

YOLO-SOLANO AIR QUALITY MANAGEMENT DISTRICT

1947 Galileo Court, Suite 103; Davis, CA 95618

Emission Evaluation

ENGINEER:

René Toledo

FACILITY NAME:

Agrium U.S. Inc.

LOCATION:

The equipment is located at 3961 Channel Drive in West Sacramento. The equipment is not located within 1,000 feet of a K-12 school and is not subject to the requirements of H&S 42301.6.

PROPOSAL:

The source is proposing to modify P-37-82(a3) by:

- Installing a hydrogen (H₂) injection system serving the NO_x Decomposer; and
- Amend the permit to allow for the use of an alternative method to U.S. EPA Method 9 during weekly visible emission evaluations (VEE's).

The source is not proposing a change in the permitted process limits or any other operating conditions.

As proposed, the hydrogen injection system will be used to blend hydrogen and natural gas upstream of the NO_x decomposer. The source expects that NO_x Decomposer's reactive temperature will be lowered and using the blended fuel and thereby eliminate the visible NO_x cloud typically experienced during cold starts and shutdowns.

The additional VEE requirements that will be added to the permit will reflect the list of conditions that contained in a letter from U.S. EPA Enforcement Officer Chief Douglas K. McDaniel (received 01/09/2012 - see file). The additional conditions are necessary in order to obtain the U.S. EPA's and District's approval of the use of Method 22 (Fugitive Opacity) to Method 9 (Visual Opacity).

Each of the application's proposed changes have been evaluated separately below to determine the amendment's compliance with the applicable rules and requirements.

The source has requested that the permit application be processed under the Enhanced New Source Review requirements of Rule 3.4 (New Source Review) allowing for the local and the federal permit to be modified concurrently. As such, this emission evaluation also serves as the District's Statement of Basis and documents the proposed modifications to the facility's Title V permit.

PROCESS:

Nitric Acid Production

The source uses a high pressure process to make nitric acid (HNO₃) from the oxidation of ammonia (NH₃) with air (O₂) over a catalyst. The nitric acid manufactured by the source is considered "weak" with a 50-55% percent acid strength. During normal operation, the NO_x Decomposer uses natural gas fuel and heat to reduce NO₂ emissions in the process' tail gas into nitrogen and water. During startup and planned shutdowns, the source will blend hydrogen and natural gas to lower the NO_x Decomposer's reaction temperature and minimize the production of a visible NO_x plume.

The process is equipped with a continuous emission monitoring system (CEMS) for NO_x and CO.

ATC # C-12-82
PTO # P-37-82(a4) (Reserved)
Title V # F-00470-12 (Proposed)
SIC Code # 2873
UTM E 624.0 km
UTM N 4268.8 km

FLOW DIAGRAM: None

EQUIPMENT: One (1) 3700 BHP air compressor;
one (1) 5 HP stripper feed pump;
one (1) 10 HP condensate feed pump;
one (1) 10 HP ammonia feed pump;
one (1) 15 HP acid feed pump; and
one (1) 20 HP raw water pump

Total electric motor horsepower is 3760 HP.

CONTROL EQUIPMENT: NOx Decomposer, a CO abatement device, and a H2 injection system

APPLICATION DATA / EMISSION FACTOR DATA:

<u>CO Emission Limits</u>	<u>Units</u>	<u>Formula Symbol</u>	<u>Reference</u>
Max. Daily Emissions=	1,000.0 lb/day	EFco-day	Applicant *
1st Quarter Emissions =	90,000 lb/quarter	EFco-1q	Applicant *
2nd Quarter Emissions =	91,000 lb/quarter	EFco-2q	Applicant *
3rd Quarter Emissions =	92,000 lb/quarter	EFco-3q	Applicant *
4th Quarter Emissions =	92,000 lb/quarter	EFco-4q	Applicant *
Max. Yearly Emissions =	168.00 tons/year	EFco-yr	Applicant *

* CO mass emission limits retained from PTO P-37-82(a3).

<u>NOx Emissions Limits</u>	<u>Units</u>	<u>Formula Symbol</u>	<u>Reference</u>
Max. Daily Emissions=	250.0 lb/day	EFnox-day	Applicant *
1st Quarter Emissions =	22,500 lb/quarter	EFnox-1q	Applicant *
2nd Quarter Emissions =	22,750 lb/quarter	EFnox-2q	Applicant *
3rd Quarter Emissions =	23,000 lb/quarter	EFnox-3q	Applicant *
4th Quarter Emissions =	23,000 lb/quarter	EFnox-4q	Applicant *
Max. Yearly Emissions =	42.00 tons/year	EFnox-yr	Applicant *

* NOx mass emission limits retained from PTO P-37-82(a3).

ASSUMPTIONS:

<u>Control Efficiency</u>	<u>Units</u>	<u>Formula Symbol</u>	<u>Reference</u>
CO Abator =	0 % for CO	-	Applicant *
Hydrogen Injection System =	0 % for NOx	-	Applicant **

* Retained from ATC C-11-61.

** Although the application contains some discussion of expected NOx reductions, the application does not propose an explicit NOx reduction efficiency for the H2 injection system. Therefore, the H2 injection system will not be assigned a control efficiency.

PROCESS LIMIT AND EMISSION LIMIT CALCULATIONS:

1. Determine CO Emissions:

Max. Daily CO Emissions = EFco-day =	1,000.0 lb/day
1st Quarter CO Emissions = EFco-1q =	90,000 lb/quarter
2nd Quarter CO Emissions = EFco-2q =	91,000 lb/quarter
3rd Quarter CO Emissions = EFco-3q =	92,000 lb/quarter
4th Quarter CO Emissions = EFco-4q =	92,000 lb/quarter
Max. Yearly CO Emissions = EFco-yr =	168.00 tons/year

2. Determine NOx Emissions:

Max. Daily NOx Emissions = EFnox-day =	250.0 lb/day
1st Quarter NOx Emissions = EFnox-1q =	22,500 lb/quarter

2nd Quarter NOx Emissions = EF _{nox-2q} =	22,750 lb/quarter
3rd Quarter NOx Emissions = EF _{nox-3q} =	23,000 lb/quarter
4th Quarter NOx Emissions = EF _{nox-4q} =	23,000 lb/quarter
Max. Yearly NOx Emissions = EF _{nox-yr} =	42.00 tons/year

RULE & REGULATION COMPLIANCE EVALUATION:

This evaluation reflects only the proposed changes and their applicable regulations. Emissions units that are not affected by the proposed changes will not be included here.

District Rule 2.3-Ringelmann

The version of the rule used in this evaluation is the rule adopted on October 1, 1971, and is part of the California State Implementation Plan (SIP).

Rule Requirement #1:

The Permit Holder shall not discharge into the atmosphere from any single source of emission whatsoever, any air contaminant for a period or periods aggregating more than three (3) minutes in any one (1) hour which is:

- a. As dark or darker in shade as that designated as No. 2 on the Ringelmann Chart as published by the United States Bureau of Mines; or
- b. Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subsection a. of this condition.

Subsuming Demonstration: The requirements of the rule can be streamlined by the more stringent opacity limit of Rule 3.4 (New Source Review), District Rule 2.42 (Nitric Acid Production), and 40 Code of Federal Regulations Part 60 - Subpart G (Standards of Performance for Nitric Acid Plants).

Subsuming Permit Conditions:

Except for qualifying periods of equipment startup or shutdown, no activity associated with the nitric acid manufacturing process shall discharge into the atmosphere any air contaminant for a period or periods aggregating more than three (3) minutes in any one (1) hour which is:

- a. Half as dark or darker in shade as No. 1 on the Ringelmann Chart; or
- b. 10% opacity. [District Rule 2.3, District Rule 2.42, §110 & §302, and 40 CFR Part 60.72(a)(2)] *(ATC Condition 6 / Title V Permit Condition II.B.31)*

The Permit Holder shall not discharge into the atmosphere from any single source of emissions whatsoever, any air contaminant for a period or periods aggregating more than three (3) minutes in any one (1) hour which is:

- a. As dark or darker in shade than No. 1 on the Ringelmann Chart; or
- b. Greater than 20% opacity. [District Rule 2.3 and District Rule 3.4] *(ATC Condition 7 / Title V Permit Condition II.B.32)*

District Rule 2.5-Nuisance

The rule applies to all emission units at the stationary source. The version of the rule used in this evaluation is the rule adopted on October 1, 1971, and is part of the California SIP. The source is currently in compliance with the requirements of the rule.

It should be noted that this permit condition is Federally enforceable because it derives from District Rule 2.5 (Nuisance) that is currently part of the California SIP. The District is taking steps to remove Rule 2.5 from the SIP. Once the U.S. Environmental Protection Agency (EPA) has taken final action to remove District Rule 2.5 from the SIP, this permit condition will become state-enforceable only.

Rule Requirement #1 (Facility Wide Permit Condition):

- The Permit Holder shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health, or safety of any such persons or the public or which cause to have a natural tendency to cause injury or damage to business or property. [District Rule 2.5] *(Title V Permit Condition III.B.1)*

District Rule 2.16-Fuel Burning Heat or Power Generators

The rule applies to all fuel burning heat or power generating units operating at the stationary source. The version of the rule

used in this evaluation is the rule adopted on October 1, 1971, and is part of the California SIP. The source is currently in compliance with the requirements of the rule.

Per Section (c)(1) of Rule 2.16, "fuel burning equipment serving primarily as air pollution control equipment by using combustion to destroy air contaminants shall be exempt from the provisions of (the) rule." Therefore, the nitric acid plant's permitted non-selective catalytic reduction system ("NOx Decomposer") under P-37-82(a3) is exempt from the mass emission limits of Rule 2.16 since it consumes natural gas in order to control NOx emissions from the nitric acid plant.

District Rule 2.17-Circumvention

The rule is applicable to all emission units at the facility. The version of the rule used in this evaluation is the rule adopted on October 1, 1971, and is part of the California SIP. The source is currently in compliance with the requirements of the rule.

Rule Requirement #1 (Facility Wide Permit Condition)

The Permit Holder shall not build, erect, install or use any article, machine, equipment, or other contrivance, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of Division 26, Part 3 and Part 4 of the Health and Safety Code of the State of California or District Rules or Regulations. [District Rule 2.17] (*Title V Permit Condition III.C.1*)

District Rule 2.42-Nitric Acid Production

The facility is subject to the rule (adopted on 05/13/2009 and approved into the SIP in 07/09/2009). As demonstrated in the Statement of Basis, the District has streamlined the applicable requirements of this rule with the requirements of 40 CFR Part G (Standards of Performance for Nitric Acid Plants).

Rule Requirements #1 & #2 (Permit Condition) - Facility NOx and Visible Emissions

Section 110 of the rule requires: The provisions of Section 301 and 302 shall not apply to any nitric acid production facilities during periods of equipment startup or shutdown, provided that the frequency and duration of these periods and the associated emissions are minimized to the maximum extent practicable.

Section 301 of the rule requires: The owner or operator of an affected facility shall not operate such equipment which results in measured NOx (expressed as NO₂) emissions exceeding 3.0 lb/ton HNO₃ produced (being expressed as 100% nitric acid by mass) averaged over a three (3) hour rolling period.

Streamlining Demonstration: The requirements of the rule can be streamlined with the emission standards of 40 CFR Part 60 - Subpart G.

Streamlined Permit Condition:

Except for qualifying periods of equipment startup or shutdown, the nitrogen oxides (NO_x) emissions (expressed as NO₂) shall not exceed 3.0 pound per ton (lb/ton) nitric acid (HNO₃) produced (expressed as 100% nitric acid by mass) averaged over a three (3) hour rolling period. [District Rule 2.42, §110 & §301, and 40 CFR Part 60.72(a)(1)] (*ATC Condition 5 / Title V Permit Condition II.A.13*)

Rule Requirement #3 (Permit Condition) - Startup and Shutdown Periods

The Permit Holder shall minimize to the maximum extent practicable the frequency, duration, and emissions of all qualifying periods of startup and shutdown. Each qualifying period shall not exceed three (3) hours and shall be determined as follows:

a. Startup Period - The period of time between when feedstock is introduced into the nitric acid production process and the equipment achieves the proper operating temperature and stable operating conditions. The period will exclude the time required to preheat the control equipment.

b. Shutdown Period - The period of time after feedstock is no longer introduced in a nitric acid production unit. The period will exclude the time required to cool down the control equipment. [District Rule 2.42, §110, §206 & §207] (*ATC Condition 8 / Title V Permit Condition II.B.26*)

Rule Requirement #4 (Permit Condition) - CEMS for NOx

Section 303 of the rule requires: The owner or operator of an affected facility shall install, calibrate, maintain, and operate a CEMS for measuring NOx emission concentrations.

Streamlining Demonstration: The requirements of the rule can be streamlined with the provisions of 40 CFR Part 60 - Subpart G.

Streamlined Permit Condition:

The Permit Holder shall install, calibrate, maintain, and operate a CEMS for measuring NOx emission concentrations. [District Rule 2.42, §303 and 40 CFR Part 60.73(a)] (*ATC Condition 13 / Title V Permit Condition II.C.9*)

Rule Requirement #5 (Permit Condition) - NOx CEMS Compliance

Section 303.1 of the rule requires: The CEMS shall comply with the requirements specified in 40 Code of Federal Regulations Part 60, Appendix B, Specification 2 or other alternative methods approved by the U.S. EPA and the District.

Streamlining Demonstration: The requirements of the rule can be streamlined with the provisions of 40 CFR Part 60 - Subpart G.

Streamlined Permit Condition:

The NOx CEMS shall comply with the requirements specified in 40 CFR Part 60 - Appendix B, Specification 2 or other alternative methods approved by the U.S. EPA and the District. [District Rule 2.42, §303.1 and 40 CFR Part 60.73(a)] (*ATC Condition 15 / Title V Permit Condition II.C.11*)

Rule Requirement #6 (Permit Condition) - NOx CEMS Calibration

Section 303.2 of the rule requires: The CEMS shall be calibrated and checked using a NO2 span gas with a value between 450 and 500 ppmv, or other alternative methods approved by the U.S. EPA and the District.

Streamlining Demonstration: The requirements of the rule can be streamlined with the provisions of 40 CFR Part 60 - Subpart G.

Streamlined Permit Condition:

The NOx CEMS shall be calibrated and checked using a nitrogen oxide (NO) span gas with a value between 450 and 500 ppmv, or other alternative methods approved by the U.S. EPA and the District. [District Rule 2.42, §303.2 and 40 CFR Part 60.73(a)] (*ATC Condition 16 / Title V Permit Condition II.C.12*)

Rule Requirement #7 (Permit Condition) - Annual Source Testing

Section 304 of the rule requires: All facilities subject to the provisions of this Rule shall perform a source test to verify compliance with the requirements of Section 301 and 302 at least once every twelve (12) continuous calendar months, in accordance with a District-approved protocol and the test methods listed in Section 600 of this Rule.

Streamlining Demonstration: The requirements of the rule can be streamlined with the provisions of Rule 3.4.

Streamlined Permit Condition:

The Permit Holder shall perform a source test at least once every twelve (12) consecutive calendar months to demonstrate compliance with the following items:

- a. CO concentration (ppmvd @ 15% O₂);
- b. CO mass emissions (lb/day);
- c. NOx concentration (ppmvd @ 15% O₂); and
- c. NOx mass emissions (lb/day and lb/ton nitric acid produced)
- d. Opacity (%). [District Rule 2.42, §304 and District Rule 3.4, §409] (*ATC Condition 28 / Title V Permit Condition II.C.22 / U.S. EPA Letter Item 5*)

Rule Requirement #8 (Permit Condition) - Operation and Maintenance Plan

The Permit Holder shall comply with the procedures and schedules contained in the most recent Operation and Maintenance (O&M) Plan submitted to, and approved by, the District. [District Rule 2.42, §402 and District Rule 3.4, §409] (*ATC Condition 10 / Title V Permit Condition II.B.28*)

Note: The facility is currently operating under an approved Operating and Maintenance Plan (submitted on 06/16/2009, approved on 07/20/2010).

Rule Requirement #9 (Permit Condition) - Record Retention

Section 501 of the rule requires: All records required by this Rule shall be maintained on-site for a period of five (5) years and made available to the APCO upon request.

Streamlining Demonstration: The requirements of the rule can be streamlined with the provisions of 40 CFR Part 60.7(f) (General Provisions - Notification and Recordkeeping).

Streamlined Permit Condition:

The Permit Holder shall maintain all records required by this permit on-site for a period of five (5) years from the date of entry and make them available to the APCO upon request. [District Rule 2.42, §501 and 40 CFR Part 60.7(f)] (ATC Condition 41 / Title V Permit Condition II.D.11 / U.S. EPA Letter Item 6)

Rule Requirement #10 (Permit Condition) - Recordkeeping

Section 502 of the rule requires: The owner or operator of an affected facility shall maintain an operating log for the facility that includes, on a daily basis: (1) the actual startup and shutdown time; (2) total hours of operation, amount of nitric acid produced (expressed as 100% acid strength); (3) operating system parameters; (4) the exhaust gas NOx concentrations in parts per million volume (ppmv) on a dry basis; and (5) the exhaust gas NOx emission rate in lb/ton HNO3 per three (3) hour rolling average.

Streamlining Demonstration: The requirements of the rule can be streamlined with the provisions of 40 CFR Part 60 - Subpart G.

Streamlined Permit Condition:

The Permit Holder shall maintain an operating log for the facility that includes, on a daily basis:

- a. The actual startup and shutdown time;
- b. Total hours of operation, amount of nitric acid (HNO3) produced (expressed as 100% acid strength);
- c. Operating system parameters;
- d. The exhaust gas NOx concentrations in parts per million volume (ppmv) on a dry basis; and
- e. The exhaust gas NOx emission rate in lb/ton HNO3 per three (3) hour rolling average. [District Rule 2.42, §502 and 40 CFR Part 60.73(c)] (ATC Condition 35 / Title V Permit Condition II.D.8)

Rule Requirements #11 & #12 (Permit Condition) - Source Test Methods

Section 601 of the rule requires: NOx emission concentrations shall be determined in accordance with U.S. EPA Method 7, or alternative methods approved by the U.S. EPA and the District.

Section 604 of the rule requires: Visible emission evaluations shall be determined in accordance with U.S. EPA Method 9, or alternative methods approved by the U.S. EPA and the District.

Streamlining Demonstration: The requirements of the rule can be streamlined with the provisions of Rule 3.4 and 40 CFR Part 60 - Subpart G.

Streamlined Permit Condition:

The Permit Holder shall conduct the following test methods (or alternative test methods approved by the U.S. EPA and the District) to measure the required pollutant emissions during any emission testing event. If the source wishes to use an alternative methodology a complete and detailed description of the method must be submitted to the District for written approval no less than thirty (30) days prior to the performance evaluation.

- a. CO - U.S. EPA Method 10;
- b. NOx - U.S. EPA Method 7;
- c. Volumetric Flow rate - U.S. EPA Method 2; and
- d. Visible Emission Evaluation - U.S. EPA Method 9. [District Rule 2.42, §601 & §604, District Rule 3.4, §409, and 40 CFR Part 60.74(b)(2) and (b)(3)] (ATC Condition 30 / Title V Permit Condition II.C.24 / U.S. EPA Letter Item 5)

Rule Requirements #13 & #14 (Permit Condition) - NOx Concentration and Conversion Factor

Section 602 of the rule requires: The NOx emission rate used to demonstrate compliance with the NOx compliance limit of this

Rule shall be calculated using the equation contained in 40 CFR Part 60.74(b)(1).

Section 603 of the rule requires: The owner or operator of an affected facility shall calculate an emission conversion factor for the purpose of converting the NO_x CEMS data (in ppmv) into the units of the applicable NO_x compliance limit (in lb/ton) using the data from the most recent source test submitted to, and approved by, the District.

Streamlining Demonstration: The requirements of the rule can be streamlined with the provisions of Rule 3.4.

Streamlined Permit Condition:

The Permit Holder shall determine a NO_x conversion factor used to convert the NO_x CEMS data (in ppmv) into the applicable NO_x compliance limit units (in lb/ton) using the data from the most recent source test submitted to, and approved by, the District. The NO_x emission conversion factor shall:

- a. Be calculated using the equation contained in 40 CFR Part 60.74(b)(1);
- b. Be calculated using the CEMS and source test data pertaining to the same operating time frame;
- c. Be calculated by dividing the source test data averages (in lb/ton) by the corresponding CEMS data averages (in ppmv) to obtain a conversion factor expressed in the units of lb/ton per ppmv; and
- d. Be reestablished during any source test or RATA performed. [District Rule 2.42, §602 & §603, 40 CFR Part 60.73(b), and 60.74(b)(1)] (*ATC Condition 33 / Title V Permit Condition II.C.27*)

District Rule 3.1-General Permit Requirements

The source is currently in compliance with the rule. The version of the rule used in this evaluation is the rule adopted on February 23, 1994, and is part of the California SIP. For reference, Page 67068 of the Federal Register, Vol. 69, No. 220 documents that the SIP approved version of Rule 3.1 was "deleted without replacement Rule 3.1, paragraphs 403 and 406." No part of the proposed Title V permit has references to either Section 403 (dealing with Denial of Applications) or Section 406 (dealing with Appeals).

Requirement #1 (Facility Wide Permit Condition) - Authority to Construct

No person shall build, erect, alter, or replace any facility, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants, without first obtaining an authorization to construct from the APCO as specified in Section 401 of District Rule 3.1. [District Rule 3.1, §301.1] (*Title V Permit Condition III.D.1*)

Requirements #2 & 3 (Facility Wide Permit Conditions) - Permit to Operate

No person shall operate any facility, article, machine, equipment, or other contrivance, for which an authorization to construct is required by District Rules and Regulations without first obtaining a written permit from the APCO. [District Rule 3.1, §302.1] (*Title V Permit Condition III.D.2*)

No person shall operate any facility, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate or reduce or control the issuance of air contaminants, without obtaining a permit from the APCO or the Hearing Board. [District Rule 3.1, §302.2] (*Title V Permit Condition III.D.3*)

Rule Requirement #4 (Facility Wide Permit Condition) - Transfer of Permits to Operate

The Permits to Operate shall not be transferable, by operation of law or otherwise, from one location to another or from one piece of equipment to another. It shall be the transferee's responsibility to inform the District on assumption of ownership or operating control of any item under a Permit to Operate from the District and for which a Permit to Operate will be required. For any such transfer as hereinabove described, said transferee shall submit an application for authorization in accordance with applicable District Rules. [District Rule 3.1, §304] (*Title V Permit Condition III.D.4*)

Rule Requirement #5 (Facility Wide Permit Condition) - Renewal of Permits to Operate

All Permits to Operate shall be renewable annually on the individual permit's anniversary date, commencing one year after the date of issuance. The Permit Holder shall pay a fee for the annual permit renewal. If the annual renewal fee is not paid by the specified due date, the District shall assess a penalty of not more than 50% of the fee due. Non-payment of renewal fees is grounds for permit cancellation. [District Rule 3.1, §305 and District Rule 4.1, §303 and §401] (*Title V Permit Condition III.D.5*)

Rule Requirement #6 (Facility Wide Permit Condition) - Conditional Approval of Permits to Operate

Commencing work or operation under any Permits to Operate shall be deemed acceptance of all of the conditions so specified. [District Rule 3.1, §402] (*Title V Permit Condition III.D.6*)

Rule Requirement #7 (Facility Wide Permit Condition) - Permit to Operate Information

The Permit Holder shall submit an annual throughput/production report at the end of each calendar year for each Permit to Operate. These reports are due no later than March 31 for the previous year. This report must include actual operating hours and actual amounts of materials processed (for materials that have process limits listed on the Permit to Operate). Each type of material and each type of process must be listed separately. [District Rule 3.1, §405.1] (*Title V Permit Condition III.D.7*)

Requirement #8 (Facility Wide Permit Condition) - Breakdown, Malfunction, or Upset Notification

The owner or operator of any facility, article, machine, equipment, or other contrivance for which a permit to operate is in effect shall notify the District office whenever a breakdown, malfunction, or operational upset condition exists which would tend to increase emissions of air pollutants or whenever any operating condition contrary to any provision of the permit to operate exists. Such notice shall be given to the District no later than four hours after occurrence during regular workday hours or no later than two hours of the District workday following an occurrence not during regular District workday hours. The notice shall provide the District information as to causes and corrective action being taken, with a schedule for return to required operating conditions. [District Rule 3.1, §405.3] (*Title V Permit Condition III.D.8*)

Requirement #9 (Facility Wide Permit Condition) - Excess Emission Notification

The Permit Holder shall report all excess emissions to the District within ninety-six (96) hours of the occurrence of excess emissions. [District Rule 3.1, §405.4] (*ATC Condition 40 / Title V Permit Condition II.D.10*)

Rule Requirement #10 (Facility Wide Permit Condition) - Posting of Permits to Operate

The Permit Holder shall firmly affix all Permits to Operate, an approved facsimile, or other approved identification bearing the permit number upon the facility, article, machine, equipment, or other contrivance in such a manner as to be clearly visible and accessible. In the event that the facility, article, machine, equipment, or other contrivance is so constructed or operated that the Permit to Operate cannot be so placed, the Permit to Operate shall be mounted so as to be clearly visible in an accessible place within twenty (25) feet of the facility, article, machine, equipment, or other contrivance, or maintained readily available at all times on the operating premises. [District Rule 3.1, §408] (*Title V Permit Condition III.D.9*)

District Rule 3.4-New Source Review

This rule applies to all new stationary sources and emissions units and all modifications to existing stationary sources and emissions units which are subject to Rule 3.1 (General Permit Requirements) and which, after construction or modification, emit or may emit any affected pollutants. This rule shall not apply to prescribed burning of forest, agriculture or range land, road construction or any other non-point source common to timber harvesting or agricultural practices. The purpose of this rule is to provide for the review of new and modified stationary air pollution sources and to provide mechanisms, including emission offsets, by which authorities to construct such sources may be granted without interfering with the attainment or maintenance of ambient air quality standards.

Rule Requirement #1 (Permit Condition) - Permitted Emission Limits

The CO emissions from the nitric acid production plant operating under P-37-82(a4) shall not exceed 1,000.0 lb/day, 90,000 lb/1st calendar quarter, 91,000 lb/2nd calendar quarter, 92,000 lb/3rd calendar quarter, 92,000 lb/4th calendar quarter, and 168.00 tons/year. [District Rule 3.4, §409/C-12-82] (*Title V Permit Condition II.A.11*)

The NOx emissions from the nitric acid production plant operating under P-37-82(a4) shall not exceed 250.0 lb/day, 22,500 lb/1st calendar quarter, 22,750 lb/2nd calendar quarter, 23,000 lb/3rd calendar quarter, 23,000 lb/4th calendar quarter, and 42.00 tons/year. [District Rule 3.4, §409/C-12-82] (*Title V Permit Condition II.A.12*)

The mass emissions from the nitric acid production facility (including periods of start-up and shutdown) shall not exceed the daily, quarterly, or annual values listed in the Permitted Emission Limits table of P-37-82(a4). [District Rule 3.4, §409.2(b)] (*ATC Condition 4 / Title V Permit Condition II.B.4*)

Rule Requirement #2 (Permit Condition) - Sampling and Testing Facilities

The Permit Holder shall install and maintain such facilities as are necessary for sampling and testing purposes. The number,

size, and location of sampling ports shall be in accordance with Air Resources Board Test Method 1 or EPA Test Methods. The location and access to the sampling platform shall be in accordance with the General Industry Safety Orders of the State of California. [District Rule 3.4, §409] (ATC Condition 11 / Title V Permit Condition II.B.29)

Rule Requirement #3 - #4 (Permit Condition) - Continuous Emission Monitoring

The Permit Holder shall install, calibrate, maintain, and operate a continuous emission monitoring system (CEMS) for measuring carbon monoxide (CO) emission concentrations. [District Rule 3.4, §409] (ATC Condition 12 / Title V Permit Condition II.C.8)

The CO CEMS shall comply with the requirements specified in 40 CFR Part 60 - Appendix B, Specification 4 or other alternative methods approved by the U.S. EPA and the District. [District Rule 3.4, §409] (ATC Condition 14 / Title V Permit Condition II.C.10)

Rule Requirement #5 (Permit Condition) - Emission Testing Event Notification

The District must be notified prior to any emissions testing event (source test or RATA), and a protocol must be submitted for approval thirty (30) days prior to testing. The results of an emissions testing event shall be submitted to the District within sixty (60) days of the test date. The protocol and report shall be mailed to the attention of the Supervising Air Quality Engineer. [District Rule 3.4, §409] (ATC Condition 31 / Title V Permit Condition II.C.25)

Rule Requirement #6 (Permit Condition) - CO Conversion Factor

The Permit Holder shall establish a conversion factor for the purpose of converting CO monitoring data (in ppmv) into the applicable CO compliance limit units (lb/day). [District Rule 3.4, §409] (ATC Condition 32 / Title V Permit Condition II.C.26)

Rule Requirement #7 (Permit Condition) - Monthly CO and NOx Emission Report

The Permit Holder shall submit a monthly CO and NOx emission report to the District within fifteen (15) days of the end of the month. The report shall provide average daily CO and NOx concentrations (ppm), daily CO and NOx emissions in units of the District standard (lbs/day), and aggregate CO and NOx emissions in tons. [District Rule 3.4, §409] (ATC Condition 37 / Title V Permit Condition II.D4)

Rule Requirement #8 (Permit Condition) - Observation of Visible Emissions

The Permit Holder shall perform a weekly visible emissions evaluation of the nitric acid production plant using U.S. EPA Method 22. Each evaluation shall consist of at least six (6) continuous minutes and shall be performed while the plant is in operation. Plant personnel performing the observations may be certified, previously certified, or non-certified in U.S. EPA Method 9, but must be thoroughly knowledgeable of the "Visible Emission Field Manual Method 9 and Method 22." [District Rule 3.4, §409] (ATC Condition 26 / Title V Permit Condition II.C.28 / U.S. EPA Letter Item 1)

Rule Requirement #9 (Permit Condition) - Observation of Visible Emissions

If visible emissions are observed from the nitric acid plant, the Permit Holder shall:

- a. Immediately take correction action to minimize or eliminate the visible emissions;
- b. Immediately conduct an U.S. EPA Method 9 test; and
- c. Conduct an U.S. EPA Method 9 test daily until the opacity problem is successfully rectified. [District Rule 3.4, §409] (ATC Condition 27 / Title V Permit Condition II.C.29 / U.S. EPA Letter Item 2)

Rule Requirement #10 (Permit Condition) - Visible Emission Observation Forms

The Permit Holder shall record all U.S. EPA Method 9 and/or Method 22 observations using a form similar to Appendix A of the "Visible Emissions Field Manual Method 9 and 22." [District Rule 3.4, §409] (ATC Condition 36 / Title V Permit Condition II.D.9 / U.S. EPA Letter Items 3 & 4)

PROPOSED EMISSION SUMMARY FOR NEW OR MODIFIED PERMIT

	<u>Daily</u>	<u>Yearly</u>	
VOC	0.0 lb	0.00 tons	Use for annual billing
CO	1,000.0 lb	168.00 tons	Use for annual billing
NOx	250.0 lb	42.00 tons	Use for annual billing
SOx	0.0 lb	0.00 tons	Use for annual billing

PM10

0.0 lb

0.00 tons

Use for annual billing

	<u>Quarterly</u>			
	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>4th</u>
VOC (lb)	0	0	0	0
CO (lb)	90,000	91,000	92,000	92,000
NOx (lb)	22,500	22,750	23,000	23,000
SOx (lb)	0	0	0	0
PM10 (lb)	0	0	0	0

Previous quarterly potential to emit for modified permit *

	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>4th</u>
VOC (lb)	0	0	0	0
CO (lb)	90,000	91,000	92,000	92,000
NOx (lb)	22,500	22,750	23,000	23,000
SOx (lb)	0	0	0	0
PM10 (lb)	0	0	0	0

* Emissions from PTO P-37-82(a3) (issued 11/29/2011).

Historic potential emissions for modified permit *

	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>4th</u>
VOC (lb)	0	0	0	0
CO (lb)	90,000	91,000	92,000	92,000
NOx (lb)	22,500	22,750	23,000	23,000
SOx (lb)	0	0	0	0
PM10 (lb)	0	0	0	0

* The following historic potential emissions (HPE) calculation will be performed separately for CO and NOx since the existing facility is equipped with a CEMS for both pollutants.

CO Determination: The highest throughput for this permit in the past five (5) operating years was 141.2 tons of CO over the four (4) consecutive calendar quarters from 2010 Quarter #3 to 2011 Quarter #2 (70,503 tons/3rd quarter of 2010, 71,345 tons/4th quarter of 2010, 66,084 tons/1st quarter of 2011, and 74,416 tons/2nd quarter of 2011). This amount was 84.0% of permitted throughput (168.0 tons). Because the emissions are over 80% in at least one "year" out of the last five, the HPE equal the previous PTE.

NOx Determination: The reported NOx emissions for this permit in 2008 was 34.16 tons, which was 81.3% of permitted emission limit. Because the emissions are over 80% in at least one year out of the last five, the HPE equal the previous PTE.

<u>Pollutant</u>	<u>Trigger</u> (lb/day)	<u>BACT</u>	<u>Quarterly Increase</u>	<u>BACT</u>
		<u>Proposed</u> (lb/day)		
VOC	10	0	No	No
CO	250	1,000	No	No
NOx	10	250	No	No
SOx	80	0	No	No
PM10	80	0	No	No

OFFSETS

Quarterly permitted emissions for other permits at the stationary source*

	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>4th</u>
VOC (lb)	36	37	37	37
CO (lb)	3,219	3,249	3,280	3,280
NOx (lb)	7,587	7,594	7,600	7,600
SOx (lb)	22	23	23	23
PM10 (lb)	11,828	11,852	11,876	11,876

* Emissions from other stationary units excluding the modified unit of C-12-82 (see Quarterly PTE worksheet dated 07/13/2011).

Quarterly permitted emissions for the stationary source including proposed emissions

	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>4th</u>
VOC (lb)	36	37	37	37
CO (lb)	93,219	94,249	95,280	95,280
NOx (lb)	30,087	30,344	30,600	30,600
SOx (lb)	22	23	23	23
PM10 (lb)	11,828	11,852	11,876	11,876

Offset triggers

	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>4th</u>
VOC (lb)	7,500	7,500	7,500	7,500
CO (lb)	49,500	49,500	49,500	49,500
NOx (lb)	7,500	7,500	7,500	7,500
SOx (lb)	13,650	13,650	13,650	13,650
PM10 (lb)	13,650	13,650	13,650	13,650

Quantity of offsets required

	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>4th</u>
VOC (lb)	0	0	0	0
CO (lb)	0	0	0	0
NOx (lb)	0	0	0	0
SOx (lb)	0	0	0	0
PM10 (lb)	0	0	0	0

MAJOR MODIFICATION

Facility Total Potential to Emit *

0.19 TPY VOC
 174.78 TPY CO
 58.44 TPY NOx
 0.06 TPY SOx
 8.44 TPY PM10

Major Source Thresholds

25 TPY VOC
 100 TPY CO
 25 TPY NOx
 100 TPY SOx
 100 TPY PM10

* Emissions from Quarterly PTE worksheet dated 07/13/2011.

Last five year emission aggregate *

0.00 TPY VOC
 0.00 TPY CO
 0.00 TPY NOx
 0.00 TPY SOx
 3.47 TPY PM10

Major Modification Thresholds

25 TPY VOC
 100 TPY CO
 25 TPY NOx
 40 TPY SOx
 25 TPY PM10

* Emissions from Five-Year Aggregate worksheet dated 07/13/2011.

Result: The proposed modification is not a major modification

PUBLIC NOTICE

"Increase in historic potential to emit"

0 lb VOC/quarter
 0 lb CO/quarter
 0 lb NOx/quarter
 0 lb SOx/quarter
 0 lb PM10/quarter

Exemption level for notification

7,500 lb VOC/quarter
 49,500 lb CO/quarter
 7,500 lb NOx/quarter
 13,650 lb SOx/quarter
 13,650 lb PM10/quarter

Result: Public notice is not required

District Rule 3.8-Federal Operating Permits

This rule implements the requirements of Title V of the Federal Clean Air Act (CAA) as amended in 1990 for permits to operate. Title V provides for the establishment of operating permit programs for sources which emit regulated air pollutants, including attainment and non attainment pollutants at or above the major source levels. As requested by the source, ATC C-12-82 will be processed under the Enhanced New Source Review provisions of District Rule 3.4, Section 404 (see application). This emission evaluation will serve as the Statement of Basis documenting the proposed modifications to the federal operating permit.

Rule Requirement #1 - Minor Permit Modification

The District has determined that the proposed modifications to the permitted equipment and permit conditions are considered a minor modification since they do not meet the definition of either significant modifications (Section 222) or administrative modifications (Section 203). Specifically, the changes are not considered significant modifications since the proposed modifications to the federally-enforceable conditions do not involve any modifications that result in: the greater than de minimis increase in actual emissions of hazardous air pollutants; significantly changes monitoring conditions; provides relaxation of reporting or recordkeeping conditions; involves a permit condition that allows the source to avoid an applicable federal requirement; involves a case-by-case determination of any emission standard; or involves a source-specific determination for ambient impacts or visibility analysis. The proposed modifications do not qualify as administrative permit amendments since the amendments do not correct typographical errors or an administrative change; require more frequent monitoring or reporting conditions; transfer ownership or operational control of the facility; or incorporate into the federal permit the conditions of a federally-enforceable preconstruction permit.

Rule Requirement #2 - Notification and Review of Proposed Decision

Per the requirements of Section 409.2, the District's proposed decision will be noticed to the U.S. EPA and CARB within five (5) days of issuing the ATC. Per convention, the District will provide both agencies copies of the emission evaluation and proposed permits.

Rule Requirement #3 (Facility Wide Permit Condition) - Right of Entry

The permit shall require that the source allow the entry of the District, ARB, or U.S. EPA officials for the purpose of inspection and sampling, including:

- a. Inspection of the stationary source, including equipment, work practices, operations, and emissions-related activity;
- b. Inspection and duplication of records required by the permit to operate; and
- c. Source sampling or other monitoring activities. [District Rule 3.8, §302.10] (*Title V Condition IV.A.1*)

Rule Requirements #4 through #9 (Facility Wide Permit Conditions) - Compliance with Permit Conditions

The Permit Holder shall comply with all Title V permit conditions. [District Rule 3.8, §302.11(a)] (*Title V Condition IV.B.1*)

The permit does not convey property rights or exclusive privilege of any sort. [District Rule 3.8, §302.11(b)] (*Title V Condition IV.B.2*)

Non-compliance with any permit condition is grounds for permit termination, revocation and reissuance, modification, enforcement action, or denial of permit renewal. [District Rule 3.8, §302.11(c)] (*Title V Condition IV.B.3*)

The Permit Holder shall not use the "need to halt or reduce a permitted activity in order to maintain compliance" as a defense for non-compliance with any permit condition. [District Rule 3.8, §302.11(d)] (*Title V Condition IV.B.4*)

A pending permit action or notification of anticipated non-compliance does not stay any permit condition. [District Rule 3.8, §302.11(e)] (*Title V Condition IV.B.5*)

Within a reasonable time period, the Permit Holder shall furnish any information requested by the APCO, in writing, for the purpose of determining:

- a. Compliance with the permit; or
- b. Whether or not cause exists for a permit or enforcement action. [District Rule 3.8, §302.11(f)] (*Title V Condition IV.B.6*)

Rule Requirements #10 (Facility Wide Permit Conditions) - Emergency Provisions

Within two (2) weeks of an emergency event, the owner or operator shall submit to the District a properly signed contemporaneous log or other relevant evidence demonstrating that:

- a. An emergency occurred;
- b. The Permit Holder can identify the cause(s) of the emergency;
- c. The facility was being properly operated at the time of the emergency;
- d. All steps were taken to minimize the emissions resulting from the emergency;
- e. Within two (2) working days of the emergency event, the Permit Holder provided the District with a description of the emergency and any mitigating or corrective actions taken; and

In any enforcement proceeding, the Permit Holder has the burden of proof for establishing that an emergency occurred. [District Rule 3.8, §302.12(b)] (*Title V Condition IV.C.1*)

Rule Requirement #11 (Facility Wide Permit Condition) - Severability

If any provision, clause, sentence, paragraph, section or part of these conditions for any reason is judged to be unconstitutional or invalid, such judgement shall not affect or invalidate the remainder of these conditions. [District Rule 3.8, §302.13] (*Title V Condition IV.D.1*)

Rule Requirements #12 through #14 (Facility Wide Permit Conditions) - Compliance Certification

The compliance certification shall identify the basis for each permit term or condition (e.g., specify the emissions limitation, standard, or work practice) and a means of monitoring compliance with the term or condition consistent with Sections 302.5, 302.6, and 302.7 of Rule 3.8. [District Rule 3.8, §302.14(b)] (*Title V Condition IV.E.2*)

The compliance certification shall include a statement of the compliance status, whether compliance was continuous or intermittent, and method(s) used to determine compliance for the current time period and over the entire reporting period. [District Rule 3.8, §302.14(c)] (*Title V Condition IV.E.3*)

The compliance certification shall include any additional inspection, monitoring, or entry requirement that may be promulgated pursuant to Sections 114(a) and 504(b) of the Federal CAA. [District Rule 3.8, §302.14(d)] (*Title V Condition IV.E.4*)

Rule Requirement #15 (Facility Wide Permit Condition) - Permit Life

The Title V permit shall expire five (5) years from the date of issuance. Title V permit expiration terminates the stationary source's right to operate unless a timely and complete Title V permit application for renewal has been submitted. [District Rule 3.8, §302.15] (*Title V Condition IV.F.1*)

Rule Requirement #16 (Facility Wide Permit Condition) - Payment of Fees

An owner or operator shall pay the appropriate Title V permit fees on schedule. If fees are not paid on schedule, the permit is forfeited. Operation without a permit subjects the source to potential enforcement action by the District and the U.S. EPA pursuant to Section 502(a) of the CAA. [District Rule 3.8, §302.16] (*Title V Condition IV.G.1*)

Rule Requirement #17 (Facility Wide Permit Condition) - Permit Revision Exemption

No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit. [District Rule 3.8, §302.22] (*Title V Condition IV.H.1*)

Rule Requirements #18 through #20 (Facility Wide Permit Conditions) - Application Requirements

An owner or operator shall submit a standard District application for renewal of the Title V permit, no earlier than 18 months and no later than six (6) months before the expiration date of the current permit to operate. [District Rule 3.8, §402.2] (*Title V Condition IV.I.1*)

An owner or operator shall submit a standard District application for each emissions unit affected by a proposed permit revision that qualifies as a significant Title V permit modification. The application shall be submitted after obtaining any required preconstruction permits. Upon request by the APCO, the owner or operator shall submit copies of the latest preconstruction permit for each affected emissions unit. The emissions unit(s) shall not commence operation until the APCO approves the permit revision. [District Rule 3.8, §402.3] (*Title V Condition IV.I.2*)

An owner or operator shall submit a standard District application for each emissions unit affected by the proposed permit revision that qualifies as a minor permit modification. The application shall be submitted after obtaining any required preconstruction permits. The emissions unit(s) shall not commence operation until the APCO approves the permit revision. In

the application, the owner or operator shall include the following:

- a. A description of the proposed permit revision, any change in emissions, and additional applicable federal requirements that will apply;
- b. Proposed permit terms and conditions; and
- c. A certification by a responsible official that the permit revision meets criteria for use of minor permit modification procedures and a request that such procedures be used. [District Rule 3.8, §402.4] (*Title V Condition IV.I.3*)

Rule Requirement #21 (Facility Wide Permit Condition) - Permit Reopening for Cause

Circumstances that are cause for reopening and revision of a permit include, but are not limited to, the following:

- a. The need to correct a material mistake or inaccurate statement;
- b. The need to revise or revoke a permit to operate to assure compliance with applicable federal requirements;
- c. The need to incorporate any new, revised, or additional applicable federal requirements, if the remaining authorized life of the permit is three (3) years or greater, no later than 18 months after the promulgation of such requirement (where less than three (3) years remain in the authorized life of the permit, the APCO shall incorporate the requirements into the permit to operate upon renewal); or
- d. Additional requirements promulgated pursuant to Title IV as they become applicable to any acid rain unit governed by the permit. [District Rule 3.8, §413.1] (*Title V Condition IV.J.1*)

Rule Requirement #22 (Facility Wide Permit Condition) - Monitoring, Testing and Analysis

The affected equipment is not subject to additional periodic monitoring or testing requirements. Therefore, no additional monitoring, testing, and analysis conditions are required.

Permit Condition

No permit condition is required.

Rule Requirements #23 and #24 (Facility Wide Permit Condition) - Recordkeeping

The Permit Holder shall record maintenance of all monitoring and support information required by any applicable federal requirement, including:

- a. Date, place, and time of sampling;
- b. Operating conditions at the time of sampling;
- c. Date, place, and method of analysis; and
- d. Results of the analysis. [District Rule 3.8, §302.6(a)] (*Title V Condition IV.K.1*)

The Permit Holder shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of sample collection, measurement, report, or application. [District Rule 3.8, §302.6(b)] (*Title V Condition IV.K.2*)

Rule Requirements #25 through #27 (Facility Wide Permit Condition) - Reporting Requirements

Any deviation from permit requirements, including that attributable to upset conditions (as defined in the permit), shall be promptly reported to the APCO. For the purpose of this condition prompt means as soon as reasonably possible, but no later than 10 days after detection. [District Rule 3.8, §302.7(a)] (*Title V Condition IV.L.1*)

All reports of deviation from permit requirements shall include the probable cause of the deviation and any preventive or corrective action taken. [District Rule 3.8, §302.7(c)] (*Title V Condition IV.L.3*)

Each monitoring report shall be accompanied by a written statement from the responsible official that certifies the truth, accuracy, and completeness of the report. [District Rule 3.8, §302.7(e)] (*Title V Condition IV.L.4*)

Rule Requirement #28 (Facility Wide Permit Condition) - Reporting Requirements

Section 302.14 requires that every twelve (12) months the Responsible Official submit an accurate and complete compliance certification to the U.S. EPA and the District.

Subsuming Demonstration: The requirements of the rule have been subsumed with the requirements of Rule 3.4 which establish explicit certification periods and submittal deadlines.

Subsuming Permit Condition:

The responsible official shall submit a compliance certification to the U.S. EPA and the APCO every twelve (12) months unless required more frequently by an applicable requirement. The twelve (12) month period shall be January 1 through December 31, and shall be submitted by January 30 following the reporting period, unless otherwise approved in writing by the District. All compliance reports and other documents required to be submitted to the District by the responsible official shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. [District Rule 3.4, §409 and District Rule 3.8, §302.14(a)] (Title V Condition IV.E.1)

Rule Requirement #29 (Facility Wide Permit Condition) - Reporting Requirements

The SIP approved rule requires that every six (6) months the Responsible Official submit an accurate and complete semi-annual monitoring report to the U.S. EPA and the District.

Subsuming Demonstration: The requirements of the rule have been streamlined with the requirements of Rule 3.4 which establish explicit monitoring periods and submittal deadlines.

Subsuming Permit Condition:

A semi-annual monitoring report shall be submitted at least every six (6) consecutive months and shall identify any deviation from permit requirements, including that previously reported to the APCO pursuant to Section 302.7(a) of District Rule 3.8. The six (6) month periods shall be January 1 through June 30 and July 1 through December 31. The reports shall be submitted by July 30 and January 30 following each reporting period, respectively, unless otherwise approved in writing by the District. [District Rule 3.4, §409 and District Rule 3.8, §302.7(b)] (Title V Condition IV.L.2)

District Rule 3.20-Ozone Transport Mitigation

As documented above, the facility total potential to emit is above 10 tons per year for VOC or NOx, and therefore the post-project Stationary Source Potential to Emit (SSPE) will be calculated.

Annual permitted emissions for the stationary source including proposed emissions

VOC (lb)	383	lbs
NOx (lb)	116,884	lbs

Annual permitted emissions for equipment which is exempt from Rule 3.4*

VOC (lb)	238	lbs
NOx (lb)	2,504	lbs

* Emissions from P-85-94(t) for emergency engine.

Post-project Stationary Source Potential to Emit (SSPE)

VOC (lb)	145	lbs
NOx (lb)	114,380	lbs

Because the post-project SSPE is greater than 10 tons (20,000) lbs per year for VOC or NOx, per section 301.1, calculations shall be performed to determine the quantity of mitigation required, if any.

Pre-project Stationary Source Potential to Emit (SSPE)

VOC (lb)	145	lbs
NOx (lb)	114,380	lbs

Quantity of offsets required by Rule 3.4

VOC (lb)	0	lbs
NOx (lb)	0	lbs

Quantity of Mitigation required by Rule 3.20

VOC (lb)	0	lbs
NOx (lb)	0	lbs

40 CFR Part 60, Subpart A-General Provisions

This subpart provides general monitoring, recordkeeping, performance, and compliance requirements for sources that are subject to New Source Performance Standards (NSPS). The rule applies to the nitric acid production plant operating under P-37-82(a3). The source is currently in compliance with this subpart.

Rule Requirement #1 (Permit Condition) - Excess Emission Reporting

The Permit Holder shall submit a quarterly excess emissions and monitoring system performance report and/or a summary report form to the District and U.S. EPA, Region IX within thirty (30) days of the end of each quarter. [40 CFR Part 60, Section 60.7(a)(7)(c)] (ATC Condition 38 / Title V Permit Condition II.D.5)

Rule Requirement #2 (Permit Condition) - Records Maintenance

The Permit Holder shall maintain records of the occurrence and duration of any:

- a. Startup, shutdown, or malfunction in the operation of an affected facility;
- b. Any malfunction of the air pollution control equipment; and
- c. Any periods during which a CEMS or monitoring device is inoperative. [40 CFR Part 60.7(b)] (ATC Condition 34 / Title V Permit Condition II.D.7)

Rule Requirement #3 (Permit Condition) - Summary, Excess Emissions, and Monitoring Reporting

The Permit Holder shall submit a summary report and excess emissions and monitoring report if the total duration of excess emissions for the reporting period is 1% or greater of the total operating time for the reporting period, or if the total CEMS downtime for the reporting period is 5% or greater of the total operating time for the reporting period. [40 CFR Part 60.7(d)(2)] (ATC Condition 39 / Title V Permit Condition II.D.6)

Rule Requirement #4 (Permit Condition) - Record Retention

Subpart 60.7(f) requires that the applicable records (including files of measurements, CEMS data and performance testing, and system maintenance) be kept in a format suitable for inspection and retained for at least two (2) years.

Subsuming Demonstration: The record retention requirements of the rule have been subsumed with the requirements of Section 501 and District Rule 2.42 and the retention period increased to five (5) years.

Subsuming Permit Condition:

See Rule Requirement #9 of Rule 2.42 above.

Rule Requirement #5 (Permit Condition) - CEMS Zero and Span Calibration

Subpart 60.13(d)(1) requires that an affected CEMS system be adjusted if it's daily zero or span drift values are found to be outside of the allowed tolerance of 40 CFR Part 60 - Appendix B, Specification 2.

Streamlining Demonstration: For clarity, the related requirements of Part 60.13(d)(1) and Appendix B, Specification 2 have been streamlined into a single condition.

Streamlined Permit Condition:

The zero and span NOx calibrations shall be adjusted whenever the daily zero drift or the daily span drift deviates from the reference value of the calibration gas by more than two-times 2.5% of the span value. [40 CFR Part 60.13(d)(1) and 40 CFR Part 60 - Appendix B, Specifications 2] (ATC Condition 25 / Title V Permit Condition II.C.21)

Rule Requirement #6 (Permit Condition) - CEMS Calibration Frequency

The Permit Holder shall check the zero and span calibration drifts at least once daily (24 hour) in accordance with a written procedure. [40 CFR Part 60.13(d)(1)] (ATC Condition 23 / Title V Permit Condition II.C.19)

Rule Requirement #7 (Permit Condition) - CEMS Continuous Operation

Each CEMS shall be in continuous operation except for system breakdowns, repairs, calibration checks, and zero and span adjustments. [40 CFR Part 60.13(e)] (ATC Condition 22 / Title V Permit Condition II.C.18)

Rule Requirement #8 (Permit Condition) - CEMS Operating Cycle

Each CEMS shall complete a minimum of one (1) cycle of operation (sampling, analyzing, and data recording) for each successive fifteen (15) minute period. [40 CFR Part 60.13(e)(2)] (ATC Condition 19 / Title V Permit Condition II.C.15)

Rule Requirement #10 (Permit Condition) - CEMS Data Points

One (1) hour averages shall be computed from four (4) or more data points equally spaced over each one (1) hour period. [40 CFR Part 60.13(h)] (ATC Condition 20 / Title V Permit Condition II.C.16)

Rule Requirement #11 (Permit Condition) - CEMS Data Exclusion

The data accumulated during periods of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, shall not be included in the data average. [40 CFR Part 60.13(h)] (ATC Condition 21 / Title V Permit Condition II.C.17)

40 CFR Part 60, Subpart G-Standards of Performance for Nitric Acid Plants

This subpart contains emission guidelines and monitoring requirements for control of NO_x from nitric acid production plants. The source is subject to the requirement of this subpart since the plant produces nitric acid and commenced operation after 08/17/1971.

Rule Requirement #1 (Permit Condition) - Compliance with 40 CFR Part 60 - Subpart G

The nitric acid production facility shall be operated in accordance with the requirements of 40 CFR Part 60 - Subpart G (Standards of Performance for Nitric Acid Plants). [40 CFR Part 60.70 through 60.74] (ATC Condition 9 / Title V Permit Condition II.B.27)

Rule Requirement #2 (Permit Condition) - NO_x Emission Rate

Subpart 60.72(a)(1) requires that no affected facility emit NO_x emissions "expressed as NO₂, in excess of 1.5 kg per metric ton of acid produced (3.0 lb per ton), the production being expressed as 100 percent nitric acid."

Streamlining Demonstration: The requirements of the rule have been streamlined with the requirements of Sections 110 and 301 of District Rule 2.42.

Streamlined Permit Condition:

See Rule Requirement #1 of Rule 2.42 above.

Rule Requirement #3 (Permit Condition) - Opacity Limit

Subpart 60.72(a)(2) requires that the visible emissions from an affected plant not "exhibit 10 percent opacity, or greater."

Streamlining Demonstration: The requirements of the rule have been streamlined with the requirements of Sections 110 and 302 of District Rule 2.42.

Streamlined Permit Condition:

See Rule Requirement #1 of Rule 2.42 above.

Rule Requirement #4 (Permit Condition) - CEMS for NO_x

Subpart 60.73(a) requires that an affected facility install, calibrate, maintain, and operate a CEMS for measuring NO_x emissions.

Streamlining Demonstration: The requirements of the rule have been streamlined with the requirements of Section 303 of District Rule 2.42.

Streamlined Permit Condition:

See Rule Requirement #4 of Rule 2.42 above.

Rule Requirement #5 (Permit Condition) - NO_x CEMS Compliance

Subpart 60.73(a) requires that an affected CEMS comply with the provisions of 40 CFR Part 60 - Appendix B, Specification 2.

Streamlining Demonstration: The requirements of the rule have been streamlined with the requirements of Section 303.1 of District Rule 2.42.

Streamlined Permit Condition:

See Rule Requirement #5 of Rule 2.42 above.

Rule Requirement #6 (Permit Condition) - NOx CEMS Calibration

Subpart 60.73 (a) requires that affected CEMS be calibrated using NO₂ calibration gas with a value between 450 and 500 ppm. As previously established for this facility, the source is allowed to use NO calibration gas in lieu of NO₂ gas.

Streamlining Demonstration: The requirements of the rule have been streamlined with the requirements of District Rule 2.42 and District Rule 3.4.

Streamlined Permit Condition:

See Rule Requirement #6 of Rule 2.42 above.

Rule Requirements #7 & #8 (Permit Condition) - NOx Concentration and Conversion Factor

Subpart 60.73(b) requires that an affected operator establish a NO_x conversion factor in order to calculate the mass emission of a plant (lb/ton) from emission concentration (ppm).

Subpart 60.74(b)(1) establishes the NO_x emission rate equation to be used when determining compliance with the emission standard of the subpart.

Streamlining Demonstration: The requirements of the rule have been streamlined with the requirements of Sections 602 and 603 District Rule 2.42.

Streamlined Permit Conditions:

See Rule Requirements #13 and #14 of Rule 2.42 above.

Rule Requirement #9 (Permit Condition) - Recordkeeping

Subpart 60.73(c) requires that owner record the daily production rate and hours of operation of an affected plant.

Streamlining Demonstration: The requirements of the rule have been streamlined with the requirements of Section 502 of District Rule 2.42.

Streamlined Permit Condition:

See Rule Requirement #10 of Rule 2.42 above.

Rule Requirements #10 & #11 (Permit Condition) - Source Test Methods

Subpart 60.74(b)(2) requires that the facility's NO_x emissions be tested using U.S. EPA Method 7.

Subpart 60.74(b)(3) requires that the facility's exhaust volumetric flow rate be determined using U.S. EPA Method 2.

Streamlining Demonstration: The requirements of the rule have been streamlined with the requirements of Sections 601 and 602 of District Rule 2.42 and District Rule 3.4.

Streamlined Permit Conditions:

See Rule Requirements #11 and 12 of Rule 2.42 above.

40 CFR Part 60, Appendix B-Performance Specifications

This appendix details performance specifications for CEMS units that are required by Subparts of 40 CFR Part 60. This appendix is applicable to the NO_x CEMS unit on the nitric acid production facility operating under P-37-82(a3). The source is currently in compliance with this appendix.

Rule Requirements #1 & #2 (Permit Condition) - CEMS High Level Calibration

Section 6.1.1.2 of Specification 2 and Specification 4 require that the CEMS have a "high-level value between 1.5 times the pollutant concentration corresponding to the emission standard level and the span value given in the applicable regulations is adequate."

Streamlining Demonstration: For clarity, the performance specifications for the NO_x and CO monitors have been streamlined together.

Streamlined Permit Conditions:

Each CEMS (recorder output) shall have a high-level value between 1.5 times the pollutant concentration corresponding to the emission standard level and the span value. [40 CFR Part 60 - Appendix B, Performance Specifications 2 & 4, Section 6.1.1.2] *(ATC Condition 17 / Title V Permit Condition II.C.13)*

Rule Requirements #3 & #4 (Permit Condition) - CEMS Calibration Drift

Section 6.1.2 of Specification 2 and Specification 4 specifies the determination of calibration drift at the zero and high-level values.

Streamlining Demonstration: For clarity, the performance specifications for the NO_x and CO monitors have been streamlined together.

Streamlined Permit Conditions:

The calibration gas shall have a reference value between 50% and 100% of the high-level value. [40 CFR Part 60 - Appendix B, Performance Specifications 2 & 4, Section 6.1.2] *(ATC Condition 18 / Title V Permit Condition II.C.14)*

Rule Requirement #5 (Permit Condition) - NO_x CEMS Zero and Span Calibration

Section 13.1 of Specification 2 limits the NO_x CEMS calibration drift to no more than 2.5% the established span value.

Subsuming Demonstration: For clarity, the related requirements of Part 60.13(d)(1) and Appendix B, Specification 2 have been streamlined into a single condition.

Subsuming Permit Conditions:

See Rule Requirement #5 of 40 CFR Part 60, Subpart A above.

Rule Requirement #6 (Permit Condition) - CO CEMS Zero and Span Calibration

Section 13.1 of Specification 4 limits the CO CEMS calibration drift to no more than 5% of the established span value for 6 out of 7 test days.

Streamlining Demonstration: For clarity, the Appendix B, Specification 2 requirements have been streamlined with the requirements of District Rule 3.4.

Streamlined Permit Conditions:

The zero and span CO calibrations shall be adjusted whenever the daily zero drift or the daily span drift deviates from the reference value of the calibration gas by more than two-times 5% of the span value. [District Rule 3.4, §409 and 40 CFR Part 60 - Appendix B, Specification 4, Section 13.1] *(ATC Condition 24 / Title V Permit Condition II.C.20)*

40 CFR Part 60, Appendix F-Quality Assurance Procedures

This appendix establishes quality control (QC) and quality assurance (QA) procedures required to evaluate the effectiveness of the data produced by a CEMS being used for determining compliance with the emission standards on a continuous basis under the provisions of 40 CFR Part 60. The source is currently in compliance with the requirements of the subpart.

Rule Requirement #1 (Permit Condition) - Testing Frequency

Section 5.1.1 of Procedure 1 of Appendix F, establishes a RATA frequency of once every four calendar quarters.

Streamlining Demonstration: The requirements of the rule have been streamlined with the requirements of District Rule 3.4.

Streamlined Permit Conditions:

The Permit Holder shall perform a Relative Accuracy Test Audit (RATA) of the CO and NOx CEMS at least once every twelve (12) consecutive calendar months. The RATA shall be performed in accordance with 40 CFR Part 60 - Appendix F (Quality Assurance Procedures), or approved equivalent. [District Rule 3.4, §409 and 40 CFR Part 60 - Appendix F, Procedure 1, Section 5.1.1] *(ATC Condition 29 / Title V Permit Condition II.C.23)*

40 CFR Part 64-Compliance Assurance Monitoring

This subpart provides guidelines for developing a Compliance Assurance Monitoring (CAM) Plan. The CAM Plan requires that a facility monitor the appropriate parameters of a process or its control equipment, and/or measure the process' actual emissions, so as to ensure emission compliance on an ongoing basis. The nitric acid production facility is not subject to the requirements of this subpart based on the regulation's CEMS exemption (see below).

For reference, the CAM applicability requirements are pollutant specific and apply to any pollutant emissions unit at a major source that is required to obtain a Part 70 permit which satisfies all of the following:

- a. The unit is subject to an emission limit or standard for an applicable regulated air pollutant;
- b. The unit uses a control device to achieve compliance with any such emission limitation or standard; and
- c. The unit's pre-control device potential to emit of an applicable regulated pollutant is greater than or equal to that pollutant's major source threshold.

Rule Requirement #1 - CAM Applicability

The CAM plan requirements are pollutant specific, and apply to emission units equipped with pollutant specific control devices (defined in Part 64.1). The CAM applicability determinations will be completed separately for the CO and NOx pollutants.

Applicability Determination for CO: The following findings can be made for the facility's CO emissions:

- a. The facility is subject to CO specific emission limits of PTO P-37-82(a4);
- b. Although not given any specific control efficiency, the modified facility will operate with a CO specific control device used to comply with the emission limits of P-37-82(a4); and
- c. The modified facility's potential to emit (PTE) is less than the major source threshold of 100 tons per year.

The facility meets two of the three applicability requirements of the rule. Therefore, the facility is not subject to the CAM requirements for its CO emissions.

Applicability Determination for NOx: The following findings can be made for the facility's NOx emissions:

- a. The facility is subject to the NOx emission standards of Subpart G and PTO P-37-82(a3);
- b. The facility is equipped with a NOx specific control device ("NOx Decomposer") consisting of a non-selective catalytic reduction system (NSCR) used to comply with the emission standards of Subpart G and PTO P-37-82(a4); and
- c. The facility's pre-control device PTE is between 792 tons and 4,666 tons per year (calculated using a NSCR control efficiency range of 94.7% to 99.1%, as listed in U.S. EPA's "Alternative Control Techniques Document - Nitric and Adipic Acid Manufacturing Plants" - Pg. 5-17, December 1991).

Although the facility meets all three CAM requirements for NOx, it is exempted from the requirements of the rule per the provisions of Section 64.2(b)(vi). The section requires that any emissions unit complying with a continuous compliance determination method be exempted from the requirements of the subpart. Therefore, by complying with the CEMS requirements of Subpart G, the nitric acid production plant is exempted from the CAM requirements.

Permit Condition

No permit condition is required.

District Risk Management Plan and Risk Assessment Guidelines

The application results no change in CO or NOx emissions for the operation. Since an increase in the operation's health risk is not expected, the District will not perform a health risk screening for this project.

COMMENTS:

The application does not trigger BACT, offsets, or mitigation credits.

Proposed Title V Permit F-00470-12 contains the proposed revisions of Proposed Title V Permit F-00470-11 (ATC C-12-42) and proposes the removal of conditions pertaining to cancelled PTO P-71-78(a).

RECOMMENDATIONS:

Provide written notice of the proposed decision to CARB and U.S. EPA prior to the issuance of ATC C-12-82.

Engineer: Rene Toled

Date: 09/11/2012

Reviewed by: Frank Toheria

Date: 9/11/2012

YOLO SOLANO AIR QUALITY MANAGEMENT DISTRICT
1547 Galileo Court, Suite 103, Davis, CA 95618

New Source Review

Quarterly Potential To Emit Determination

NSR Version 08/13/1998

Evaluation to be used only for existing permits. www.dwr.state.ca.us/air/quality/pqe

Engineer: René Toledo SIC Code # 2873

Facility Name: Agrium U.S., Inc.

Date of Initial Quarterly PTE Determination: 12/03/1999
Date of Previous Quarterly PTE Determination: 05/30/2012
Date of Current Quarterly PTE Determination: 09/05/2012

Location: 3961 Channel Drive, West Sacramento, CA

ATC's PTO's
C-12-82

CURRENT APPLICATIONS:

Process Description	Current Permits #	VOC Emissions				CO Emissions				NOx Emissions				SOx Emissions				PM10 Emissions								
		QTR 1 (lbs)	QTR 2 (lbs)	QTR 3 (lbs)	QTR 4 (lbs)	Annual (TPY)	QTR 1 (lbs)	QTR 2 (lbs)	QTR 3 (lbs)	QTR 4 (lbs)	Annual (TPY)	QTR 1 (lbs)	QTR 2 (lbs)	QTR 3 (lbs)	QTR 4 (lbs)	Annual (TPY)	QTR 1 (lbs)	QTR 2 (lbs)	QTR 3 (lbs)	QTR 4 (lbs)	Annual (TPY)					
Steam Generation	P-36-82(e)	30	31	31	31	0.06	3,198	3,228	3,259	3,259	6.47	394	398	402	402	0.80	6	7	7	7	0.01	148	150	151	151	0.30
Nitric Acid Production	P-37-82(a2)	0	0	0	0	0.00	90,000	91,000	92,000	92,000	168.00	22,500	22,750	23,000	23,000	42.00	0	0	0	0	0.00	0	0	0	0	0.00
Bulk Ammonia Warehousing	P-70-78(a1)	0	0	0	0	0.01	21	21	21	0.04	7,198	7,198	7,198	7,198	14.38	16	16	16	16	0.03	148	148	148	148	0.30	
Shipping & Transfer of Bulk Urea	P-72-78(a7)	0	0	0	0	0.00	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	4,559	4,562	4,566	4,565	2.72	
Receiving of Bulk Urea - Heilbrunn Truck	P-33-09(a) 6	0	0	0	0	0.00	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	1,741	1,780	1,780	1,780	2.42	
Receiving of Bulk Urea - Ship/Sarga	P-73-78(a3)	0	0	0	0	0.00	0	0	0	0.00	0	0	0	0	0.00	0	0	0	0	0.00	1,634	1,631	1,636	1,636	2.77	
PRE-PROJECT SSPE ^a (lbs)		36	37	37	37	1.45	93,219	94,249	95,280	95,280	349.023	30,087	30,344	30,600	30,600	114,380	22	23	23	23	85	11,828	11,852	11,876	11,876	16,708
POST-PROJECT SSPE ^a (lbs)		36	37	37	37	1.45	93,219	94,249	95,280	95,280	349.023	30,087	30,344	30,600	30,600	114,380	22	23	23	23	85	11,828	11,852	11,876	11,876	16,708
Emergency IC Engines (600 BHP)	P-85-94(f)	238	238	238	238	0.12	545	545	545	545	0.27	2,504	2,504	2,504	2,504	1.25	38	38	38	38	0.02	172	172	172	172	0.06
PRE-PROJECT TOTAL PTE ^b		274	275	275	275	0.19	93,764	94,794	95,825	95,825	174.78	32,591	32,848	33,104	33,104	58.44	60	61	61	61	0.08	12,000	12,024	12,048	12,048	8.44
POST-PROJECT TOTAL PTE ^c		274	275	275	275	0.19	93,764	94,794	95,825	95,825	174.78	32,591	32,848	33,104	33,104	58.44	60	61	61	61	0.08	12,000	12,024	12,048	12,048	8.44

^a PTO P-71-78(a1) (Ammonia Backup Heater) was cancelled on 06/01/2012 and has removed from the Quarterly PTE worksheet.

^b Because the source has not implemented ATC C-12-41 into a PTO, the facility's SSPE and Total PTE calculations will conservatively include the higher emission limits of P-33-09(a) (and not ATC C-12-41).

^c For the requirements of Rule 3.20, the facility's pre- and post-project Stationary Source Potential to Emit (SSPE) calculations do not include any emissions from permitted emergency equipment.

^d The facility's pre- and post-project Total Potential to Emit (PTE) calculations include all permitted equipment operating at the site.

Post-Project Stationary Source Potential to Emit (SSPE)

	Yearly (lbs/year)			
	Quarter #1	Quarter #2	Quarter #3	Quarter #4
VOC (lbs)	36	37	37	37
CO (lbs)	93,219	94,243	95,280	95,280
NOx (lbs)	30,087	30,344	30,600	30,600
SOx (lbs)	22	23	23	23
PM10 (lbs)	11,828	11,852	11,876	11,876

Post-Project Total Quarterly Potential to Emit (PTE)

	Yearly (lbs/quarter)			
	Quarter #1	Quarter #2	Quarter #3	Quarter #4
VOC (lbs)	274	275	275	275
CO (lbs)	93,219	94,794	95,825	95,825
NOx (lbs)	32,591	32,548	33,104	33,104
SOx (lbs)	60	61	61	61
PM10 (lbs)	12,000	12,024	12,048	12,048

SSPE Comparison to Rule 3.20 Triggers

	Annual	
	Below	Above
VOC	-	-
CO	-	-
NOx	-	-
SOx	-	-
PM10	-	-

PTE Comparison to NSR Triggers

	Quarterly			
	Quarter #1	Quarter #2	Quarter #3	Quarter #4
VOC	Below	Below	Below	Below
CO	Above	Above	Above	Above
NOx	Above	Above	Above	Above
SOx	Below	Below	Below	Below
PM10	Below	Below	Below	Below

MITIGATION THRESHOLDS

	Yearly (lbs/year)	
	Below	Above
VOC	7,500	20,000
CO	20,000	20,000
NOx	20,000	20,000
SOx	20,000	20,000
PM10	20,000	20,000

OFFSET THRESHOLDS

	Quarterly (lbs/quarter)	
	Below	Above
VOC	7,500	20,000
CO	20,000	20,000
NOx	20,000	20,000
SOx	20,000	20,000
PM10	20,000	20,000

COMMENTS: This quarterly PTE evaluation was updated for ATC C-12-82 (Nitric Acid Production).

Engineer: René Toledo Date: 09/07/2012

Reviewed by: Frank DeWain Date: 9/7/2012

YOLO-SOLANO AIR QUALITY MANAGEMENT DISTRICT
1947 Galileo Court, Suite 103; Davis, CA 95618

**New Source Review
Last Five Year Activity**

Engineer: René Toledo

SIC Code # 2873

Facility Name: Agrium U.S. Inc. ^a

Date of Initial Determination: 10/03/2005

Date of Previous Determination: 05/30/2012

Location: 3961 Channel Drive; West Sacramento, CA

Date of Current Determination: 09/05/2012

Process	Issued Permits	Date PTO Issued	ATC	Date ATC Issued	VOC (TPY)	CO (TPY)	NOx (TPY)	SOx (TPY)	PM10 (TPY)
Nitric Acid Production	P-37-82(a2)	02/28/2001	C-00-114	11/28/2000	0.00	0.00	0.00	0.00	0.00
Steam Generation	P-36-82(a)	11/21/2001	C-00-107	04/30/2001	0.00	0.57	0.00	0.00	0.00
Shipping & Transfer of Bulk Urea	-	-	C-00-115 ^b	06/12/2001	0.00	0.00	0.00	0.00	0.00
Receiving of Bulk Urea - Ship/Barge	-	-	C-00-116 ^c	06/12/2001	0.00	0.00	0.00	0.00	0.00
Ammonia Product Heater (Back Up)	P-71-78(a)	01/17/2003	C-01-169 ^d	04/04/2002	0.00	0.00	0.00	0.00	0.00
Bulk Ammonia Warehousing	P-70-78(a)	01/17/2003	C-01-162 ^e	09/17/2002	0.00	0.00	0.00	0.00	0.00
Receiving of Bulk Urea - Ship/Barge	-	-	C-03-129 ^f	10/23/2003	0.00	0.00	0.00	0.00	1.34
Nitric Acid Production	P-37-82(a2)	05/03/2005	C-03-68	10/23/2003	0.00	0.00	0.00	0.00	0.00
Shipping & Transfer of Bulk Urea	-	-	C-04-76 ^g	06/16/2005	0.00	0.00	0.00	0.00	0.06
Receiving of Bulk Urea - Ship/Barge	P-73-78(a2)	03/16/2006	C-04-77 ^h	10/21/2005	0.00	0.00	0.00	0.00	0.00
Shipping & Transfer of Bulk Urea	P-72-78(a3)	03/16/2006	C-05-204	10/21/2005	0.00	0.00	0.00	0.00	0.28
Ammonia Flare	P-70-78(a1)	04/12/2007	C-06-181	02/21/2007	0.00	0.00	0.00	0.00	0.00
Shipping & Transfer of Bulk Urea	P-72-78(a4)	08/17/2007	C-07-60	05/03/2007	0.00	0.00	0.00	0.00	0.05
Shipping & Transfer of Bulk Urea	P-72-78(a5)	07/30/2008	C-07-223	06/11/2008	0.00	0.00	0.00	0.00	0.74
Receiving of Bulk Urea - Ship/Barge	P-73-78(a3)	07/30/2008	C-07-224	06/11/2008	0.00	0.00	0.00	0.00	0.16
Receiving of Bulk Urea - Railcar/Truck	P-33-09	06/25/2009	C-08-114 ⁱ	09/22/2008	0.00	0.00	0.00	0.00	0.89
Shipping & Transfer of Bulk Urea	P-72-78(a7)	06/25/2009	C-08-225	09/22/2008	0.00	0.00	0.00	0.00	0.16
Receiving of Bulk Urea - Railcar/Truck	P-33-09(a)	07/16/2010	C-10-14	04/06/2010	0.00	0.00	0.00	0.00	1.53
Nitric Acid Production	-	-	C-10-99	CANCELED	-	-	-	-	-
Nitric Acid Production	P-37-82(a3)	11/29/2011	C-11-61	07/22/2011	0.00	0.00	0.00	0.00	0.00
Receiving of Bulk Urea - Railcar/Truck	P-33-09(a1)	-	C-12-41	06/28/2012	0.00	0.00	0.00	0.00	0.00
Nitric Acid Production	P-37-82(a34)	-	C-12-82	PENDING	0.00	0.00	0.00	0.00	0.00
TOTAL ^k					0.00	0.00	0.00	0.00	3.47

^a Facility transfer of ownership from Prodicta, LLC to Agrium US Inc. approved 6/12/2001.

^b C-00-115 proposed to modify P-72-78(a1), but canceled on 2/18/03.

^c C-00-116 proposed to modify P-73-78(a), but canceled on 2/18/03.

^d C-01-169 revised on 12/9/05 to correct for emission limit errors.

^e C-01-162 incorporates the emissions of P-31-91.

^f C-03-129 superseded by ATC application C-04-77 (proposing to modify P-73-78(t)).

^g C-04-76 superseded by ATC application C-05-204 (proposing to modify P-72-78(t)).

^h C-04-77 revised to correct an error in calculations (re-issued 10/21/2005).

ⁱ C-08-114 revised to properly account for overfilled truck off-loading emissions and process limits (see attached email dated 10/10/2008).

^k All decreases in PTE are treated as zero net change and not included in the Total 5-Year Aggregate summation.

COMMENTS: These permits are sorted by the ATC issuance date. According to Rule 3.4, Section 221, a major modification is calculated based on all creditable increases and decreases from the source over the period of five consecutive years before the application, including the calendar year of the most recent application. The applicable period ranges from August 2007 to the present.

Engineer: René Toledo

Date: 09/07/2012

Reviewed by: Frank Tozmarin

Date: 9/7/2012