) | <input checked="" type="checkbox"/> Attachment P: Public Notice |
| <input checked="" type="checkbox"/> Attachment G: Process Description | <input type="checkbox"/> Attachment Q: Business Confidential Claims |
| <input checked="" type="checkbox"/> Attachment H: Material Safety Data Sheets (MSDS) | <input type="checkbox"/> Attachment R: Authority Forms |
| <input checked="" type="checkbox"/> Attachment I: Emission Units Table | <input type="checkbox"/> Attachment S: Title V Permit Revision Information |
| <input checked="" type="checkbox"/> Attachment J: Emission Points Data Summary Sheet | <input checked="" type="checkbox"/> Application Fee |

Please mail an original and three (3) copies of the complete permit application with the signature(s) to the DAQ, Permitting Section, at the address listed on the first page of this application. Please DO NOT fax permit applications.

FOR AGENCY USE ONLY – IF THIS IS A TITLE V SOURCE:

- Forward 1 copy of the application to the Title V Permitting Group and:
- For Title V Administrative Amendments:
 - NSR permit writer should notify Title V permit writer of draft permit,
- For Title V Minor Modifications:
 - Title V permit writer should send appropriate notification to EPA and affected states within 5 days of receipt,
 - NSR permit writer should notify Title V permit writer of draft permit.
- For Title V Significant Modifications processed in parallel with NSR Permit revision:
 - NSR permit writer should notify a Title V permit writer of draft permit,
 - Public notice should reference both 45CSR13 and Title V permits,
 - EPA has 45 day review period of a draft permit.

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

Attachment A – Business Certificate

West Virginia Secretary of State's Office
Business and Licensing Division
P.O. Box 40300
Charleston, WV 25364



Natalie E. Tennant
West Virginia Secretary of State
January 1, 2010

PIN: Q1311930

TRANSFLO TERMINAL SERVICES, INC.
6735 SOUTH POINT DRIVE
JACKSONVILLE, FL 32216

Business Owner:

Enclosed is the 2011 Annual Report for Corporations, Limited Partnerships, Voluntary Associations and/or Business Trusts.

We are requesting and encouraging you to file the annual report online through "Business for West Virginia" at www.business4wv.com. Next year online filing of annual reports may be mandatory. Filing online is available 24/7, it saves time, is a secure process, you can pay by credit card and receive an e-mail confirmation of your filing. When filing online you will need to have your PIN (personal identification number) that is located at the top of this letter as well as at the top left section on the enclosed report.

Never filed online and need assistance? Check out our website for dates, times, and places when representatives from our office will be in your area to assist those wanting to file online.

If you absolutely cannot file online, for this year, you may complete the annual report that is enclosed and return it along with the payment coupon and a check for \$25 to the address listed on the payment coupon by close of business on June 30, 2010.

Companies that do not file their annual reports by the close of business on June 30, 2010 will be assessed a mandatory \$100 (one hundred dollar) late penalty fee, required by West Virginia Code and are at risk of being administratively dissolved or revoked.

If you feel that you have received this letter in error or have any questions concerning the information in this correspondence, please contact our office toll free at 1-877-826-2954 or 1-866-767-8683.

Sincerely,
Penney Barker, Manager - Business and Licensing Division

Tear here*****

PAYMENT COUPON

Make the \$25 check payable to the West Virginia Secretary of State's Office. Mail the check, payment coupon and annual report by the close of business on June 30, 2010 to address listed below or file online at: www.business4wv.com

Organization #	Due Date (by close of business)	Amount Due	\$100 Penalty due after	Check #	Amt. Enclosed
161990	June 30, 2010	25.00	June 30, 2010		

West Virginia Secretary of State's Office
Business and Licensing Division
P. O. Box 40300
Charleston, WV 25364

TRANSFLO TERMINAL SERVICES, INC.
6735 SOUTH POINT DRIVE
JACKSONVILLE, FL 32216

001619902011002500

Annual Report for
Corporations, Limited Partnerships, Voluntary Associations, and/or Business Trusts
DUE DATE: By the Close of Business June 30, 2010
Save time and file online at www.business4wv.com



PIN: Q1311930

Companies that do not file their annual reports by the close of business on June 30, 2010 will be assessed a mandatory \$100 (one hundred dollar late penalty fee and are at risk of being administratively dissolved or revoked. Complete each section.

1. **Name of Organization:** TRANSFLO TERMINAL SERVICES, INC.

2. **Incorporation or or Qualification date:** 12/11/1995 **In which State:** DE

3. **Tax ID #:** 593165558001 **County Code:** 0 **Business Class Code:** _____

To view a list of County Codes they are available at: <http://www.wvsos.com/business/helpfiles/fieldcodes.htm>
 To view a list of Business Class Codes they are available at: http://www.state.wv.us/taxrev/uploads/2006_NAICS.pdf

4. **Principal Office Address:** 6735 SOUTH POINT DRIVE

(if different, please make appropriate changes) JACKSONVILLE, FL 32216

5. **Principal Mailing Address:** _____

(if different, please make appropriate changes) _____

6. **Name and mailing address of the person to whom notice of process may be sent:** CORPORATION SERVICE COMPANY

(if different, please make appropriate changes) 209 WEST WASHINIGTON STREET

CHARLESTON, WV 25302

*If new agent furnish new agent's signature _____

7. **Business e-mail address to whom correspondence may be sent, if any, is:** _____

8. **List names and addresses of the entity's parent company, if any. Attach list if more space is needed.**

P	S	Organization Name	Mailing Address
<input type="checkbox"/>	<input type="checkbox"/>	_____	_____

P	S	Organization Name	Mailing Address
<input type="checkbox"/>	<input type="checkbox"/>	_____	_____

9. **Officer/Partner/Member Information:** List the name and address of each officer/partner/member having authority to sign filings (attach additional pages if necessary):

Name	Mailing Address
<u>President GLEN A. SOLIAH</u>	<u>6735 SOUTH POINT DRIVE JACKSONVILLE, FL 32202</u>
<u>Vice-President</u>	_____
<u>Secretary MARK D. AUSTIN</u>	<u>500 WATER ST. JACKSONVILLE, FL 32202</u>
<u>Treasurer CAROLYN T. SIZEMORE</u>	<u>500 WATER ST 500 WATER ST JACKSONVILLE, FL 32202</u>
<u>Director DERRICK W. SMITH</u>	<u>500 WATER STREET 500 WATER STREET JACKSONVILLE, FL 32202</u>
<u>Director GLEN A. SOLIAH & 1 OTHER</u>	<u>6735 SOUTHPOINE DRIVE, S 6735 SOUTHPOINE DRIVE, S JACKSONVII</u>

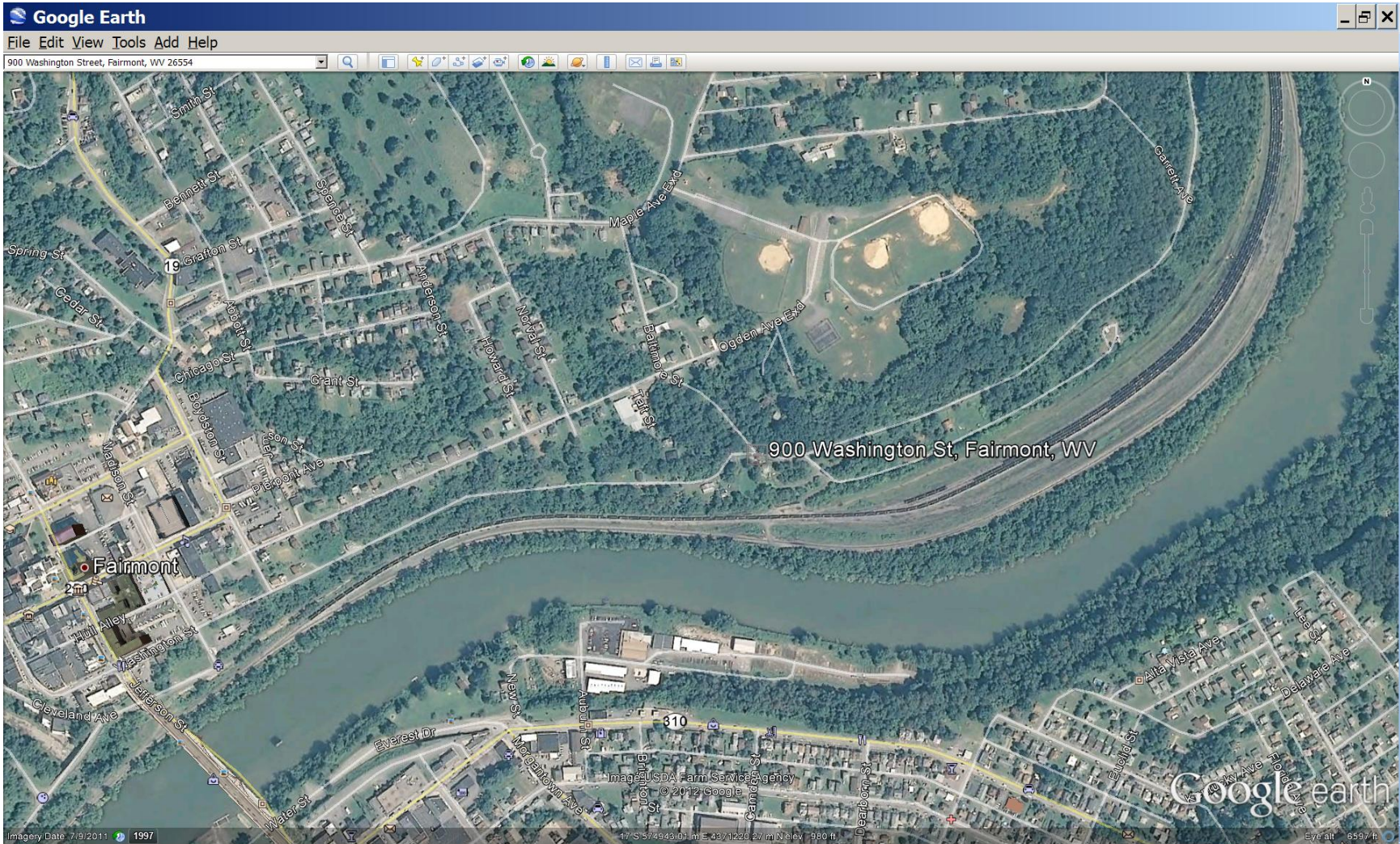
10. **Report must be signed in the name of the company by a: (1) officer of a corporation, (2) general partner of a limited partnership, (3) member or officer of a voluntary association or business trust**

Signature: _____ Date Signed: _____

Title/Capacity of Person Signing: _____ Telephone #: _____

Attachment B – Area Map

TRANSFLO Fairmont, West Virginia Area Map



Attachment C – Installation and Start Up Schedule

Project Schedule

This permit application is provided after the installation and initial operation of the ammonium nitrate conveyor on May 31, 2016. TRANSFLO has worked with the WV DEP since this installation to determine the permitting requirements, and obtain an administrative permit amendment.

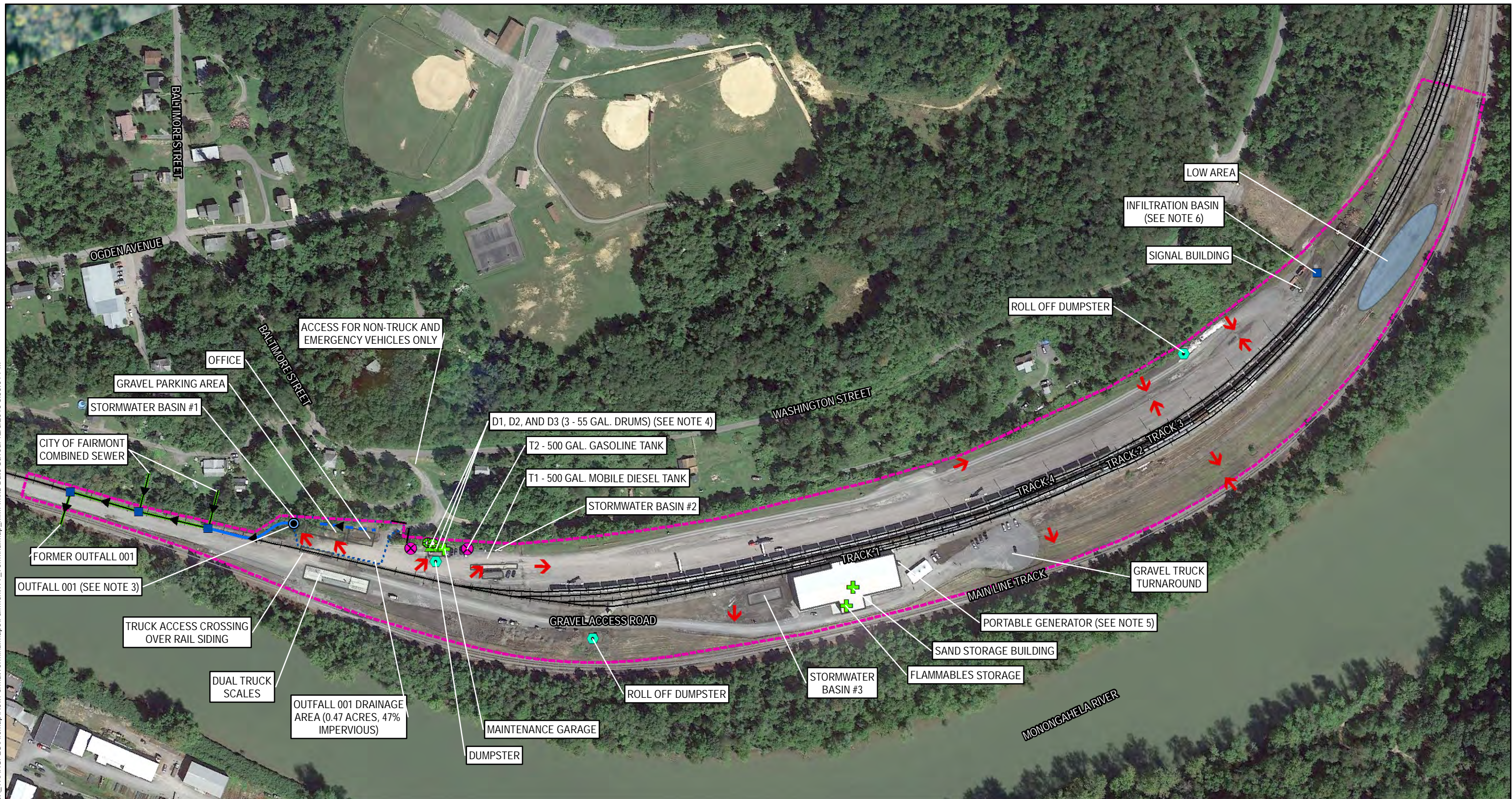
Attachment D – Regulatory Discussion

Regulatory Discussion

Please refer to the Regulatory Applicability section of the cover letter for the regulatory discussion.

Attachment E – Plot Plan

CITY: DEN-TECH DIV: GROUP: ENV/GIS DB: DHOLMES LD: PIC: PM: TM: PROJECT: PATH: Z:\GIS\PROJECTS_ENV\CSX_TRANSFLO\ArcMap\NewFormat\TerminalMap\TerminalMap_VV_TerminalMap_MMF.mxd Date Saved: 12/3/2015 3:56:01 PM



Legend

- Waste Staging Area
- Material Storage / Handling Area
- Storage Tank
- Drum Storage Area
- Runoff Flow Direction
- Outfall Location
- Sanitary Sewer Manhole
- Stormwater Catch Basin
- Entrance or Exit to Terminal
- Non-Terminal Tracks
- Terminal Tracks
- French Drain
- Storm Sewer Flow Direction
- Combined Sewer Line
- Approximate Drainage Area
- Approximate Terminal Area
- Approximate Low Area

0 300 600
SCALE IN FEET

Figure Notes:

1. AERIAL IMAGE ADOPTED FROM GOOGLE EARTH PRO, DATED 09/05/2013; ACCESSED 11/6/2014.
2. SITE FEATURE LOCATIONS ARE BASED ON A SITE PLAN BY ARCADIS, FACILITY SITE PLAN, DATED 2014; SITE VISITS DATED DECEMBER 2013 AND MARCH 2015; AND DIGITIZED FROM THE AERIAL IMAGE.
3. OUTFALL 001 SAMPLING SHALL BE CONDUCTED AT THE OUTLET OF THE STORMWATER BASIN.
4. THE DRUM STORAGE AREAS D1, D2, AND D3 CONTAIN 55 GALLONS OF USED OIL, OIL, AND HYDRAULIC FLUID, RESPECTIVELY, INSIDE THE MAINTENANCE BUILDING.
5. THE PORTABLE GENERATOR CONTAINS APPROXIMATELY 80 GALLONS OF DIESEL FUEL.
6. INFILTRATION BASIN HAS NO OUTLET PIPES AND ONLY CAPTURES RUNOFF FROM THE ADJACENT AREA. RUNOFF ENTERING THE BASIN INFILTRATES INTO THE SOIL.
7. TOTAL TERMINAL AREA IS 23.8 ACRES. IMPERVIOUS AREA (BUILDINGS AND PAVED SURFACES) IS 0.8 ACRES. COMBINED PERVIOUS AREA IS MADE UP OF GRAVEL ACCESS ROADS AND GRAVEL SURFACES (11.2 ACRES), TRACK BALLAST (4.0 ACRES), AND VEGETATED/UNDEVELOPED AREAS (7.8 ACRES).

TRANSFLO Terminal Services

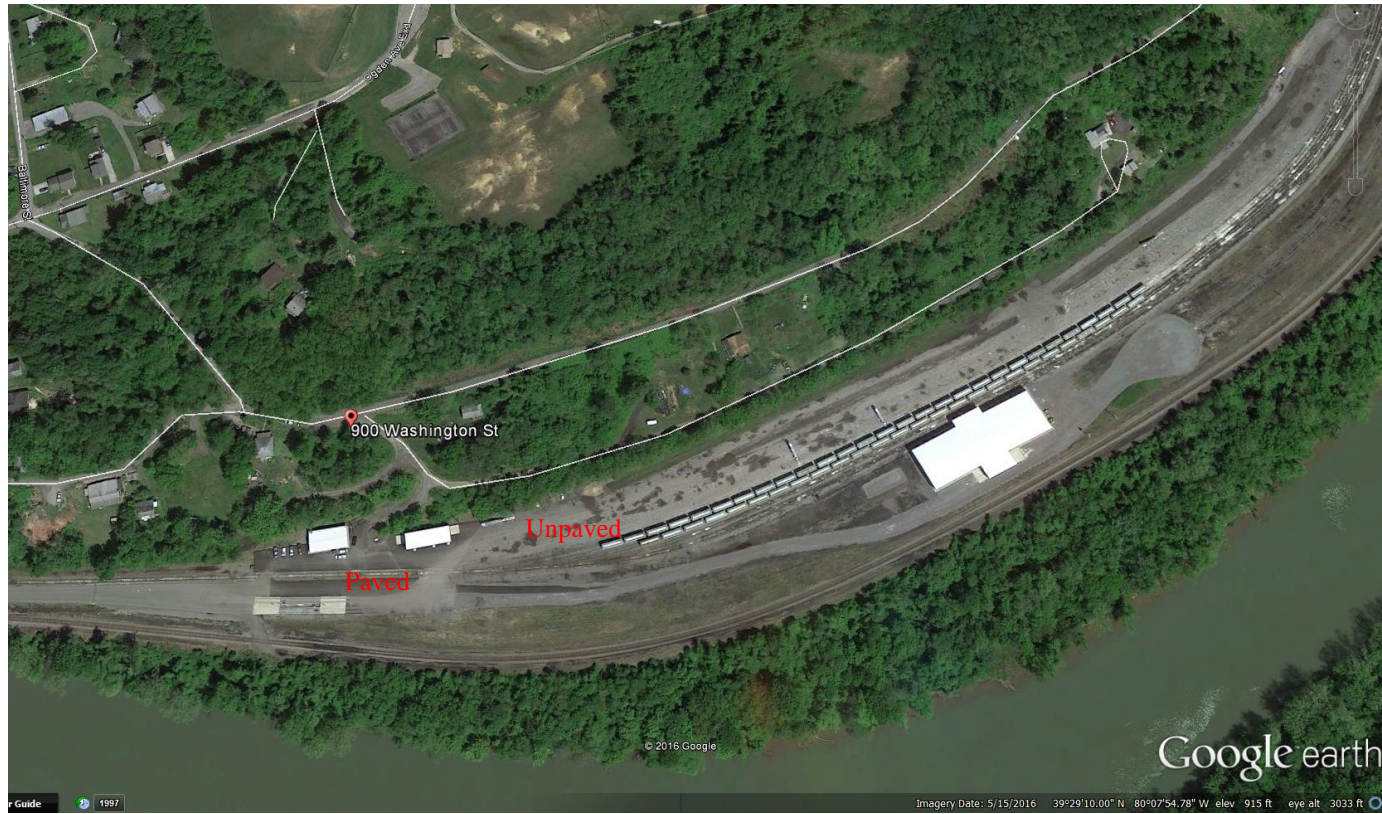
TRANSFLO SITE PLAN
100 Cleveland Avenue
Fairmont, West Virginia 26554
(410) 336-8550

Prepared by: **ARCADIS**

FIGURE **2**

TRANSFLO – Fairmont West Virginia

Site Layout / Plot Plan Additional Information



Attachment F – Process Flow Diagram



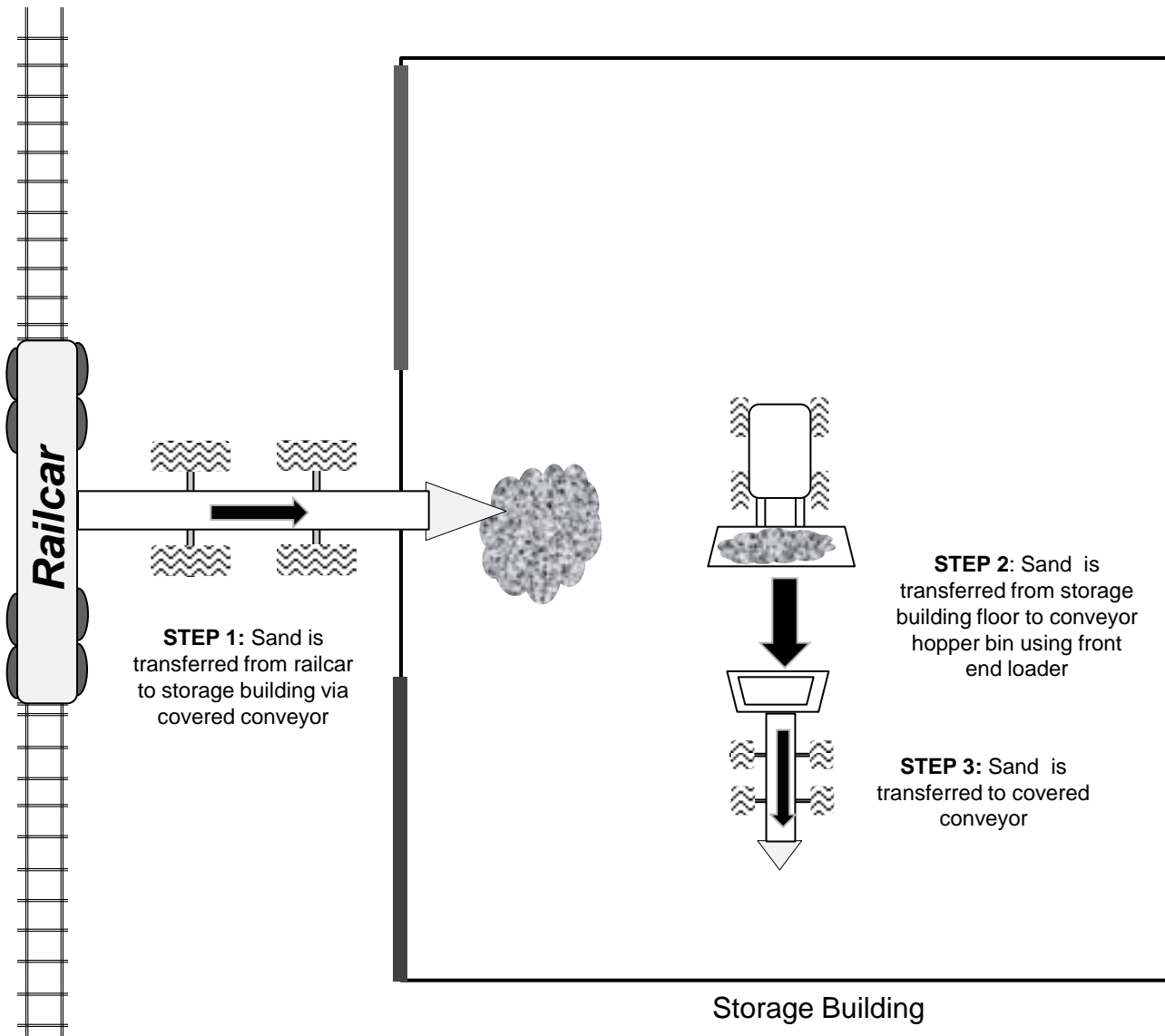
TITLE: **Process Flow Diagram 5: Conveyor Solid Transfer – Railcar to Truck**

CLIENT: **TRANSFLO Terminal Services, Inc.**

DATE: **12/26/2012**

REV: **---1---**

Mitchell J. Hait, Ph.D., P.E., Inc.
 904/494-4200 (office)
 904/392-5771 (cellular)
 Haitinc@gmail.com



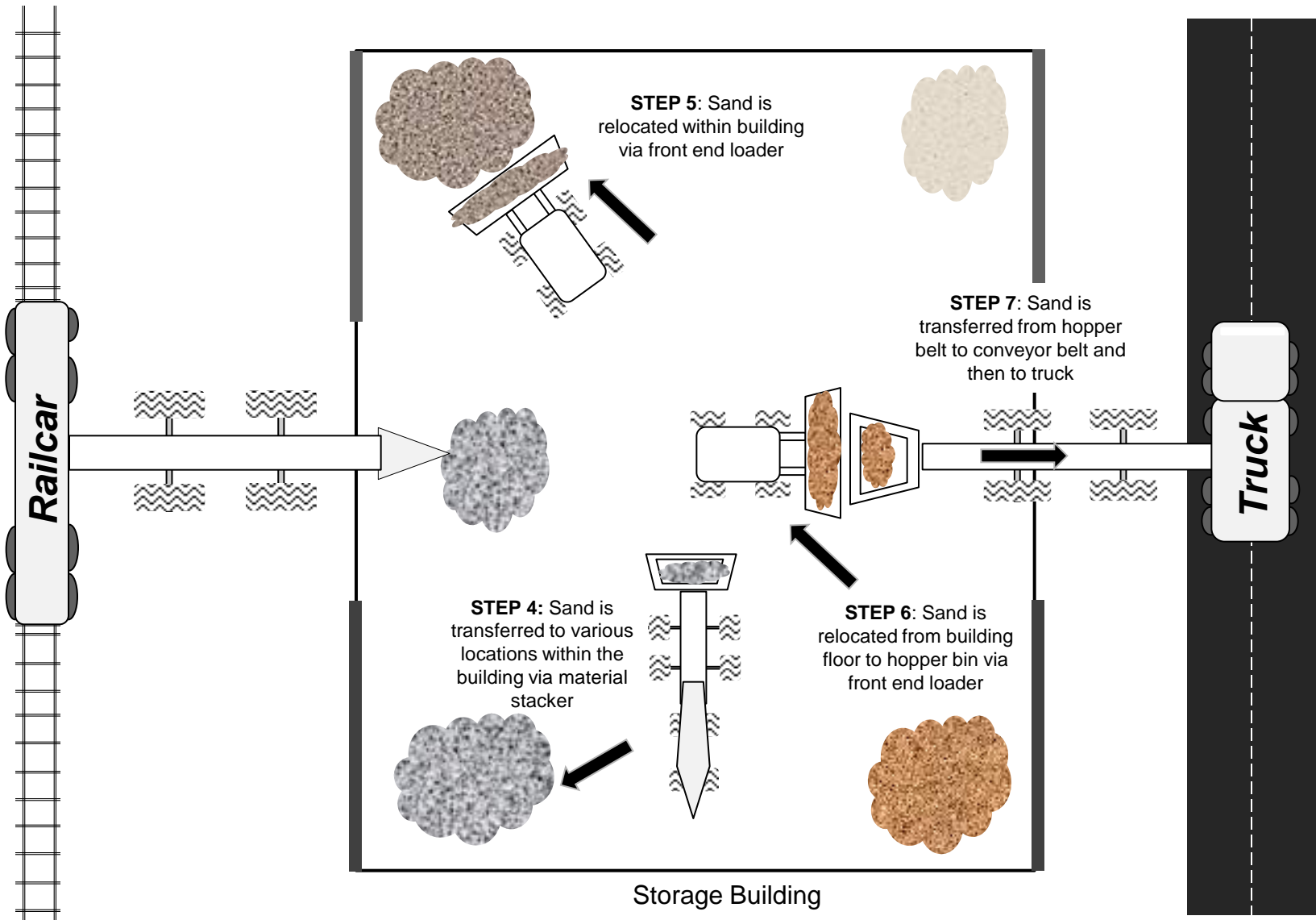
TITLE: Process Flow Diagram – Interim Storage Process Steps 1-3

CLIENT: TRANSFLO Terminal Services, Inc.

DATE: 07/07/12

REV: ---1---

Mitchell J. Hait, Ph.D., P.E., Inc.
 904/494-4200 (office)
 904/392-5771 (cellular)
Haitinc@gmail.com



TITLE: **Process Flow Diagram – Interim Storage Process Steps 4-7**

CLIENT: **TRANSFLO Terminal Services, Inc.**

DATE: **07/07/12**

REV: **---1---**

Mitchell J. Hait, Ph.D., P.E., Inc.
 904/494-4200 (office)
 904/392-5771 (cellular)
Haitinc@gmail.com

Attachment G – Process Description

Process Description

Please refer to the Process Description section of the cover letter.

Attachment H – MSDS

Ammonium Nitrate



Material Safety Data Sheet

Orica Canada Inc.
Maple Street
Brownsburg, PQ
 For MSDS Requests: 450-533-4201

Orica USA Inc.
33101 E. Quincy Avenue
Watkins, CO 80137
 For MSDS Requests: 303-268-5000

EMERGENCY CONTACTS
 FOR EMERGENCIES INVOLVING CHEMICAL SPILL OR RELEASE, CALL THE ORICA CANADA
 TRANSPORTATION
EMERGENCY RESPONSE SYSTEM AT 1-877-561-3636, or CHEMTREC AT 1-800-424-9300

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Ammonium Nitrate Prills

MSDS Number: 40002
Date Issued: 14-May-2004

Product Use: Fertilizer, manufacture of explosives.

SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT(S)	% (w/w)	ACGIH TWA	CAS NO.
Ammonium Nitrate	99-100	Not Listed	6484-52-2

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview: Irritating to eyes, respiratory system and skin. May cause methemoglobinemia. Read the entire MSDS for a more thorough evaluation of the hazards.

SECTION 4 - FIRST AID MEASURES

General: If you feel unwell seek medical advice immediately (show the product label where possible).
Inhalation: Move victim to fresh air. Give artificial respiration ONLY if breathing has stopped. Give cardiopulmonary resuscitation (CPR) if there is no breathing AND no pulse. Oxygen administration may be beneficial in this situation but should only be administered by personnel trained in its use. Obtain medical attention IMMEDIATELY.

Skin Contact: Wash affected areas thoroughly with soap and water. If irritation, redness, or a burning sensation develops and persists, obtain medical advice.

Eye Contact: Immediately flush eyes with running water for a minimum of 20 minutes. Hold eyelids open during flushing. If irritation persists, repeat flushing and obtain medical attention.

Ingestion: If victim is alert and not convulsing, rinse mouth out and give 200-300 mL (1 cup) of water to dilute material. DO NOT induce vomiting. If spontaneous vomiting occurs, have victim lean forward with head positioned to avoid breathing in of vomitus, rinse mouth and administer more water. Obtain medical attention IMMEDIATELY.

Note to Physicians: Symptomatic. Administer oxygen if there are signs of cyanosis. If clinical condition deteriorates, administer 10 cc Methylene Blue intravenously. It is unlikely for this to be required with methemoglobin level of less than 40%.

SECTION 5 - FIRE-FIGHTING MEASURES

Flash Point: This product does not flash.

Flammable Limits (Lower): Not applicable.

Flammable Limits (Upper): Not applicable.

Auto Ignition Temperature: Not applicable.

Decomposition Temperature: 170-260°C (338-500°F)

Sensitivity to Mechanical Impact: Not applicable.

Sensitivity to Static Discharge: Not expected to be sensitive to static discharge.

Hazardous Reactions: See 'Fire and Explosion Hazards'.

Fire and Explosion Hazards: Attempts to smother a fire involving this product will be ineffective as it is its own oxygen source.

Smothering could lead to decomposition and explosions. This product is more sensitive if contaminated with organics or oxidizable material or if heated while confined. Unless the mass of product on fire is flooded with water, re-ignition is possible.

Extinguishing Media: Use water only, in as much volume as possible in order to cool the burning mass quickly. Chemical extinguishers are useless for this type of fire.

Fire Fighting Procedures: Large quantities of water should be used to cool containers, and cool and dilute the burning material. A water spray can also be used to knock down fumes.

Fire Fighting Protective Equipment: Use self-contained breathing apparatus and special protective clothing.

NOTE: Also see "Section 10 - Stability and Reactivity"

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Spills, Leaks, or Releases: Collect product for disposal. Sweep up immediately to eliminate slipping hazard. Do not allow to enter sewers or watercourses. Notify applicable government authority.

Deactivating Chemicals: Not required.

SECTION 7 - HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Wash contaminated clothing thoroughly before re-use. Use only with adequate ventilation and avoid breathing dusts. Locate safety shower and eyewash station close to chemical handling area. Product is mildly corrosive to concrete and steel structures. Stainless steels and aluminum are adequate. Avoid materials made of copper and bronze in storage and handling equipment.

Storage Requirements: Store in a cool, well-ventilated area. Keep away from heat, sparks and flames. Keep containers closed.

Storage Temperature: Ideal storage temperature is 10-27°C (50-80°F). Do not expose sealed containers to temperatures above 40°C (104°F).

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

PREVENTIVE MEASURES:

Recommendations listed in this section indicate the type of equipment which will provide protection against over-exposure to this product. Conditions of use, adequacy of engineering or other control measures, and actual exposures will dictate the need for specific protective devices at your workplace.

Engineering Controls: General ventilation is recommended. Recommendations listed in this section indicate the type of equipment which will provide protection against over exposure to this product.

PERSONAL PROTECTIVE EQUIPMENT:

Eye Protection: Use chemical safety goggles when there is potential for eye contact.

Skin Protection: Gloves and protective clothing made from cotton should be impervious under normal conditions of use.

Respiratory Protection: A NIOSH/MSHA-approved dust respirator, if concentrations in air are unknown or in excess of established exposure guidelines.

EXPOSURE GUIDELINES:

PRODUCT:

Ammonium Nitrate Prills:

Orica Guideline 5 mg/m3 internal TWA

HAZARDOUS INGREDIENT(S):

Ammonium Nitrate:

Orica Guideline 5 mg/m3 internal TWA

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Alternate Name(s): AN

Chemical Name: Nitric Acid Ammonium Salt

Chemical Family: Nitrate.

Molecular Formula: NH₄NO₃

Appearance: Free-flowing, hygroscopic, grey-white colored prills.

Odor: Odorless.

pH: 5.0 - 6.0 (0.1M solution in water)

Vapor Pressure (mm Hg at 20°C): 0

Vapor Density (Air=1): Not applicable.

Boiling Point: 210°C (410°F)
Melting Point: 160 to 165°C (320 to 329°F)
Freezing Point: 160 to 165°C (320 to 329°F)
Solubility (Water): 79% @ 25°C (77°F)
Solubility (Other): Soluble in alkalis, alcohols, acetone. Insoluble in ether.
Specific Gravity: 1.725
Evaporation Rate: Not applicable.
% Volatile by Volume: 0 %
% Volatile Organic Compounds: 0 %
Molecular Weight: 80.06
Additional Properties: Total Nitrogen: 34-34.5%

SECTION 10 - STABILITY AND REACTIVITY

Hazardous Decomposition Products: Toxic gases and vapours (oxides of nitrogen) will be released by thermal decomposition (about 210°C). At higher temperatures, decomposition may be explosive, especially if confined.

Chemical Stability: Stable at room temperature.

Conditions to Avoid: High temperatures, sparks, open flames and all other sources of ignition. Keep away from combustible material. Protect from light.

Incompatibility with other Substances: Avoid oxidizable materials, metal powder, bronze & other copper alloys, fuels (e.g. lubricants, machine oils), fluorocarbon lubricants, acids, corrosive liquids, chlorates, sulphur, sodium nitrite, charcoal, coke and other finely divided combustibles. Reducing agents.

Hazardous Polymerization: Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Summary: May cause irritation. May cause methemoglobinemia.

TOXICOLOGICAL DATA:

PRODUCT:

None established for product.

INGREDIENTS:

Ammonium Nitrate:

Oral LD50 (rat) = 2217 mg/kg

Dermal LD50 (rabbit) = 3000 mg/kg

POTENTIAL HEALTH EFFECTS:

Inhalation: High concentrations of product are irritating to the respiratory tract.

Skin Contact: Repeated and/or prolonged contact may cause dermatitis.

Eye Contact: Moderate irritant causing moderate initial pain.

Ingestion: Highly unlikely under normal industrial use. Ingestion may cause irritation of the gastrointestinal tract.

Subchronic Effects: Ingestion may cause methemoglobinemia. Initial manifestation of methemoglobinemia is cyanosis, characterized by navy blue lips, tongue and mucous membranes, with skin colour being slate grey. Further manifestation is characterized by headache, weakness, dyspnea, dizziness, stupor, respiratory distress and death due to anoxia. If ingested, nitrates may be reduced to nitrites by bacteria in the digestive tract. Signs and symptoms of nitrite poisoning include methemoglobinemia, nausea, dizziness, increased heart rate, hypotension, fainting and, possibly, shock.

Chronic Effects: None known.

Carcinogenicity: The ingredient(s) of this product is (are) NOT classified as carcinogenic by ACGIH (American Conference of Governmental Industrial Hygienists) or IARC (International Agency for Research on Cancer), NOT regulated as carcinogens by OSHA (Occupational Safety and Health Administration), and NOT listed as carcinogens by NTP (National Toxicology Program).

Mutagenicity: There is no evidence of mutagenic potential.

Reproductive Effects: No information is available and no adverse reproductive effects are anticipated.

Teratogenicity and Fetotoxicity: No information is available and no adverse teratogenic/embryotoxic effects are anticipated.

Synergistic Materials: None known.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicological Information: Harmful to aquatic life at low concentrations. Toxic to aquatic life.

Environmental Effects: Can be dangerous if allowed to enter drinking water intakes. Do not contaminate domestic or irrigation water supplies, lakes, streams, ponds, or rivers.

SECTION 13 - DISPOSAL CONSIDERATIONS

Dispose of waste material at an approved landfill site in accordance with applicable local, provincial and federal regulations. Do not dispose of waste with normal garbage, or to sewer systems.

SECTION 14 - TRANSPORT INFORMATION

Proper Shipping Name: Ammonium Nitrate or Ammonium nitrate fertilizers

Class/Division: 5.1

Product Identification Number (PIN): UN1942 or 2067, respectively

Packing Group: III

Transportation Emergency Telephone Number: 1-800-424-9300 (USA) or 1-877-561-3636 (CAN)

SECTION 15 - REGULATORY INFORMATION**CANADIAN CLASSIFICATION:**

This product has been classified in accordance with the hazard criteria of the CPR (Controlled Products Regulations) and this MSDS (Material Safety Data Sheet) contains all the information required by the CPR. **Controlled Products Regulations (CPR) Classification:** C: Oxidizer, D-2B: Toxic.

CEPA / Canadian Domestic Substances List (DSL): The substance(s) in this product is/are on the Canadian Domestic Substances List (CEPA DSL).

IARC Classification: None of the components of this product are listed on IARC.

USA CLASSIFICATION:

OSHA Classification:

Physical: Oxidizer.

Health: Irritant.

Target Organ: Eye, Skin, Respiratory tract, Blood/hematopoietic system.

SARA Regulations Sections 313 and 40 CFR 372: This product contains the following toxic chemical(s) subject to reporting requirements: 100% Ammonium Nitrate (6484-52-2)

Ozone Protection and 40 CFR 42: This product does not contain nor is it manufactured with ozone depleting substances.

Other Regulations/Legislation which apply to this product: Florida, New Jersey Special Health Hazard Substance List, New Jersey RTK Environmental Hazardous Substance, Rhode Island Hazardous Substance List, Massachusetts Right-to-Know, Pennsylvania Right-to-Know, New Jersey Right-to-Know.

SECTION 16 - OTHER INFORMATION**REFERENCES:**

RTECS-Registry of Toxic Effects of Chemical Substances, CCINFO Online, Canadian Centre for Occupational Health and Safety, National Institute for Occupational Safety and Health, U.S. Dept. of Health & Human Services, Cincinnati. Supplier's Material Safety Data Sheets.

"CHEMINFO", through "CCINFO Online", Canadian Centre for Occupational Health and Safety, Hamilton, Ontario, Canada. Sax, N. Irving, Dangerous Properties of Industrial Materials, 7th ed., Van Nostrand Reinhold Co., New York, 1989.

Threshold Limit Values and Biological Exposure Indices for 2001, American Conference of Governmental Industrial Hygienists, Cincinnati, 1997.

Wincholt, Martha, Ed., The Merck Index, 11th ed., Merck and Co., Inc., Rahway, New Jersey, 1989.

Prepared by: Safety, Health and Environment (363) 268-6000

The information contained herein is offered only as a guide to the handling of this specific material and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive and the manner and conditions of use and handling may involve other and additional considerations. No warranty of any kind is given or implied and Orica will not be liable for any damages, losses, injuries or consequential damages which may result from the use of or reliance on any information contained herein.

Attachment I – Emission Units Table

Attachment I
Emission Units Table
(includes all emission units and air pollution control devices
that will be part of this permit application review, regardless of permitting status)

Emission Unit ID ¹	Emission Point ID ²	Emission Unit Description	Year Installed/ Modified	Design Capacity	Type ³ and Date of Change	Control Device ⁴
EU01		Direct Transfer of Frac Sand	2012	600 ton/hr	Modification 2012	BH01 - 04
EU01	XFER01	Railcar to conveyor transfer	2012	600 ton/hr	Modification 2012	BH01 - 04
EU01	XFER02	Conveyor to truck transfer	2012	600 ton/hr	Modification 2012	BH01 - 04
EU01	RET01	Conveyor return	2012	60 lb/hr	Modification 2012	n/a
EU01	BHEX01	Baghouse	2012	2,400 cfm	Modification 2012	BH01 - 04
EU02		Frac Sand Transfer w/ Storage	2012	450 ton/hr	New 2012	BH11-19
EU02	XFER11	Railcar to conveyor transfer	2012	450 ton/hr	New 2012	BH11-13
EU02	XFER12	Conveyor to ground transfer	2012	450 ton/hr	New 2012	BH11-13
EU02	RET11	Conveyor return	2012	45 lb/hr	New 2012	n/a
EU02	BHEX11	Baghouse	2012	1,800 cfm	New 2012	BH11-13
EU02	XFER13	Ground to front end loader (FEL)	2012	450 ton/hr	New 2012	n/a
EU02	XFER14	Front end loader to hopper bin	2012	450 ton/hr	New 2012	n/a
EU02	XFER15	Hopper bin to conveyor	2012	450 ton/hr	New 2012	BH14-16
EU02	XFER16	Conveyor to stacker	2012	450 ton/hr	New 2012	BH14-16
EU02	RET12	Conveyor return	2012	45 lb/hr	New 2012	n/a
EU02	XFER17	Stacker to product bin	2012	450 ton/hr	New 2012	n/a
EU02	XFER18	Bin to front end loader (moving)	2012	450 ton/hr	New 2012	n/a
EU02	XFER19	Front end loader to new bin	2012	450 ton/hr	New 2012	n/a
EU02	XFER20	Bin to FEL	2012	450 ton/hr	New 2012	n/a
EU02	XFER21	FEL to hopper	2012	450 ton/hr	New 2012	n/a
EU02	XFER22	Hopper to conveyor	2012	450 ton/hr	New 2012	BH17-19
EU02	XFER23	Conveyor to truck	2012	450 ton/hr	New 2012	BH17-19
EU02	RET13	Conveyor return	2012	450 ton/hr	New 2012	n/a

¹ For Emission Units (or Sources) use the following numbering system: 1S, 2S, 3S,... or other appropriate designation.

² For Emission Points use the following numbering system: 1E, 2E, 3E, ... or other appropriate designation.

³ New, modification, removal

⁴ For Control Devices use the following numbering system: 1C, 2C, 3C,... or other appropriate designation.

Attachment I
Emission Units Table
(includes all emission units and air pollution control devices
that will be part of this permit application review, regardless of permitting status)

Emission Unit ID ¹	Emission Point ID ²	Emission Unit Description	Year Installed/ Modified	Design Capacity	Type ³ and Date of Change	Control Device ⁴
EU03		Direct Transfer of Other Materials	2012	50 ton/hr	Modification 2012	BH31
EU03	XFER31	Railcar to conveyor transfer	2012	50 ton/hr	Modification 2012	BH31
EU03	XFER32	Conveyor to truck transfer	2012	50 ton/hr	Modification 2012	BH31
EU03	RET31	Conveyor return	2012	15 lb/hr	Modification 2012	n/a
EU03	BHEX31	Baghouse	2012	600 cfm	Modification 2012	BH31
EU04		Direct Transfer Ammonium Nitrate	2016	50 ton/hr	New 2016	BH41
EU04	XFER41	Railcar to conveyor transfer	2016	50 ton/hr	New 2016	BH41
EU04	XFER42	Conveyor to truck transfer	2016	50 ton/hr	New 2016	BH41
EU04	RET41	Conveyor return	2016	15 lb/hr	New 2016	n/a
EU04	BHEX41	Baghouse	2016	600 cfm	New 2016	BH41

¹ For Emission Units (or Sources) use the following numbering system: 1S, 2S, 3S,... or other appropriate designation.
² For Emission Points use the following numbering system: 1E, 2E, 3E, ... or other appropriate designation.
³ New, modification, removal
⁴ For Control Devices use the following numbering system: 1C, 2C, 3C,... or other appropriate designation.

**Attachment J – Emission Points Data Summary Sheet
(Tables 1 and 2)**

**Attachment J
EMISSION POINTS DATA SUMMARY SHEET**

Table 1: Emissions Data															
Emission Point ID No. (Must match Emission Units Table & Plot Plan)	Emission Point Type ¹	Emission Unit Vented Through This Point (Must match Emission Units Table & Plot Plan)		Air Pollution Control Device (Must match Emission Units Table & Plot Plan)		Vent Time for Emission Unit (chemical processes only)		All Regulated Pollutants - Chemical Name/CAS ³ (Speciate VOCs & HAPS)	Maximum Potential Uncontrolled Emissions ⁴		Maximum Potential Controlled Emissions ⁵		Emission Form or Phase (At exit conditions, Solid, Liquid or Gas/Vapor)	Est. Method Used ⁶	Emission Concentration ⁷ (ppmv or mg/m ⁴)
		ID No.	Source	ID No.	Device Type	Short Term ²	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
XFER01	Volume	EU01	Frac Sand	BH01-04	Baghouse	n/a	n/a	PM PM ₁₀ PM _{2.5}	1.80 0.66 0.19	0.35 0.13 0.04	0.084 0.028 0.008	0.0161 0.0053 0.0015	Solid	AP-42 11.19. 2-2	Not applicable
XFER02	Volume	EU01	Frac Sand	BH01-04	Baghouse	n/a	n/a	PM PM ₁₀ PM _{2.5}	1.80 0.66 0.19	0.35 0.13 0.04	0.084 0.028 0.008	0.0161 0.0053 0.0015	Solid	AP-42 11.19. 2-2	Not applicable
RET01	Volume	EU01	Frac Sand	n/a	n/a	n/a	n/a	PM PM ₁₀ PM _{2.5}	9.0e-5 3.3e-5 9.3e-6	1.7e-5 6.3e-6 1.8e-6	4.2e-6 1.4e-6 3.9-7	8.1e-7 2.6e-7 7.5e-8	Solid	AP-42 11.19. 2-2	Not applicable

The EMISSION POINTS DATA SUMMARY SHEET provides a summation of emissions by emission unit. Note that uncaptured process emission unit emissions are not typically considered to be fugitive and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET. Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions). Please complete the FUGITIVE EMISSIONS DATA SUMMARY SHEET for fugitive emission activities.

¹ Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.

² Indicate by "C" if venting is continuous. Otherwise, specify the average short-term venting rate with units, for intermittent venting (ie., 15 min/hr). Indicate as many rates as needed to clarify frequency of venting (e.g., 5 min/day, 2 days/wk).

³ List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. **LIST** Acids, CO, CS₂, VOCs, H₂S, Inorganics, Lead, Organics, O₃, NO, NO₂, SO₂, SO₃, all applicable Greenhouse Gases (including CO₂ and methane), etc. **DO NOT LIST** H₂, H₂O, N₂, O₂, and Noble Gases.

⁴ Give maximum potential emission rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

⁵ Give maximum potential emission rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

⁶ Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).

⁷ Provide for all pollutant emissions. Typically, the units of parts per million by volume (ppmv) are used. If the emission is a mineral acid (sulfuric, nitric, hydrochloric or phosphoric) use units of milligram per dry cubic meter (mg/m³) at standard conditions (68 °F and 29.92 inches Hg) (see 45CSR7). If the pollutant is SO₂, use units of ppmv (See 45CSR10).

**Attachment J
EMISSION POINTS DATA SUMMARY SHEET**

Table 2: Release Parameter Data								
Emission Point ID No. <i>(Must match Emission Units Table)</i>	Inner Diameter (ft.)	Exit Gas			Emission Point Elevation (ft)		UTM Coordinates (km)	
		Temp. (°F)	Volumetric Flow ¹ (acfm) <i>at operating conditions</i>	Velocity (fps)	Ground Level <i>(Height above mean sea level)</i>	Stack Height ² <i>(Release height of emissions above ground level)</i>	Northing	Easting
BHEX01	7" x 12" Pre 2006, 8" x 15" (2006 to present)	Ambient	600 acfm (each)	12	tbd	10 feet	Tbd	Tbd

¹ Give at operating conditions. Include inerts.
² Release height of emissions above ground level.

**Attachment J
EMISSION POINTS DATA SUMMARY SHEET**

Table 1: Emissions Data															
Emission Point ID No. (Must match Emission Units Table & Plot Plan)	Emission Point Type ¹	Emission Unit Vented Through This Point (Must match Emission Units Table & Plot Plan)		Air Pollution Control Device (Must match Emission Units Table & Plot Plan)		Vent Time for Emission Unit (chemical processes only)		All Regulated Pollutants - Chemical Name/CAS ³ (Speciate VOCs & HAPS)	Maximum Potential Uncontrolled Emissions ⁴		Maximum Potential Controlled Emissions ⁵		Emission Form or Phase (At exit conditions, Solid, Liquid or Gas/Vapor)	Est. Method Used ⁶	Emission Concentration ⁷ (ppmv or mg/m ⁴)
		ID No.	Source	ID No.	Device Type	Short Term ²	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
XFER11, XFER12, XFER15, XFER16, XFER22, XFER23	Volume	EU02	Other	BH11-16	Baghouse	n/a	n/a	PM PM ₁₀ PM _{2.5}	1.35 0.495 0.15	1.035 0.38 0.107	0.063 0.021 0.006	0.0483 0.0159 0.0045	Solid	AP-42 11.12	Not applicable
XFER13, XFER14, XFER17, XFER18, XFER19, XFER20, XFER21	Volume	EU02	Other	BH11-19	Uncontrolled	n/a	n/a	PM PM ₁₀ PM _{2.5}	1.35 0.495 0.15	0.518 0.190 0.190	0.063 0.021 0.006	0.5175 0.19 0.19	Solid	AP-42 11.12	Not applicable
RET11, RET12, RET13	Volume	EU02	Other	n/a	n/a	n/a	n/a	PM PM ₁₀ PM _{2.5}	6.9e-5 2.5e-5 6.9e-6	5.2e-5 1.9e-5 5.3e-6	6.9e-5 2.5e-5 6.9e-6	2.4e-6 7.9e-7 2.2e-7	Solid	AP-42 11.12	Not applicable

The EMISSION POINTS DATA SUMMARY SHEET provides a summation of emissions by emission unit. Note that uncaptured process emission unit emissions are not typically considered to be fugitive and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET. Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions). Please complete the FUGITIVE EMISSIONS DATA SUMMARY SHEET for fugitive emission activities.

¹ Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.

² Indicate by "C" if venting is continuous. Otherwise, specify the average short-term venting rate with units, for intermittent venting (ie., 15 min/hr). Indicate as many rates as needed to clarify frequency of venting (e.g., 5 min/day, 2 days/wk).

³ List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. **LIST** Acids, CO, CS₂, VOCs, H₂S, Inorganics, Lead, Organics, O₃, NO, NO₂, SO₂, SO₃, all applicable Greenhouse Gases (including CO₂ and methane), etc. **DO NOT LIST** H₂, H₂O, N₂, O₂, and Noble Gases.

⁴ Give maximum potential emission rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

⁵ Give maximum potential emission rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

⁶ Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).

⁷ Provide for all pollutant emissions. Typically, the units of parts per million by volume (ppmv) are used. If the emission is a mineral acid (sulfuric, nitric, hydrochloric or phosphoric) use units of milligram per dry cubic meter (mg/m³) at standard conditions (68 °F and 29.92 inches Hg) (see 45CSR7). If the pollutant is SO₂, use units of ppmv (See 45CSR10).

**Attachment J
EMISSION POINTS DATA SUMMARY SHEET**

Table 2: Release Parameter Data								
Emission Point ID No. <i>(Must match Emission Units Table)</i>	Inner Diameter (ft.)	Exit Gas			Emission Point Elevation (ft)		UTM Coordinates (km)	
		Temp. (°F)	Volumetric Flow ¹ (acfm) <i>at operating conditions</i>	Velocity (fps)	Ground Level <i>(Height above mean sea level)</i>	Stack Height ² <i>(Release height of emissions above ground level)</i>	Northing	Easting
BHEX11	7" x 12" Pre 2006, 8" x 15" (2006 to present)	Ambient	600 acfm (each)	12	tbd	10 feet	Tbd	Tbd

¹ Give at operating conditions. Include inerts.
² Release height of emissions above ground level.

Attachment J
EMISSION POINTS DATA SUMMARY SHEET

Table 1: Emissions Data															
Emission Point ID No. (Must match Emission Units Table & Plot Plan)	Emission Point Type ¹	Emission Unit Vented Through This Point (Must match Emission Units Table & Plot Plan)		Air Pollution Control Device (Must match Emission Units Table & Plot Plan)		Vent Time for Emission Unit (chemical processes only)		All Regulated Pollutants - Chemical Name/CAS ³ (Speciate VOCs & HAPS)	Maximum Potential Uncontrolled Emissions ⁴		Maximum Potential Controlled Emissions ⁵		Emission Form or Phase (At exit conditions, Solid, Liquid or Gas/Vapor)	Est. Method Used ⁶	Emission Concentration ⁷ (ppmv or mg/m ⁴)
		ID No.	Source	ID No.	Device Type	Short Term ²	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
XFER31	Volume	EU03	Other	BH31	Baghouse	n/a	n/a	PM	49.75	28.6	2.84	1.634	Solid	AP-42 11.12	Not applicable
								PM ₁₀	13.90	8.0	0.80	0.46			
								PM _{2.5}	2.09	1.2	0.12	0.069			
XFER32	Volume	EU03	Other	BH31	Baghouse	n/a	n/a	PM	49.75	28.6	2.84	1.634	Solid	AP-42 11.12	Not applicable
								PM ₁₀	13.90	8.0	0.80	0.46			
								PM _{2.5}	2.09	1.2	0.12	0.069			
RET31	Volume	EU03	Other	n/a	n/a	n/a	n/a	PM	7.5e-3	4.3e-3	7.5e-3	4.3e-3	Solid	AP-42 11.12	Not applicable
								PM ₁₀	2.1e-3	1.2e-3	2.1e-3	1.2e-3			
								PM _{2.5}	3.1e-4	1.8e-4	3.1e-4	1.8e-4			

The EMISSION POINTS DATA SUMMARY SHEET provides a summation of emissions by emission unit. Note that uncaptured process emission unit emissions are not typically considered to be fugitive and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET. Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions). Please complete the FUGITIVE EMISSIONS DATA SUMMARY SHEET for fugitive emission activities.

¹ Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.

² Indicate by "C" if venting is continuous. Otherwise, specify the average short-term venting rate with units, for intermittent venting (ie., 15 min/hr). Indicate as many rates as needed to clarify frequency of venting (e.g., 5 min/day, 2 days/wk).

³ List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. **LIST** Acids, CO, CS₂, VOCs, H₂S, Inorganics, Lead, Organics, O₃, NO, NO₂, SO₂, SO₃, all applicable Greenhouse Gases (including CO₂ and methane), etc. **DO NOT LIST** H₂, H₂O, N₂, O₂, and Noble Gases.

⁴ Give maximum potential emission rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

⁵ Give maximum potential emission rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

⁶ Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).

⁷ Provide for all pollutant emissions. Typically, the units of parts per million by volume (ppmv) are used. If the emission is a mineral acid (sulfuric, nitric, hydrochloric or phosphoric) use units of milligram per dry cubic meter (mg/m³) at standard conditions (68 °F and 29.92 inches Hg) (see 45CSR7). If the pollutant is SO₂, use units of ppmv (See 45CSR10).

**Attachment J
EMISSION POINTS DATA SUMMARY SHEET**

Table 2: Release Parameter Data								
Emission Point ID No. <i>(Must match Emission Units Table)</i>	Inner Diameter (ft.)	Exit Gas			Emission Point Elevation (ft)		UTM Coordinates (km)	
		Temp. (°F)	Volumetric Flow ¹ (acfm) <i>at operating conditions</i>	Velocity (fps)	Ground Level <i>(Height above mean sea level)</i>	Stack Height ² <i>(Release height of emissions above ground level)</i>	Northing	Easting
BHEX31	7" x 12" Pre 2006, 8" x 15" (2006 to present)	Ambient	600 acfm (each)	12	tbd	10 feet	Tbd	Tbd

¹ Give at operating conditions. Include inerts.
² Release height of emissions above ground level.

**Attachment J
EMISSION POINTS DATA SUMMARY SHEET**

Table 1: Emissions Data															
Emission Point ID No. (Must match Emission Units Table & Plot Plan)	Emission Point Type ¹	Emission Unit Vented Through This Point (Must match Emission Units Table & Plot Plan)		Air Pollution Control Device (Must match Emission Units Table & Plot Plan)		Vent Time for Emission Unit (chemical processes only)		All Regulated Pollutants - Chemical Name/CAS ³ (Speciate VOCs & HAPS)	Maximum Potential Uncontrolled Emissions ⁴		Maximum Potential Controlled Emissions ⁵		Emission Form or Phase (At exit conditions, Solid, Liquid or Gas/Vapor)	Est. Method Used ⁶	Emission Concentration ⁷ (ppmv or mg/m ⁴)
		ID No.	Source	ID No.	Device Type	Short Term ²	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
XFER41	Volume	EU04	Other	BH41	Baghouse	n/a	n/a	PM	3.66	0.62	0.37	0.062	Solid	AP-42 13.2.4	Not applicable
								PM ₁₀	1.73	0.29	0.17	0.029			
								PM _{2.5}	0.26	0.04	0.026	0.044			
XFER42	Volume	EU04	Other	BH41	Baghouse	n/a	n/a	PM	3.66	0.62	0.37	0.062	Solid	AP-42 13.2.4	Not applicable
								PM ₁₀	1.73	0.29	0.17	0.029			
								PM _{2.5}	0.26	0.04	0.026	0.044			
RET41	Volume	EU03	Other	n/a	n/a	n/a	n/a	PM	5.5e-4	9.2e-5	5.5e-4	9.2e-5	Solid	AP-42 13.2.4	Not applicable
								PM ₁₀	2.6e-4	4.4e-5	2.6e-4	4.4e-5			
								PM _{2.5}	3.9e-5	6.6e-4	3.9e-5	6.6e-4			

The EMISSION POINTS DATA SUMMARY SHEET provides a summation of emissions by emission unit. Note that uncaptured process emission unit emissions are not typically considered to be fugitive and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET. Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions). Please complete the FUGITIVE EMISSIONS DATA SUMMARY SHEET for fugitive emission activities.

¹ Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.

² Indicate by "C" if venting is continuous. Otherwise, specify the average short-term venting rate with units, for intermittent venting (ie., 15 min/hr). Indicate as many rates as needed to clarify frequency of venting (e.g., 5 min/day, 2 days/wk).

³ List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. **LIST** Acids, CO, CS₂, VOCs, H₂S, Inorganics, Lead, Organics, O₃, NO, NO₂, SO₂, SO₃, all applicable Greenhouse Gases (including CO₂ and methane), etc. **DO NOT LIST** H₂, H₂O, N₂, O₂, and Noble Gases.

⁴ Give maximum potential emission rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

⁵ Give maximum potential emission rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

⁶ Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).

⁷ Provide for all pollutant emissions. Typically, the units of parts per million by volume (ppmv) are used. If the emission is a mineral acid (sulfuric, nitric, hydrochloric or phosphoric) use units of milligram per dry cubic meter (mg/m³) at standard conditions (68 °F and 29.92 inches Hg) (see 45CSR7). If the pollutant is SO₂, use units of ppmv (See 45CSR10).

**Attachment J
EMISSION POINTS DATA SUMMARY SHEET**

Table 2: Release Parameter Data								
Emission Point ID No. <i>(Must match Emission Units Table)</i>	Inner Diameter (ft.)	Exit Gas			Emission Point Elevation (ft)		UTM Coordinates (km)	
		Temp. (°F)	Volumetric Flow ¹ (acfm) <i>at operating conditions</i>	Velocity (fps)	Ground Level <i>(Height above mean sea level)</i>	Stack Height ² <i>(Release height of emissions above ground level)</i>	Northing	Easting
BHEX41	7" x 12" Pre 2006, 8" x 15" (2006 to present)	Ambient	600 acfm (each)	12	tbd	10 feet	Tbd	Tbd

¹ Give at operating conditions. Include inerts.
² Release height of emissions above ground level.

Attachment K – Fugitive Emissions Data Summary Sheet

Attachment K

FUGITIVE EMISSIONS DATA SUMMARY SHEET

The FUGITIVE EMISSIONS SUMMARY SHEET provides a summation of fugitive emissions. Fugitive emissions are those emissions which could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening. Note that uncaptured process emissions are not typically considered to be fugitive, and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET.

Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions).

APPLICATION FORMS CHECKLIST - FUGITIVE EMISSIONS
1.) Will there be haul road activities? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> If YES, then complete the HAUL ROAD EMISSIONS UNIT DATA SHEET.
2.) Will there be Storage Piles? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If YES, complete Table 1 of the NONMETALLIC MINERALS PROCESSING EMISSIONS UNIT DATA SHEET.
3.) Will there be Liquid Loading/Unloading Operations? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If YES, complete the BULK LIQUID TRANSFER OPERATIONS EMISSIONS UNIT DATA SHEET.
4.) Will there be emissions of air pollutants from Wastewater Treatment Evaporation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET.
5.) Will there be Equipment Leaks (e.g. leaks from pumps, compressors, in-line process valves, pressure relief devices, open-ended valves, sampling connections, flanges, agitators, cooling towers, etc.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If YES, complete the LEAK SOURCE DATA SHEET section of the CHEMICAL PROCESSES EMISSIONS UNIT DATA SHEET.
6.) Will there be General Clean-up VOC Operations? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET.
7.) Will there be any other activities that generate fugitive emissions? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET or the most appropriate form.
If you answered "NO" to all of the items above, it is not necessary to complete the following table, "Fugitive Emissions Summary."

FUGITIVE EMISSIONS SUMMARY	All Regulated Pollutants Chemical Name/CAS ¹	Maximum Potential Uncontrolled Emissions ²		Maximum Potential Controlled Emissions ³		Est. Method Used ⁴
		lb/hr	ton/yr	lb/hr	ton/yr	
Haul Road/Road Dust Emissions Paved Haul Roads						
Unpaved Haul Roads	PM / PM10 / PM2.5	3.77 / 1.04 / 0.10	1.62 / 0.45 / 0.04	3.77 / 1.04 / 0.10	1.62 / 0.45 / 0.04	AP-42
Storage Pile Emissions						
Loading/Unloading Operations						
Wastewater Treatment Evaporation & Operations						
Equipment Leaks		Does not apply		Does not apply		
General Clean-up VOC Emissions						
Other Fugitive Emissions are Listed on Form J	PM, PM₁₀, PM_{2.5}	See Form J	See Form J	See Form J	See Form J	EE

¹ List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. LIST Acids, CO, CS₂, VOCs, H₂S, Inorganics, Lead, Organics, O₃, NO, NO₂, SO₂, SO₃, all applicable Greenhouse Gases (including CO₂ and methane), etc. DO NOT LIST H₂, H₂O, N₂, O₂, and Noble Gases.

² Give rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

³ Give rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

⁴ Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).

Attachment L – Emissions Unit Data Sheets

Attachment L
EMISSIONS UNIT DATA SHEET
GENERAL

To be used for affected sources other than asphalt plants, foundries, incinerators, indirect heat exchangers, and quarries.

Identification Number (as assigned on *Equipment List Form*): EU04

<p>1. Name or type and model of proposed affected source:</p> <p>Direct transfer of ammonium nitrate between railcars and trucks.</p>
<p>2. On a separate sheet(s), furnish a sketch(es) of this affected source. If a modification is to be made to this source, clearly indicated the change(s). Provide a narrative description of all features of the affected source which may affect the production of air pollutants.</p>
<p>3. Name(s) and maximum amount of proposed process material(s) charged per hour:</p> <p>50 tons per hour based on 1 conveyor.</p>
<p>4. Name(s) and maximum amount of proposed material(s) produced per hour:</p> <p>50 tons per hour based on 1 conveyor.</p>
<p>5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants:</p> <p>Not Applicable.</p>

* The identification number which appears here must correspond to the air pollution control device identification number appearing on the *List Form*.

6. Combustion Data (if applicable):			
(a) Type and amount in appropriate units of fuel(s) to be burned:			
Not applicable			
(b) Chemical analysis of proposed fuel(s), excluding coal, including maximum percent sulfur and ash:			
Not applicable			
(c) Theoretical combustion air requirement (ACF/unit of fuel):			
@	°F and	psia.	
(d) Percent excess air:			
(e) Type and BTU/hr of burners and all other firing equipment planned to be used:			
(f) If coal is proposed as a source of fuel, identify supplier and seams and give sizing of the coal as it will be fired:			
(g) Proposed maximum design heat input:			× 10 ⁶ BTU/hr.
7. Projected operating schedule:			
Hours/Day	24	Days/Week	7
		Weeks/Year	52

8. Projected amount of pollutants that would be emitted from this affected source if no control devices were used:

@	°F and	psia
a. NO _x		lb/hr grains/ACF
b. SO ₂		lb/hr grains/ACF
c. CO		lb/hr grains/ACF
d. PM ₁₀	3.52	lb/hr grains/ACF
e. Hydrocarbons		lb/hr grains/ACF
f. VOCs		lb/hr grains/ACF
g. Pb		lb/hr grains/ACF
h. Specify other(s)		
PM (total)	7.38	lb/hr grains/ACF
PM2.5	0.58	lb/hr grains/ACF
		lb/hr grains/ACF
		lb/hr grains/ACF

NOTE: (1) An Air Pollution Control Device Sheet must be completed for any air pollution device(s) used to control emissions from this affected source.

(2) Complete the Emission Points Data Sheet.

9. Proposed Monitoring, Recordkeeping, Reporting, and Testing
 Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

<p>MONITORING</p> <p>Monthly throughput (tons of ammonium nitrate)</p>	<p>RECORDKEEPING</p> <p>Monthly throughput (tons of ammonium nitrate) Monthly PM emissions</p>
---	--

<p>REPORTING</p> <p>None proposed.</p>	<p>TESTING</p> <p>None proposed.</p>
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MONITORING. PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION/AIR POLLUTION CONTROL DEVICE.

RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING.

REPORTING. PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING.

TESTING. PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT/AIR POLLUTION CONTROL DEVICE.

10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty

Monthly periodic maintenance will be performed on conveyor, which includes checking of various belts and bearings. Baghouse maintenance is described on the baghouse form.

Attachment M – Air Pollution Control Device

Form 2236

Manufacturer Information

Attachment M
Air Pollution Control Device Sheet
(BAGHOUSE)

Control Device ID No. (must match Emission Units Table):

Equipment Information and Filter Characteristics

1. Manufacturer: RBT Inc. Model No. UMA 100		2. Total number of compartments: 1	
		3. Number of compartment online for normal operation: 1	
4. Provide diagram(s) of unit describing capture system with duct arrangement and size of duct, air volume, capacity, horsepower of movers. If applicable, state hood face velocity and hood collection efficiency.			
5. Baghouse Configuration: <input type="checkbox"/> Open Pressure <input type="checkbox"/> Closed Pressure <input checked="" type="checkbox"/> Closed Suction (check one) <input type="checkbox"/> Electrostatically Enhanced Fabric <input type="checkbox"/> Other, Specify			
6. Filter Fabric Bag Material: <input type="checkbox"/> Nomex nylon <input type="checkbox"/> Wool <input checked="" type="checkbox"/> Polyester <input type="checkbox"/> Polypropylene <input type="checkbox"/> Acrylics <input type="checkbox"/> Ceramics <input type="checkbox"/> Fiber Glass <input type="checkbox"/> Cotton Weight oz./sq.yd <input type="checkbox"/> Teflon Thickness in <input type="checkbox"/> Others, specify		7. Bag Dimension: not applicable, see following Diameter in. Length ft.	
		8. Total cloth area: 100 ft ²	
		9. Number of bags: 1 bag divided into 18 envelopes	
		10. Operating air to cloth ratio: 6:1 ft/min	
11. Baghouse Operation: <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Automatic <input type="checkbox"/> Intermittent			
12. Method used to clean bags: <input checked="" type="checkbox"/> Mechanical Shaker <input type="checkbox"/> Sonic Cleaning <input type="checkbox"/> Reverse Air Jet <input type="checkbox"/> Pneumatic Shaker <input type="checkbox"/> Reverse Air Flow <input type="checkbox"/> Other: <input type="checkbox"/> Bag Collapse <input type="checkbox"/> Pulse Jet <input type="checkbox"/> Manual Cleaning <input type="checkbox"/> Reverse Jet			
13. Cleaning initiated by: <input checked="" type="checkbox"/> Timer <input checked="" type="checkbox"/> Frequency if timer actuated established by site <input type="checkbox"/> Expected pressure drop range in. of water <input type="checkbox"/> Other			
14. Operation Hours: Max. per day: 24 Max. per yr: 8,760		15. Collection efficiency: Rating: 99.4 % Guaranteed minimum: 99 %	

Gas Stream Characteristics

16. Gas flow rate into the collector: 600 ACFM at ambient °F and ambient PSIA ACFM: Design: 600 PSIA Maximum: ambient PSIA Average Expected: ambient PSIA	
17. Water Vapor Content of Effluent Stream: ambient lb. Water/lb. Dry Air	
18. Gas Stream Temperature: ambient °F	19. Fan Requirements: hp OR ft ³ /min
20. Stabilized static pressure loss across baghouse. Pressure Drop: High 5 in. H ₂ O Low 1 in. H ₂ O	
21. Particulate Loading: Inlet: >2 grain/scf Outlet: 0.01 grain/scf	

22. Type of Pollutant(s) to be collected (if particulate give specific type): Particulate (frac sand and cement)

23. Is there any SO₃ in the emission stream? No Yes SO₃ content: ppmv

24. Emission rate of pollutant (specify) into and out of collector at maximum design operating conditions:

Pollutant	IN		OUT	
	lb/hr	grains/acf	lb/hr	grains/acf
PM		>2	0.05	0.01

25. Complete the table: N/A

Particulate Size Range (microns)	Particle Size Distribution at Inlet to Collector	Fraction Efficiency of Collector
	Weight % for Size Range	Weight % for Size Range
0 – 2	N/A	N/A
2 – 4	N/A	N/A
4 – 6		
6 – 8		
8 – 10		
10 – 12		
12 – 16		
16 – 20		
20 – 30		
30 – 40		
40 – 50		
50 – 60		
60 – 70		
70 – 80		
80 – 90		
90 – 100		
>100		

26. How is filter monitored for indications of deterioration (e.g., broken bags)?

- Continuous Opacity
- Pressure Drop
- Alarms-Audible to Process Operator
- Visual opacity readings, Frequency:
- Other, specify:

27. Describe any recording device and frequency of log entries:

Pressure drop indicator, checked daily (if used) to be in the appropriate range.
Daily visual observation of exhaust for normal characteristics (no visible emissions)

28. Describe any filter seeding being performed:

Not applicable

29. Describe any air pollution control device inlet and outlet gas conditioning processes (e.g., gas cooling, gas reheating, gas humidification):

Not applicable

30. Describe the collection material disposal system:

Return to conveyor / receiving truck.

31. Have you included **Baghouse Control Device** in the Emissions Points Data Summary Sheet?

Yes

32. Proposed Monitoring, Recordkeeping, Reporting, and Testing

Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING:

Pressure drop (within normal range)
Visual observations

RECORDKEEPING:

Daily (upon use) logs.
Pressured drop – check mark if within established range
Visual observation – check mark if there are no visible emissions observed

REPORTING:

None proposed.

TESTING:

None proposed.

MONITORING: Please list and describe the process parameters and ranges that are proposed to be monitored in order to demonstrate compliance with the operation of this process equipment or air control device.

RECORDKEEPING: Please describe the proposed recordkeeping that will accompany the monitoring.

REPORTING: Please describe any proposed emissions testing for this process equipment on air pollution control device.

TESTING: Please describe any proposed emissions testing for this process equipment on air pollution control device.

33. Manufacturer's Guaranteed Capture Efficiency for each air pollutant.

Particulate matter 99% to 1 micron. Primarily based on outlet loading of 20 milligrams per cubic meter.

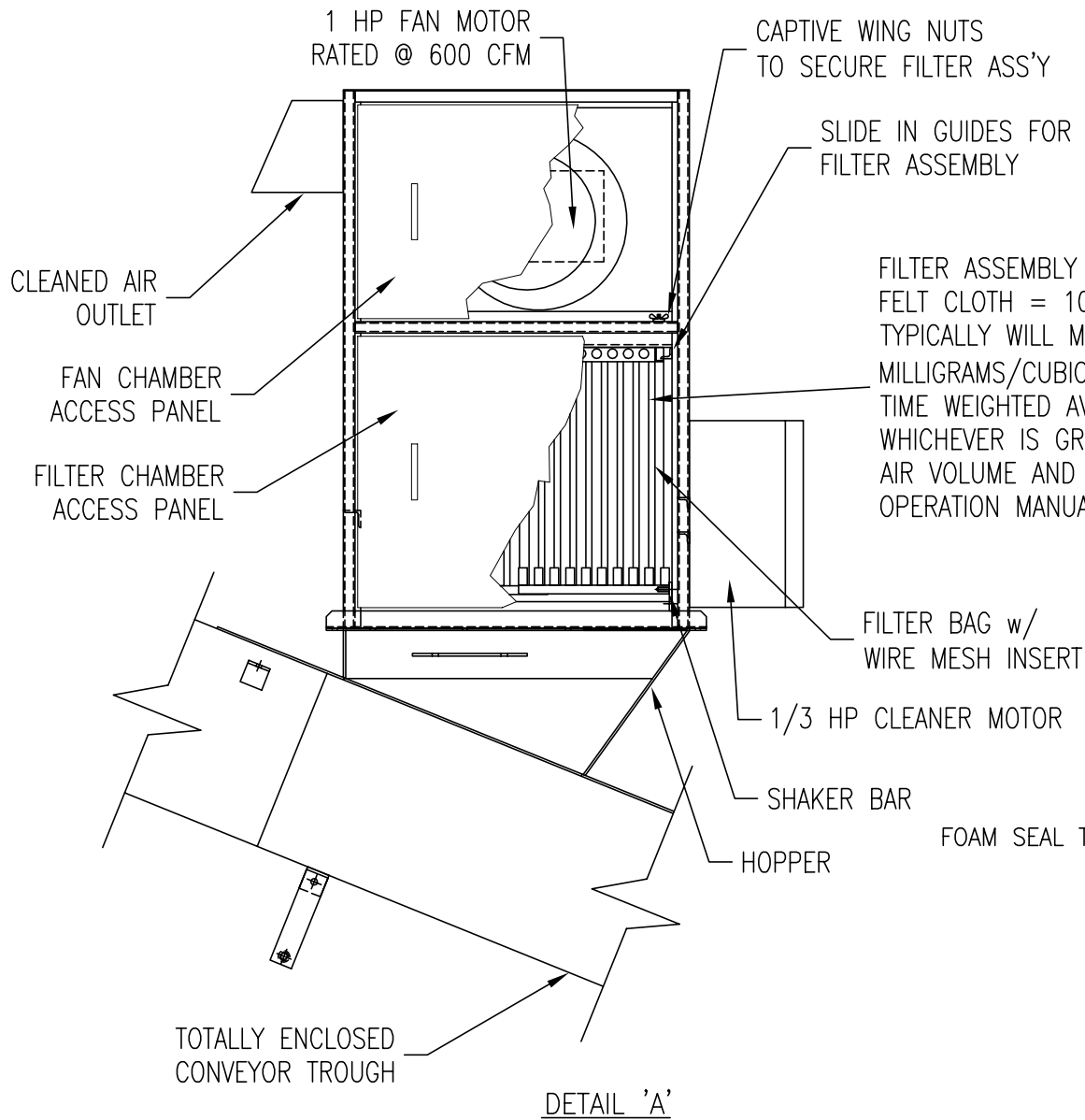
34. Manufacturer's Guaranteed Control Efficiency for each air pollutant.

Particulate matter 99% to 1 micron. Primarily based on outlet loading of 20 milligrams per cubic meter.

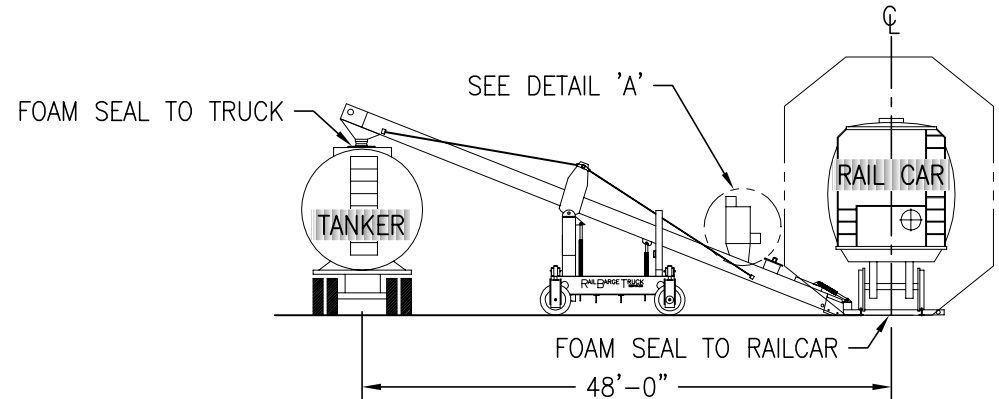
35. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty.

Pressure drop 1 to 5 inches.

Monthly maintenance procedures include inspect rotary valve, sprockets, chain, and motor, inspect screw conveyor bearings, trough, flights, sprockets, chains and motor, spot check bag tension and condition inside of collector, check pickup stations for obstructions, inspect blower fan bearings, balance, material build-up, belt drive and motor, inspect screw conveyor bearings, trough, flights, sprockets, chains and motor, check all air lines and solenoids to pulse air systems, clean and check air line filters, lubricate fan shaft bearings.



FILTER ASSEMBLY - 9oz. HEAT SET AND SCOURED WOVEN POLYESTER FELT CLOTH = 100 SQ. FT. OF CLOTH AREA. TYPICALLY WILL MEET AN OUTLET EMISSIONS LEVEL OF 15-20 MILLIGRAMS/CUBIC METER OR AN EFFICIENCY OF +99% BY WEIGHT ON A TIME WEIGHTED AVERAGE DOWN TO AND INCLUDING 1.0 MICRON PARTICLE SIZE, WHICHEVER IS GREATER, PROVIDED THE COLLECTOR OPERATES AT THE SPECIFIED AIR VOLUME AND TEMPERATURE, AND IS MAINTAINED AS REQUIRED IN THE OPERATION MANUAL PROVIDED WITH THE COLLECTOR.



1	03/027/03	REVISE NOTES TO MANUFACTURER SPEC	SWD
0	06/03/02	REVISED PER DRAWING STANDARDS	DWD

REV. #	DATE:	DESCRIPTION:	BY:	DESCRIPTION:
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218 CORPORATE DRIVE
ELIZABETHTOWN, KY 42701
PHONE: (270) 763-6649
FAX: (270) 763-6653
e-mail: sales@rbtsi.com

DCE MODEL UMA-100
DUST COLLECTOR
DETAIL OVERVIEW

THIS DRAWING, CONCEPTS, AND DESIGNS SHOWN THEREON ARE THE EXCLUSIVE PROPERTY OF RBT SERVICES, INC AND ARE NOT TO BE USED OR REPRODUCED IN WHOLE OR IN PART, WITHOUT THE WRITTEN CONSENT OF RBT SERVICES, INC.

DRAWN BY: RDB	DRAWN DATE: 08/13/98	APPROVED BY: BHJR	APPROVED DATE: 08/13/98
CHECKED BY:	CHECKED DATE:	SHEET NUMBER:	OF
CUSTOMER:	JOB NO:	SCALE:	N/A
LOCATION:	DWG NO:	UMA-100	

RBT Services, Inc.

January 12, 2004

Attn: Steve Dalton

Address: 218 Corporate Dr.
Elizabethtown, KY 42701

Reference: RBT Efficiency Expectations; Dalamatics, UMA100, UMA 152, and C20H Units

Equipment	The units involved are generally described as Dalamatics, Unimasters (UMA100, UMA152) and Unicell (C20H).
Application	The general application has been described as nuisance collection of dust from material handling transfer points on mechanical conveying systems handling a variety of materials.
Inlet Loading	Anticipated to be in excess of 2 grains per cubic foot
Air Volume	Varies and should be reported by customer at time of sale
Gas Stream	Ambient conditions
Collector Location	Units are installed at a variety of locations handling nuisance dust from mechanical conveying of various materials.
Collector Exhaust	Collectors will generally exhaust to atmosphere

The Donaldson Dalamatic Collectors being installed and operated in accordance with the Installation, Operation and Maintenance Manual; accepted industrial ventilation practices; and under the operating air volumes and temperature specified a time of sale, will typically provide outlet emissions of 2–5 milligrams per cubic meter or an efficiency of 99.95% by weight on a time weighted average down to and including 1.0 micron particles, whichever is greater.

The Donaldson Model UMA100 and UMA152 Collectors being installed and operated in accordance with the Installation, Operation and Maintenance Manual; accepted industrial ventilation practices; and under the operating air volumes and temperature specified a time of sale, will typically provide outlet emissions of 15–20 milligrams per cubic meter or an efficiency of 99.4% by weight on a time weighted average down to and including 1.0 micron particles, whichever is greater.

The Donaldson Unicell C20H Collector being installed and operated in accordance with the Installation, Operation and Maintenance Manual; accepted industrial ventilation practices; and under the operating air volumes and temperature specified a the time of sale, will typically provide outlet emissions of 2 milligrams per cubic meter or an efficiency of 99.99% by weight on a time weighted average down to and including 1.0 micron particles, whichever is greater.

These performance expectations do not cover failures due to negligence or improper operation and specifically exclude failures due to exceeding the recommended air-to-media ratios; damage due to fire, corrosion, abrasion or physical abuse; wet or oily compressed air usage (when applicable), or lack of adequate compressed air for proper filter cleaning (when applicable).

Donaldson Company reserves the right to make any modifications, adjustments or take other necessary corrective actions, at Donaldson's expense, should emission performance not be met by equipment malfunction due to defects in materials and/or workmanship as supplied by Donaldson Company. In no event shall Donaldson Company be liable for incidental, special or consequential damages resulting from nonconformity. Failure to use genuine Donaldson replacement parts or changes to the original system, either process or engineering, cancel performance expectations.

Regards,

Hube Visee
Regional Sales Director

Guarantee Number: 04KB0101

Attachment N – Supporting Emission Estimates



OUR EXPERTISE, YOUR ADVANTAGE

Subject: Emission Estimates - TRANSFLO TERMINAL SERVICES, INC.

Table 1 - Ammonium Nitrate Transfer Emissions

Made by: MJH

Date: June 2016
Updated August 2016
Added PM_{2.5} emissions

Ref: AP-42 Chapter 13.2.4; RBT Guarantee Number 08AS0201

PURPOSE: Estimate actual and potential emissions for ammonium nitrate transfer operations. The current operations in Clarksburg, WV (exempt facility) are being consolidated with the Fairmont, WV operations. Update August 2016 - added PM_{2.5} emissions

Specific Location Fairmont, West Virginia
Information: DEP Plant I.D. No. 049-00149

BACKGROUND: Each solids transloading operation consists of four potential emission points:

- Baghouse exhaust emissions
- Drop point from railcar to conveyor (Transfer Point 1)
- Drop point from conveyor to covered truck (Transfer Point 2)
- Drop point from conveyor return to collection bin (Transfer Point 3)



Photograph Showing the Baghouse and Transfer Point 1 (Railcar to Conveyor) and Transfer Point 2 (Conveyor to Covered Truck)



Photograph showing Transfer Point 3 (Conveyor Return to Collection Bin)

GIVEN:	50	tons material transloaded/hr
	15	lbs material/hour from conveyor return (similar TRANSFLO facility staff interview)
	90%	control efficiency of the fugitive emissions from transfer points 1 and 2 - based on engineering judgment and observation
	0.0100	gr/dscf - baghouse emission rate (conservative value based on manufacturer guarantee)
	1.43E-06	lb/dscf - baghouse emission rate (conservative value based on manufacturer guarantee)
	600	cfm (airflow for Model UMA 100)

ESTIMATES:

It is conservatively assumed all emissions from the baghouse are PM₁₀.

Hence PM₁₀ and Particulate emissions are equivalent

Step 1 - Estimate the emissions from the baghouse using the UMA 100 (Emission Point 0002)

600 cfm x 60 min/hr x (above #) lb/dscf = 0.05 lbs PM or PM₁₀ / hr from UMA 100

Step 2 - Estimate the emissions from the transfer points

There are three distinct drop points: 1 - Rail Car to Conveyor, 2 - Conveyor to Truck, and 3 - Conveyor return to collection bin. The control efficiency of transfer point 1 is estimated to be at 90% since the air velocity was measured at 120 feet per minute into the conveyor. The measurement was made during a site visit on March 5, 2008 at the Jacksonville terminal, and used a TSI VelociCalc Model 8347 wind velocity meter. The control efficiency of transfer point 2 is estimated to be 90% (conservative estimate) since a foam seal is used at the transfer point. Visual observations were performed at the Jacksonville facility during a site visit on March 5, 2008. A 0% control is used at transfer point 3 as no controls are currently used.

Using AP-42 Chapter 13.2.4 , Equation 1, the emission factor for each transfer point is estimated. The emissions are inversely proportional to moisture content. Drier materials are "dustier" and have greater emission rates than wetter materials.

Sample calculation for one material follows, similar calculations are used for other materials with different moisture contents

Equation 1 (the "drop equation") is used to estimate the emissions per drop point

$$E = k(0.0032) \times (U/5)^{1.3} / (M/2)^{1.4}$$

where:

k, particle size multiplier =	0.74	(for PM, AP-42 Chapter 13.2.4)
k, particle size multiplier =	0.35	(for PM ₁₀ , AP-42 Chapter 13.2.4)
k, particle size multiplier =	0.053	(for PM _{2.5} , AP-42 Chapter 13.2.4)
U, mean wind speed (mph) =	9.08	(http://lwf.ncdc.noaa.gov/oa/climate/online/ccd/avgwind.html) Windspeed for Pittsburgh, PA used (nearest large city w/ avail data)
M, material moisture content =	0.3%	Typical product specifications

Ammonium Nitrate Emission Factor (E) =	0.07323	lbs PM / ton material transferred (intermediate value for drop eqn)
Ammonium Nitrate Emission Factor (E) =	0.03464	lbs PM₁₀ / ton material transferred (intermediate value for drop eqn)
Ammonium Nitrate Emission Factor (E) =	0.00525	lbs PM_{2.5} / ton material transferred (intermediate value for drop eqn)

Transfer Point 1 (Rail Car to Conveyor) - Emission Point XFER41

	Controlled	Uncontrolled	
ton/hr x Drop Eqn. Emission Factor x (1-CE) =	0.366	3.662	lbs PM / hr
	0.062	0.615	tons PM / yr
	0.173	1.732	lbs PM ₁₀ / hr
	0.029	0.291	tons PM ₁₀ / yr
	0.026	0.262	lbs PM _{2.5} / hr
	0.004	0.044	tons PM _{2.5} / yr

Transfer Point 2 (Conveyor to Covered Truck) - Emission Point XFER42

	Controlled	Uncontrolled	
ton/hr x Drop Eqn. Emission Factor x (1-CE) =	0.366	3.662	lbs PM / hr
	0.062	0.615	tons PM / yr
	0.173	1.732	lbs PM ₁₀ / hr
	0.029	0.291	tons PM ₁₀ / yr
	0.026	0.262	lbs PM _{2.5} / hr
	0.004	0.044	tons PM _{2.5} / yr

Transfer Point 3 (Conveyor Return to Collection Bin) - Emission Point RET41

	Controlled	Uncontrolled
15 lbs/hr x 1 ton/2,000 lbs x Emission factor=	0.00055	5.5E-04 lbs PM / hr
	0.0001	9.2E-05 tons PM / yr
	0.00026	2.6E-04 lbs PM ₁₀ / hr
	0.00004	4.4E-05 tons PM ₁₀ / yr
	0.00004	3.9E-05 lbs PM _{2.5} / hr
	0.00001	6.6E-06 tons PM _{2.5} / yr

Total Emission Rates

Transfer Point 1 + Transfer Point 2 + Transfer Point 3 +Baghouse =

PM Emissions	Controlled	Uncontrolled	
Total Emissions =	0.784	7.375	lbs PM / hr
Baghouse =	0.051	0.051	lbs PM / hr Emission Point BHEX41
Transfer Points =	0.733	7.324	lbs PM / hr
tons / hour =	50	50	for 24 inch conveyor
Emission Rate =	0.0157	0.1475	lbs PM / ton material transferred
Per railcar =	1.57	14.75	lbs PM / 100 ton railcar
Annual emissions	94.12		lbs PM
Annual emissions	0.05		tons PM
Potential emissions	263.53		lbs PM /year
Potential emissions	0.13		tons PM / year
Transfer Points=	0.12		tons PM / year
Baghouse =	0.01		tons PM / year

PM₁₀ Emissions

Emissions =	0.398	3.515	lbs PM ₁₀ / hr
Baghouse =	0.051	0.051	lbs PM ₁₀ / hr
Transfer Points =	0.347	3.464	lbs PM ₁₀ / hr
tons / hour =	50	50	for 24 inch conveyor
Emission Rate =	0.0080	0.0703	lbs PM ₁₀ / ton material transferred
Per railcar =	0.80	7.03	lbs PM ₁₀ / 100 ton railcar
Annual emissions	47.77		lbs PM ₁₀
Annual emissions	0.02		tons PM ₁₀
Potential emissions	133.75		lbs PM ₁₀ /year
Potential emissions	0.07		tons PM ₁₀ / year
Transfer Points=	0.06		tons PM ₁₀ / year
Baghouse =	0.01		tons PM ₁₀ / year

PM_{2.5} Emissions

Emissions =	0.104	0.576	lbs PM _{2.5} / hr
Baghouse =	0.051	0.051	lbs PM _{2.5} / hr
Transfer Points =	0.052	0.525	lbs PM _{2.5} / hr
tons / hour =	50	50	for 24 inch conveyor
Emission Rate =	0.0021	0.0115	lbs PM _{2.5} / ton material transferred
Per railcar =	0.21	1.15	lbs PM _{2.5} / 100 ton railcar
Annual emissions	12.47		lbs PM _{2.5}
Annual emissions	0.01		tons PM _{2.5}
Potential emissions	34.92		lbs PM _{2.5} /year
Potential emissions	0.02		tons PM _{2.5} / year
Transfer Points=	0.01		tons PM _{2.5} / year
Baghouse =	0.01		tons PM _{2.5} / year

Annual Throughput	5,941 tons / year
Annual Railcars	60 rc/year
PTE : Actual	2.8 dimensionless
(24 hrs / day * 7 days / week) : (10 hrs / day * 6 days / week)	
Potential RC / Year	168 rc / year
Tons / railcar	100 tons / rc
Potential Throughput	16,800 tons / year
Throughput rate	50 tons / hour
Potential Hours / Yr	336 hours / yr

Clarksburg, 6/2015 -
5/2016
Rounded, 100 tons / RC

At Maximum throughput
rate



Subject: TRANSFLO Terminal Services, Inc., Fairmont WV		
Table 9 - On-site Road Emissions	Made by: MJH	Date: August 2016
Ref: TRANSFLO Supplied Information, AP-42 §13.2.2 West Virginia DEP Plant ID No. 049-00149		Ammonium Nitrate Only

Purpose

This worksheet provides emission estimates from on-site vehicular traffic. This worksheet is for Ammonium Nitrate emissions only.

Emissions are estimated using the AP-42 Section 13.2.2 equation 1a for vehicles traveling on unpaved surfaces at industrial sites:

$$E = k (s/12)^a (W/3)^b$$

Where:

- E = site-specific emission factor (lb/VMT)
- s = Surface material silt content (%)
- W = mean vehicle weight (tons)

k, a, b are empirical constants - listed following

Constant	PM _{2.5}	PM ₁₀	PM ₃₀ *
k (lb/VMT)	0.15	1.5	4.9
a	0.9	0.9	0.7
b	0.45	0.45	0.45

* PM₃₀ is assumed equal to total suspended particulate (Total PM)

Parameter	Value	Units	Comments
s	7	percent	From ballast specification, passing 200 mesh (95 microns)
W	37.5	tons	Midrange of 70 to 80k pounds per truck, gross

	PM _{2.5}	PM ₁₀	PM ₃₀ *	
E	0.29	2.88	10.47	lb/VMT

The next step is to estimate total number of trucks and miles traveled per year

Net Weight	19.5	tons	Midrange of net weight per truck, Marc Scena, TRANSFLO Operations MFOE
------------	------	------	--

Maximum Annual Throughput

Ammonium Nitrate	16,800	tons / year	From emissions spreadsheet, 2.8 * recent throughput in Clarksburg, WV
Ammonium Nitrate Trucks	862	trucks / yr	(tons/yr) / (tons/truck)

Ammonium Nitrate Distance Traveled

Track Mid Point	950	Feet	Distance to Gate (feet)
Track Mid Point	0.18	miles	(feet / (5,280 feet / mile))
Truck Total Mileage (Annual)	310	Miles / year	(Miles / truck) * (trucks / year) * 2 (trips / round trip)
Total Distance Traveled	310	Miles / year	Ammonium Nitrate Only

Uncontrolled Emission Rates

Annual Emission Rates	Pounds / Year			Tons / Year		
	PM _{2.5}	PM ₁₀	PM ₃₀ *	PM _{2.5}	PM ₁₀	PM ₃₀ *
Ammonium Nitrate	89	892	3,246	0.04	0.45	1.62

Control Efficiency 50% AP-42, Figure 13.2.2-2, Periodic watering is required by permit typical value

Controlled Emission Rates

Annual Emission Rates	Pounds / Year			Tons / Year		
	PM _{2.5}	PM ₁₀	PM ₃₀ *	PM _{2.5}	PM ₁₀	PM ₃₀ *
Ammonium Nitrate	45	446	1,623	0.02	0.22	0.81

Next, estimate short term emission rates

Parameter	Value	Units	Comments
Ammonium Nitrate trucks / hour	1	Trucks / hour	Based on typical material throughput
VMT / hour (Cement)	0.36	Miles / hr	(Trucks/hour) * (mean distance) * (2 trips / RT)

Uncontrolled Emission Rates

Hourly Emission Rates (lbs/hr)	PM _{2.5}	PM ₁₀	PM ₃₀ *
Ammonium Nitrate	0.10	1.04	3.77

Controlled Emission Rates

Hourly Emission Rates (lbs/hr)	PM _{2.5}	PM ₁₀	PM ₃₀ *
Ammonium Nitrate	0.05	0.52	1.88

**Attachment O – Monitoring, Recordkeeping, Reporting and
Testing Plans**

Typical Conveyor Inspection Sheet

Database Report



CONVEYOR INSPECTION CHECKLIST

MONTH _____ DAY _____ YEAR _____ TERMINAL _____

UNIT # _____ CHECK ONE _____ MONTHLY QUARTERLY YEARLY
ENGINE _____ HOURS _____ INSP./SIGN _____

CHECK TWO: BELT _____ CHAIN _____ PORTABLE _____ STATIONARY _____

OK REPAIR MONTHLY SAFETY (A)

- 1. GENERAL CONDITION.
- 2. ALL GUARDS IN PLACE.
- 3. FIRE EXTINGUISHER CERTIFIED AND FULL.
- 4. RAIL CAR CHOCKS (AND TIRE CHOCKS IF APPLICABLE).
- 5. CHECK TO SEE ALL LIGHTS ARE WORKING.
- 6. CHECK CONDITION OF CATWALK/STAIRS AND SAFETY LABELS

ENGINE (B)

- 1. CHANGE FUEL FILTERS AND CHECK INJECTOR LINE HOLD DOWNS.
- 2. CHECK COMPLETE AIR INTAKE SYSTEM, CHANGE FILTER IF NEEDED.
- 3. CHECK COMPLETE EXHAUST SYSTEM.
- 4. CHECK ANTIFREEZE TO (-35 F) AND HOSES (IF APPLICABLE).
- 5. CHECK FAN BELT FOR WEAR (IF APPLICABLE).
- 6. CHECK ALL GAUGES, HOUR METER, WIRING AND CONNECTIONS FOR WEAR AND PROPER OPERATION.
- 7. CLEAN RADIATOR EXTERNALLY (IF APPLICABLE).
- 8. CHECK BATTERY CABLES, MOUNTING AND FLUID LEVELS.
- 9. CHECK OIL LEVEL (IF APPLICABLE).

HYDRAULIC (C)

- 1. CHECK HYDRAULIC OIL LEVEL.
- 2. CHECK ALL FITTINGS AND HOSES FOR FRAYS AND LEAKS.
- 3. CHECK HYDRAULIC GAUGES, CYLINDERS, FLOW CONTROLS AND MOUNTINGS.
- 4. CHECK ALL VALVES FOR PROPER OPERATION AND IDENTIFICATION LABELS.
- 5. CHECK VIBRATOR FOR PROPER OPERATION.

DRIVE TRAIN (D)

- 1. CHECK TIRES (PRESSURE, CONDITION, RIMS AND LUG BOLTS).
- 2. CHECK STEERING CHAIN FOR PROPER TENSION AND LUBRICATION.
- 3. GREASE STEERINGS, SPINDLES, THRUST BEARINGS AND MASTS.
- 4. CHECK FOR CRACKS, LOOSE AND MISSING BOLTS.
- 5. CHECK DRIVE MOTORS AND TORQUE HUBS FOR LEAKS AND LOOSE OR MISSING BOLTS.
- 6. STEAM CLEAN AND TOUCH UP PAINT.

ELECTRICAL (E)

- 1. INSPECT ELECTRICAL CORD, CONNECTION, STRAIN RELIEF AND PLUG FOR WEAR (IF APPLICABLE).
- 2. CHECK ELECTRICAL SWITCHES, CONNECTIONS AND CABLES FOR WEAR AND PROPER OPERATION.
- 3. CHECK FOR PROPER ELECTRICAL IDENTIFICATION LABELS.

TRANSFER (F)

- 1. CHECK BELT, SPLICES, AND CHAIN FOR TENSION, DAMAGE, WEAR AND TRACKING.
- 2. GREASE AND INSPECT ALL BEARINGS, ROLLERS AND TAKE UPS.
- 3. CHECK DUST COLLECTOR OPERATION AND BAGS FOR TEARS, HOLES AND CLEANLINESS.
- 4. CHECK MOTOR DRIVE BELTS FOR WEAR AND TENSION.
- 5. CHECK FOAM ON RAIL CAR TAIL ADAPTERS AND LOAD SPOUT (IF APPLICABLE).
- 6. CHECK FLEXIBLE HOSE FROM SPOUT.
- 7. CHECK PRODUCT GUIDE RUBBERS ON CONVEYOR TAIL (BELT ONLY).
- 8. CHECK ALL RETURN TROUGHS AND CATCH PANS FOR PRODUCT RESIDUE.

BAGHOUSE (G)

- 1. RECORD PRESSURE DROP ON BAGHOUSE PRESSURE GAUGE WHILE BAGHOUSE IS RUNNING - ENSURE IT IS WITHIN NORMAL OPERATING RANGE
- 2. VISUALLY INSPECT THE BAGS FOR HOLES, TEARS, CRACKS OR OTHER DEFICIENCIES THAT WOULD CAUSE THE DUST COLLECTOR TO NOT COLLECT DUST EFFICIENTLY.

QUARTERLY (3 MONTHS)

- 1. CHANGE ENGINE OIL AND FILTER (IF APPLICABLE).
- 2. CHANGE HYDRAULIC OIL FILTER.
- 3. CHECK OIL IN GEAR BOX 80/90 W.

QUARTERLY (6 MONTHS)

- 1. CHECK TORQUE HUB FLUID LEVEL (REFER TO MANUAL).
- 2. CHECK WOOD BEARINGS, SPROCKETS, ROLLERS, AND IDLERS FOR WEAR.
- 3. CHANGE ENGINE OIL (IF APPLICABLE).

YEARLY (12 MONTHS)

- 1. GREASE WHEEL BEARINGS.
- 2. VISUALLY INSPECT HYDRAULIC OIL FOR COLOR CLARITY AND REPLACE IF NEEDED.
- 3. CHANGE OIL IN TORQUE HUBS. (REFER TO MANUAL.)
- 4. CHANGE OIL IN GEAR BOX 80/90 W.
- 5. VISUALLY INSPECT RADIATOR COOLANT FOR COLOR CLARITY AND REPLACE IF NEEDED.

MAKE COMMENTS ON BACK

Expiration Date:

Monthly Total Transfer/Emission Estimates (Bulk Solids - Direct Transfer)

Product Name	STCC	CAS Number	Moisture Content (%)	Total Transfers (tons/mo)	PM Emission Factor (lbs/ton)	PM Emissions (tons/mo)	PM10 Emission Factor (lbs/ton)	PM10 Emissions (tons/mo)	PM2.5 Emission Factor (lbs/ton)	PM 2.5 Emitted (tons/mo)
Sand	1441310		1.00%	198	0.000623	0.000062	0.000435	0.000043	0.000369	0.000037
EU01 Direct Transfer Monthly Total				198		0.000062		0.000043		0.000037

Monthly Total Transfer/Emission Estimates (Bulk Solids - Intermediate Storage)

Product Name	STCC	CAS Number	Moisture Content (%)	Total Transfers (tons/mo)	PM Emission Factor (lbs/ton)	PM Emissions (tons/mo)	PM10 Emission Factor (lbs/ton)	PM10 Emissions (tons/mo)	PM2.5 Emission Factor (lbs/ton)	PM 2.5 Emitted (tons/mo)
Sand	1441310		1.00%	7,220	0.016870	0.060900	0.006800	0.024548	0.006610	0.023862
EU02 Intermediate Storage Monthly Total				7,220		0.060900		0.024548		0.023862

TRANSFLO Terminal - FAIRMONT, WV

For Dates between 5/1/2015 to 4/30/2016

R13-2962
WV DEP

Expiration Date:

Rolling 12-Month Total Transfer/Emission Estimates (Bulk Solids - Direct Transfer)

Product Name	STCC	CAS Number	Moisture Content (%)	Total Transfers (tons/mo)	PM Emission Factor (lbs/ton)	PM Emissions (tons/mo)	PM10 Emission Factor (lbs/ton)	PM10 Emissions (tons/mo)	PM2.5 Emission Factor (lbs/ton)	PM 2.5 Emitted (tons/mo)
Sand	1441310		1.00%	33,672	0.000623	0.010489	0.000435	0.007324	0.000369	0.006213
EU01 Direct Transfer Rolling 12-Month Total				33,672		0.010489		0.007324		0.006213

Rolling Total Transfer/Emission Estimates (Bulk Solids - Intermediate Storage)

Product Name	STCC	CAS Number	Moisture Content (%)	Total Transfers (tons/mo)	PM Emission Factor (lbs/ton)	PM Emissions (tons/mo)	PM10 Emission Factor (lbs/ton)	PM10 Emissions (tons/mo)	PM2.5 Emission Factor (lbs/ton)	PM 2.5 Emitted (tons/mo)
Sand	1441310		1.00%	182,259	0.016870	1.537357	0.006800	0.619681	0.006610	0.602367
EU02 Intermediate Storage Rolling Total				182,259		1.537357		0.619681		0.602367

Attachment P – Public Notice

A date of August 2016 is listed on the enclosed public notice is the anticipated month of publication. A copy of the actual public notice will be provided with the proof of publication (i.e., publisher's affidavit) and will include the actual date of publication.

AIR QUALITY PERMIT NOTICE Notice of Application

Notice is given that TRANSFLO Terminal Services, Inc. has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a Class II Administrative Update for a material transloading facility located on 900 Washington Street, in Fairmont, in Marion County, West Virginia. The latitude and longitude coordinates are: 39.485867 and -80.130885, respectively.

The applicant estimates the increased potential to discharge the following Regulated Air Pollutants will be:

Total Particulate Matter = 0.13 tons per year;
Particulate Matter with an aerodynamic diameter of 10 microns or less (PM₁₀) = 0.07 tons per year; and
Particulate Matter with an aerodynamic diameter of 2.5 microns or less (PM_{2.5}) = 0.02 tons per year

Startup of operation commenced on the 31st day of May, 2016. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, extension 1250, during normal business hours.

Dated this the **(Day)** day of August, 2016.

By: TRANSFLO Terminal Services, Inc.
Ms. Jan M. Barnes
Director, Health, Safety, Environmental and Quality
500 Water Street, J975
Jacksonville, Florida 32202

Attachment Q – Intentionally Left Blank

Attachment R – Authority of Corporation

