# Compliance History Report

Customer/Respondent/Owner-Operator: CN602582231 Invista S.a.r.l. Classification: AVERAGE Rating: 3.62

Regulated Entity: RN102663671 INVISTA SARL Classification: AVERAGE Site Rating: 0.98

ID Number(s):

| | | |
|---|---|---|
| AIR OPERATING PERMITS | ACCOUNT NUMBER | VC0008Q |
| AIR OPERATING PERMITS | PERMIT | 1415 |
| AIR OPERATING PERMITS | PERMIT | 1865 |
| AIR OPERATING PERMITS | PERMIT | 1866 |
| AIR OPERATING PERMITS | PERMIT | 1867 |
| AIR OPERATING PERMITS | PERMIT | 1890 |
| AIR OPERATING PERMITS | PERMIT | 1904 |
| AIR OPERATING PERMITS | PERMIT | 1902 |
| AIR OPERATING PERMITS | PERMIT | 1415 |
| AIR OPERATING PERMITS | PERMIT | 1865 |
| AIR OPERATING PERMITS | PERMIT | 1866 |
| AIR OPERATING PERMITS | PERMIT | 1867 |
| AIR OPERATING PERMITS | PERMIT | 1890 |
| AIR OPERATING PERMITS | PERMIT | 1902 |
| AIR OPERATING PERMITS | PERMIT | 1904 |
| AIR OPERATING PERMITS | ACCOUNT NUMBER | VC0008Q |
| PETROLEUM STORAGE TANK REGISTRATION | REGISTRATION | 24717 |
| UNDERGROUND INJECTION CONTROL | PERMIT | WDW004 |
| UNDERGROUND INJECTION CONTROL | PERMIT | WDW028 |
| UNDERGROUND INJECTION CONTROL | PERMIT | WDW029 |
| UNDERGROUND INJECTION CONTROL | PERMIT | WDW030 |
| UNDERGROUND INJECTION CONTROL | PERMIT | WDW105 |
| UNDERGROUND INJECTION CONTROL | PERMIT | WDW106 |
| UNDERGROUND INJECTION CONTROL | PERMIT | WDW142 |
| UNDERGROUND INJECTION CONTROL | PERMIT | WDW143 |
| UNDERGROUND INJECTION CONTROL | PERMIT | WDW144 |
| INDUSTRIAL AND HAZARDOUS WASTE GENERATION | EPA ID | TXD008123317 |
| INDUSTRIAL AND HAZARDOUS WASTE GENERATION | EPA ID | TXR000057968 |
| INDUSTRIAL AND HAZARDOUS WASTE STORAGE | PERMIT | 50056 |
| INDUSTRIAL AND HAZARDOUS WASTE STORAGE | PERMIT | 50393 |
| INDUSTRIAL AND HAZARDOUS WASTE STORAGE | PERMIT | 50056 |
| INDUSTRIAL AND HAZARDOUS WASTE PROCESSING | SOLID WASTE REGISTRATION # (SWR) | 87449 |
| AIR NEW SOURCE PERMITS | PERMIT | 809 |
| AIR NEW SOURCE PERMITS | PERMIT | 810 |
| AIR NEW SOURCE PERMITS | PERMIT | 812 |
| AIR NEW SOURCE PERMITS | PERMIT | 813 |
| AIR NEW SOURCE PERMITS | PERMIT | 3373 |
| AIR NEW SOURCE PERMITS | PERMIT | 7186 |
| AIR NEW SOURCE PERMITS | PERMIT | 7873 |
| AIR NEW SOURCE PERMITS | PERMIT | 9560 |
| AIR NEW SOURCE PERMITS | PERMIT | 14751 |
| AIR NEW SOURCE PERMITS | PERMIT | 20011 |
| AIR NEW SOURCE PERMITS | PERMIT | 23271 |
| AIR NEW SOURCE PERMITS | PERMIT | 31376 |
| AIR NEW SOURCE PERMITS | PERMIT | 34075 |
| AIR NEW SOURCE PERMITS | PERMIT | 37067 |
| AIR NEW SOURCE PERMITS | PERMIT | 43301 |
| AIR NEW SOURCE PERMITS | PERMIT | 43502 |
| AIR NEW SOURCE PERMITS | PERMIT | 43501 |
| AIR NEW SOURCE PERMITS | PERMIT | 43614 |
| AIR NEW SOURCE PERMITS | PERMIT | 44234 |
| AIR NEW SOURCE PERMITS | PERMIT | 44410 |
| AIR NEW SOURCE PERMITS | PERMIT | 44463 |
| AIR NEW SOURCE PERMITS | PERMIT | 45256 |

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|---|---|---|
| AIR NEW SOURCE PERMITS | PERMIT | 45219 |
| AIR NEW SOURCE PERMITS | PERMIT | 47610 |
| AIR NEW SOURCE PERMITS | ACCOUNT NUMBER | VC0008Q |
| AIR NEW SOURCE PERMITS | AFS NUM | 4846900001 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 71504 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 71789 |
| AIR NEW SOURCE PERMITS | PERMIT | 56688 |
| AIR NEW SOURCE PERMITS | PERMIT | 73896 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 74109 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 74107 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 73898 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 74566 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 76878 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 76638 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 76575 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 76854 |
| AIR NEW SOURCE PERMITS | PERMIT | 77089 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 80416 |
| AIR NEW SOURCE PERMITS | EPA ID | PSDTX1079 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 80416L |
| AIR NEW SOURCE PERMITS | REGISTRATION | 81149 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 83151 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 86050 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 85686 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 85648 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 85497 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 85650 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 82508 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 82501 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 82498 |
| AIR NEW SOURCE PERMITS | EPA ID | P1079 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 82497 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 85492 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 85383 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 87075 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 85647 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 84582 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 84639 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 83137 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 85112 |
| AIR NEW SOURCE PERMITS | REGISTRATION | 85493 |
| PUBLIC WATER SYSTEM/SUPPLY | REGISTRATION | 2350014 |
| PUBLIC WATER SYSTEM/SUPPLY | REGISTRATION | 2350014 |
| WASTEWATER | PERMIT | WQ0000476000 |
| WASTEWATER | PERMIT | TPDES0006050 |
| WASTEWATER | PERMIT | TX0006050 |
| WASTEWATER LICENSING | LICENSE | WQ0000476000 |
| WATER LICENSING | LICENSE | 2350014 |
| IHW CORRECTIVE ACTION | SOLID WASTE REGISTRATION # (SWR) | 30079 |

Location: 2695 OLD BLOOMINGTON RD N, VICTORIA, TX, 77905

TCEQ Region: REGION 14 - CORPUS CHRISTI

Date Compliance History Prepared: January 21, 2009

Agency Decision Requiring Compliance History: Enforcement

Compliance Period: March 14, 2005 to March 15, 2000

TCEQ Staff Member to Contact for Additional Information Regarding this Compliance History

Name: Tim Eubank Phone: 239 - 1000

## Site Compliance History Components

1. Has the site been in existence and/or operation for the full five year compliance period? Yes

2. Has there been a (known) change in ownership of the site during the compliance period? No

3. If Yes, who is the current owner? N/A

4. if Yes, who was/were the prior owner(s)?

5. When did the change(s) in ownership occur? N/A

6. Rating Date: 9/1/2008 Repeat Violator: NO

**Components (Multimedia) for the Site :**

A. Final Enforcement Orders, court judgements, and consent decrees of the state of Texas and the federal government.

N/A

B. Any criminal convictions of the state of Texas and the federal government.

N/A

C. Chronic excessive emissions events.

N/A

D. The approval dates of investigations. (CCEDS Inv. Track. No.)

N/A

E. Written notices of violations (NOV). (CCEDS Inv. Track. No.)

N/A

F. Environmental audits.

G. Type of environmental management systems (EMSs).

N/A

H. Voluntary on-site compliance assessment dates.

N/A

I. Participation in a voluntary pollution reduction program.

N/A

J. Early compliance.

N/A

Sites Outside of Texas

N/A

# Permit Renewal
# Technical Review Analysis

| | | | |
|---|---|---|---|
| Company: | Invista Sarl | Permit No.: | 20011 |
| City: | Victoria | Project No.: | 114216 |
| County: | Victoria | Account No.: | VC-0008-Q |
| Project Type: | Renewal | Regulated Entity No.: | RN102663671 |
| Project Reviewer: | Mr. Lon Morris | Customer Reference No.: | CN602582231 |
| Facility Name: | C-12 Intermediates Unit | | |

**AUTHORIZATION CHECKLIST SECTION: (If YES to questions in this section, then ED signature required.)**

Will a new policy/precedent be established? ..... No
Is a state or local official opposed to the permit? ..... No
Is waste or tire derived fuel involved? ..... No
Are waste management facilities involved? ..... No
Will action on this application be posted on the Executive Director's agenda? ..... Yes
Have any changes to the application or subsequent proposals been required to increase protection of public health and the environment during the review? ..... No

**PROJECT OVERVIEW SECTION:**
Invista S.a.r.l. (INVISTA), submitted a timely application to renew the above referenced permit after being granted a filing extension. This was a no emission increase renewal which received public comments and a hearing request. Typically hearing requests are not granted for no emission increase renewals, however, the applicant subsequently determined that additional changes were required to accurately reflect permitted operations resulting in increased emissions. This resulted in the applicant submitting an amendment/renewal application to replace the previous no emission increase renewal application submitted in March 2005. The applicant included in the amendment/renewal application requests to roll-in several PBR's, remove sources no longer in service, and authorization for various MSS emissions.
Upper management decided to issue the amended permit and require a second public notice for the renewal based on the hearing request for the original renewal application. . A second public notice package, using a revised first public notice package format, was submitted to the applicant. The renewed permit is identical to the amended permit (see project 122509).

**REVIEW SUMMARY SECTION:**
The amended permit was issued May 21, 2008. A comprehensive review was conducted on the amendment application and the renewed permit reflects the changes incorporated into the amended permit.

**COMPLIANCE HISTORY SECTION:**
In accordance with 30 TAC Chapter 60, a compliance history report was reviewed on: ..... April 18, 2008
The compliance period was from 09/01/2002 to 08/31/2007
Was the application received after September 1, 2002? ..... Yes
If yes, what was the site rating & classification? 1.97 Average Company rating & classification? 3.53 Average
Is the permit recommended to be denied on the basis of compliance history or rating? ..... No
Has the permit changed on the basis of the compliance history or rating? ..... No

**30 TAC CHAPTER 116 RULES:**
§116.315(b) Date of expiration of permit ..... July 13, 2005
§116.310 Date written notice of review was mailed ..... July 22, 2004
§116.310 Date application for Renewal (PI-1R) rec'd ..... March 15, 2005
§116.311(a)(1) Do dockside vessel emissions associated with the facility comply with all regulations? ..... N/A
§116.311(a)(2) Is the facility being operated in accordance with all requirements, conditions, and representations specified in the current permit and do the emissions from the facility comply with all TCEQ air quality rules and regulations, and with the intent of the Texas Clean Air Act? ..... Yes

§116.311(a)(3) Compliance with applicable NSPS? ..... Yes

# Permit Renewal

**Technical Review Analysis**

Permit No. 20011 Regulated Entity No. RN102663671

Subparts A & Kb

§116.311(a)(4) Compliance with applicable NESHAPS? ..... Yes
Subparts A & FF

§116.311(a)(5) Compliance with applicable NESHAPS for source categories? ..... Yes
Subparts A, EEEE, and FFFF

§116.311(b)(1) Is additional information regarding emissions from the facility and their impacts on the surrounding area required? ..... No

§116.311(b)(2) Were additional controls/permit conditions necessary to avoid a condition of air pollution or to ensure compliance with applicable federal or state rules? ..... No

§116.311(c) Compliance History: Is the facility in substantial compliance with the TCAA and the terms of the current permit? .. Yes

§116.314(a) The facility meets all permit renewal requirements? ..... Yes

§116.313(a) Permit Renewal Fee: $4130.00 Paid? $3617.00 Check #32459 and $513.00 Check #34450

**PUBLIC NOTICE INFORMATION SECTION:**

§39.403 Public notification required? ..... Yes

Date application received: March 15, 2005 Date Administrative Complete: ..... April 15, 2005

Small Business source? ..... No

§39.418 Date 1st Public Notice /Admin Complete/Legislators letters mailed: ..... April 15, 2007

§39.603 Pollutants: Carbon monoxide; nitrogen oxides; ammonia; sulfur dioxide; particulate matter; nitric acid; organic acids; volatile organic compounds including benzene, 1,3-butadiene, butene, cyclododecane, cyclododecanone, cyclooctadiene, cyclododecatriene, cyclododecanol, cyclohexane, cyclohexanol, cyclohexanone, urea, and vinylcyclohexane.

Date Published in Newspaper: May 24, 2005 in Victoria Advocate

Date Affidavits/Copies received: June 13, 2005

Bilingual notice required? Yes Language: Spanish

Date Published in Newspaper: June 2, 2005 in Revista de Victoria

Date Affidavits/Copies received: June 13, 2005

§39.604 Certification of Sign Posting / Application availability ..... June 13, 2005

Public Comments Received? ..... Yes

Notice and Comment Hearing requested? A meeting was requested but denied in a letter dated November 8, 2005 based on a "no-increase" renewal.

Hearing held? ..... No

Was/were the request(s) withdrawn? ..... No

Replies to Comments sent to OCC: The RTC was filed with OCC in January 2006 and requested to be held until scheduling with the ED agenda.

§39.419 2nd Public Notification required? ..... Yes

Date 2nd Public Notice mailed: ..... July 10, 2008

§39.603 Pollutants: organic compounds, nitrogen oxides, sulfur dioxide, carbon monoxide, ammonia, nitric acid, boric acid, and particulate matter (including particulate matter less than 10 microns in diameter).

Date Published in Newspaper: July 22, 2008 in Victoria Advocate

Date Affidavits/Copies received: July 25, 2008

Bilingual notice required? ..... No

Public Comments Received? ..... No

Meeting requested? ..... No

Hearing requested? ..... No

§39.420 Consideration of Comments: ..... N/A

# Permit Renewal

**Technical Review Analysis**

Permit No. 20011 Regulated Entity No. RN102663671

**REQUEST FOR COMMENTS SECTION:**

| | | | |
|---|---|---|---|
| Region: | 14 | Reviewed by: | Sinoel Contreras 02/09/2007 |
| TARA: | | Reviewed by: | Jong-Song Lee 02/07/2007 |
| Legal: | | Reviewed by: | Tim Eubank 07/10/2008 |

**CHAPTER 113 RULES SECTION:**

§113.100 Compliance with applicable MACT standards expected? ..... N/A

**PROCESS DESCRIPTION SECTION:**

The C-12 Intermediates Unit utilizes a series of four reactions to produce dodecanedioic acid from butadiene. Supporting facilities are provided to purify the intermediate compounds and separate organic wastes for recovery as by-products or for disposal as fuels in the N. 2 APH. The four basic reactions in sequence are:

- Trimerization of butadiene (BD) to cyclododecatriene (CDDT) in the presence of a catalyst in Operations 11 and 11A. BD dimers, cyclooctadiene (COD), and vinylcyclohexane (VCH) are obtained as by-products and used as waste fuel in the Adipic Powerhouse.
- Hydorgenation of the CDDT to cyclododecane (CDD) in Operation 12.
- Air oxidation of the CDD to cyclododecanol and cyclododecanone (A/K) in Operations 13 and 14.
- Nitric acid oxidation of A/K to dodecanedioic acid (DDDA) in operations 15 and 16.

**SOURCES AND CONTROLS SECTION:**

The review for the amendment application included the following:

**Deletions from Special Conditions and MAERT:**

Special Conditions No. 6 in the current permit has been removed and replaced with 32M Emission Standard language in Special Condition Nos. 1 and 2 in the amended conditions.

Special Conditions Nos 7, 11, and 12 in the current permit authorizes upset emissions and have been removed from the permit renewal/amendment.

The following sources have been removed from service and are deleted from the MAERT: EPNs 07TFX-33C, 07TFX-052, 18TFX-060, 18TFX-060A, 07LTR-015B, and 07FLT0-46.

Special Condition #10 in the current permit authorizes VOC and PM emissions associated with startup and shutdown activities from four jet vents (EPNs 07VNT-009, -010, 011, and 012). These emissions are routed to the Adipic Powerhouse and are accounted for in permit No. 812 and so are removed from the MAERT in permit 20011along with special condition #10 from the special conditions.

**PBR Roll-ins:**

PBR registration #48181 authorizes increased throughput to two oxidation reactors that route vent emissions to Boiler stack 15STK-006 authorized under permit 812. There will be no increased emissions associated with this PBR consolidation.

PBR registration 51518 authorizes increased throughput for Crude DBW Oil storage tanks (EPNs 07TFX-026A and 07TFX-026B) which includes previous existing but not represented oxides of nitrogen emissions. The emissions increases associated with this PBR authorization include less than 0.01 lb/hr and less than 0.01 tpy of NOx and HNO3 for each tank. These tanks are 19,000 gallon capacity storage tanks and satisfy BACT for storage of DBW material.

A DBW $H_2$ Reactor EPN 07RSY-026F and a DBW Flash Dryer EPN 07DIS-026Gare authorized under PBR registration 54319 and will be consolidated into permit #20011. The emissions associated with these EPNs are less than 0.01lbs/hr and 0.01 tpy for ammonia and carbon monoxide. These vessels contain VOC compounds with vapor pressures less than 0.05 psia and BACT does not require a control device for these compounds.

PBR 73767 authorizes the use of sulfuric acid to replace nitric acid to adjust pH of waste water prior to deep well injection.

PBR 73758 authorizes a urea mix tank (EPN 07TFX-636A) and a previously existing urea solution tank (EPN 07TFX-636). 07TFX-636A is a fixed roof 12,900 gallon capacity storage tank while 07TFX-636 is a 1,664 gallon capacity fixed roof tank. The size of these tanks satisfies BACT to store the urea mixtures. AP-42 calculation methodologies determined that emissions from these tanks are 0.02 lbs/hr

and 0.03 lbs/hr respectively and less than 0.01 tpy of VOCs.
PBR 78364 authorizes a change in the operation and composition of the Non Volatile Residue (NVR) Hold up tank (EPN 07TFX-025). The emission increases associated with this change are 0.13 tpy of VOC. In addition, this PBR authorizes an increase in NVR throughputs resulting in 0.02 tpy of VOC emissions from NVR truck loading (EPN LTR-025A). The loading emissions are controlled with a carbon adsorption system with a 90% destruction efficiency to satisfy BACT.
PBR 78385 authorizes transloading of dodecanedioic acid (DDDA) in the form of flakes or powder. Transloading will occur between hopper cars and hopper trucks with particulates controlled with bag filters. EPN 07LTR-028A represents the DDDA transloading operations. The grain loading will not exceed o.o1 grains per dscf to satisfy BACT. (See special condition #12)

**Administrative Changes:**
The EPN designation for the ADN Op-Flare has changed from EPN 07FLR-004 to EPN 10FLR-005 to be consistent with the representations of this flare in INVISTA Permit No. 7186.
Natural gas pilot emissions associated with the Op 15 Vent Decolorizer (EPN 07VNT-029) were omitted from the current permit. These emissions are reflected in this permit renewal/amendment action.
The Class A/B Swing Oil Service Tank EPN 18TFL-065A and the Class A/B Swing Aqueous tank EPN 18TFL-065B have been combined into EPN 18TFL-065.

**Allowable Emission Changes:**
Flare emissions (EPN 10FLR-005)are adjusted to reflect the removal of a $NH_3$ Stripper vent stream routed to the flare resulting in a reduction of emissions.
Increased annual emissions of 5.50 tpy of $NO_x$ and 0.18 tpy of CO for Filter Jet Vent (EPN 07VNT-008) result from increasing operating hours to 8760 hours/year to reflect actual operations.

The current permit represented some receiver emissions based on equally divided annual throughputs between parallel receivers. The maximum emissions have been revised to represent worst case emissions based on total annual throughputs through a single receiver. Receivers affected by this change in calculation methodology are: EPNs 07TFX-033A, -033B, -032A, -032B, -032C, -032D, -032E, -037A, -037B, and -037C. Updated allowable emissions for these receivers also include corrections to reflect current vapor pressure data, actual fill rates, capacities, breather vent settings, and annual throughputs. The updated allowable emission corrections also apply to the following receivers: EPNs 07TFX-005, -005A, -034, -038A, and -038B.

Increased throughputs for "A" Waste Tank (EPN 18TFL-027) and 2nd Stage Decanter (EPN 07TFX-024) results in increases in VOC allowable emissions of 0.03 lbs/hr; 0.62 tpy and 20.7 lbs/hr; 3.58 tpy respectively. The emission calculations for the 2nd Stage Decanter account for both organic and aqueous solutions whereas previously only the organic material stored was considered.

Previously unrepresented existing emissions of $NO_x$ have been included for EPNs 07TFX-026A and -026B. Also previously unrepresented existing VOC emissions are included for the following sources: EPNs 18TFX-028, -062A, -072, and 18SMP-737. Previously unrepresented existing emissions of PM are included in EPN 18TFX-072.

**MISCELLANEOUS SECTION:**
Is applicant in agreement with special conditions? ..... Yes
Company representative? ..... Dave Childs

Tony Munoz 8/3/08 Catina A. Lemm 8/15/08

Permit Reviewer Date Team Leader/Section Manager/Backup Date

SPECIAL CONDITIONS

Permit Number 20011

EMISSION STANDARDS

1. This permit authorizes emissions only from those points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates," and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other operating requirements specified in the Special Conditions.

2. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing volatile organic compounds (VOC) at a concentration of greater than one percent are not authorized by this permit unless authorized on the MAERT. Any releases directly to atmosphere from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration greater than one weight percent are not consistent with good practice for minimizing emissions with the exception of releases from those relief devices listed in the attached "List of Exempted C-12 Intermediates Relief Devices" **(05/08)**

FEDERAL APPLICABILITY

3. Tank 18TFL027 shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources promulgated for Volatile Organic Liquid Storage Vessels in 40 CFR Part 60, Subparts A and Kb.

4. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on National Emission Standards for Hazardous Air Pollutants promulgated for Benzene Waste Operations in 40 CFR Part 61, Subparts A and FF. **(05/08)**

5. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on National Emission Standards for Hazardous Air Pollutants for Source Categories promulgated for Organic Liquids Distribution (Non-Gasoline) and Miscellaneous Organic Chemical Manufacturing in 40 CFR Part 63, Subparts A, EEEE and FFFF. **(05/08)**

OPERATIONAL STANDARDS

6. Annual production of products from the C-12 Intermediates Unit shall be limited to the representations in the revised confidential information received by the Texas Commission on Environmental Quality (TCEQ) January 30, 2007. Daily production records of CDDT and CDD shall be made and maintained for a period of five years. The records shall be made available to authorized representatives of the TCEQ or local programs upon request. **(05/08)**

7. Piping, Valves, Connectors, Pumps, Agitators, and Compressors - 28VHP

Except as may be provided for in the special conditions of this permit, the following requirements apply to the above-referenced equipment:

A. These conditions shall not apply where the (1) Volatile Organic Compound (VOC) has an aggregate partial pressure or vapor pressure of less than 0.044 pounds per square inch, absolute (psia) at 68°F or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made readily available upon request.

The exempted components may be identified by one or more of the following methods:

(1) piping and instrumentation diagram (PID); or

(2) a written or electronic database.

B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.

C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical. New and reworked buried connectors shall be welded.

D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Difficult-to-monitor and unsafe-to-monitor valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made readily available upon request. The difficult-to-monitor and unsafe-to-monitor valves may be identified by one or more of the methods described in subparagraph A above. If an unsafe-to-monitor component is not considered safe to monitor within a calendar year, then it shall be monitored as soon as possible during safe-to-monitor times. A difficult-to-monitor component for which quarterly monitoring is specified may instead be monitored annually.

E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. Gas or hydraulic testing of the new and reworked piping connections at no less than operating pressure shall be performed prior to returning the components to service or they shall be monitored for leaks using an approved gas analyzer within 15 days of the components being returned to service. Adjustments shall be made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve to seal the line so that no leakage occurs. Except during sampling, both valves shall be closed. If the removal of a component for repair or replacement results in an open-ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 24 hours. If the repair or replacement is not completed within 24 hours, the line or valve must have a cap, blind flange, plug, or second valve installed.

F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture discs, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

A check of the reading of the pressure-sensing device to verify disc integrity shall be performed weekly and recorded in the unit log.

The gas analyzer shall conform to requirements listed in Method 21 of 40 CFR part 60, appendix A. The gas analyzer shall be calibrated with methane. In addition, the response factor of the instrument for a specific VOC of interest shall be determined and meet the requirements of Section 8 of Method 21. If a mixture of VOCs are being monitored, the response factor shall be calculated for the average composition of the process fluid. If a response factor less than 10 cannot be achieved using methane, then the instrument may be calibrated with one of the VOC to be measured or any other VOC so long as the instrument has a response factor of less than 10 for each of the VOC to be measured.

Replacements for leaking components shall be re-monitored within 15 days of being placed back into VOC service.

G. Except as may be provided for in the special conditions of this permit, all pump, compressor, and agitator seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. These seal systems may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.

H. Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump, compressor, and agitator seals found to be emitting VOC in excess of 2,000 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A first attempt to repair the leak must be made within 5 days. Records of the first attempt to repair shall be maintained.

I. Every reasonable effort shall be made to repair a leaking component, as specified in this paragraph, within 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging within 15 days of the detection of the leak. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC 115.782 (c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shutdown as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I), the TCEQ Regional Manager and any local programs shall be notified and may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.

J. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. Records of physical inspections shall be noted in the operator's log or equivalent.

K. Alternative monitoring frequency schedules of 30 TAC §§ 115.352 - 115.359 or National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart H, may be used in lieu of Items F through G of this condition.

L. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable New Source Performance Standard (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS) and does not constitute approval of alternative standards for these regulations. **(05/08)**

8. The response factor of the gas analyzer for a specific VOC of interest as specified in paragraph 7F shall be determined by October 1, 2008. **(05/08)**

9. Storage tanks are subject to the following requirements. The control requirements specified in paragraphs A-D of this condition shall not apply (1) where the VOC has an aggregate partial pressure of less than 0.50 psia at the maximum feed temperature or 95F, whichever is greater, or (2) to storage tanks smaller than 25,000 gallons. **(05/08)**

A. An internal floating deck or "roof" or equivalent control shall be installed in all tanks. The floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof: (1) a liquid-mounted seal, (2) two continuous seals mounted one above the other, or (3) a mechanical shoe seal.

B. An open-top tank containing a floating roof (external floating roof tank) which uses double seal or secondary seal technology shall be an approved control alternative to an internal floating roof tank provided the primary seal consists of either a mechanical shoe seal or a liquid-mounted seal and the secondary seal is rim-mounted. A weathershield is not approvable as a secondary seal unless specifically reviewed and determined to be vapor-tight.

C. For any tank equipped with a floating roof, the permit holder shall perform the visual inspections and seal gap measurements as specified in Title 40 Code of Federal Regulations § 60.113b (40 CFR § 60.113b) Testing and Procedures (as amended at 54 FR 32973, Aug. 11, 1989) to verify fitting and seal integrity. Records shall be maintained of the dates seals were inspected and seal gap measurements made, results of inspections and measurements made (including raw data), and actions taken to correct any deficiencies noted.

D. The floating roof design shall incorporate sufficient flotation to conform to the requirements of API Code 650 dated November 1, 1998 except that an internal floating cover need not be designed to meet rainfall support requirements and the materials of construction may be steel or other materials.

E. Uninsulated tank exterior surfaces exposed to the sun shall be white or aluminum. Storage tanks must be equipped with permanent submerged fill pipes.

F. The permit holder shall maintain an emissions record which includes calculated emissions of VOC from all storage tanks during the previous calender month and the past consecutive 12 month period. The record shall include tank identification number, control method used, tank capacity in gallons, name of the material stored, VOC molecular weight, VOC monthly average temperature in degrees Fahrenheit, VOC vapor pressure at the monthly average material temperature in psia, VOC throughput for the previous month and year-to-date. Records of VOC monthly average temperature are not required to be kept for unheated tanks which receive liquids that are at or below ambient temperatures.

Emissions for tanks shall be calculated using: the TCEQ publication titled "Technical Guidance Package for Chemical Sources - Storage Tanks."

G. The permit holder shall maintain a record of tank throughput for the previous month and the past consecutive 12 month period for each tank.

10. Flare (EPN 10FLR-005) shall be designed and operated in accordance with the following requirements: **(05/08)**

A. The flare system shall be designed such that the combined assist natural gas and waste stream to the flare meets the 40 CFR § 60.18 specifications of minimum heating value and maximum tip velocity under normal, upset, and maintenance flow conditions.

The heating value and velocity requirements shall be satisfied during operations authorized by this permit. Flare testing per 40 CFR § 60.18(f) may be requested by the appropriate regional office to demonstrate compliance with these requirements.

B. The flare shall be operated with a flame present at all times and/or have a constant pilot flame. The pilot flame shall be continuously monitored by a thermocouple or an infrared monitor. The time, date, and duration of any loss of pilot flame shall be recorded. Each monitoring device shall be accurate to, and shall be calibrated at a frequency in accordance with, the manufacturer's specifications

C. The flare shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours.

D. The permit holder shall install a continuous flow monitor, hydrogen monitor, and Btu content analyzer that provides a record of the vent stream flow, hydrogen content, and Btu content to the Adiponitrile Flare (EPN 10FLR-005). The flow monitor sensor, hydrogen monitor, and analyzer sample points shall be installed such that the total vent stream to the flare is measured and analyzed. Readings shall be taken at least once every 15 minutes and the average hourly values of the flow, hydrogen content, and Btu content shall be recorded each hour.

The monitors shall be calibrated on an annual basis to meet the following accuracy specifications: the flow monitor shall be ±5.0 percent or ±0.1m/s, whichever is greater; the temperature monitor shall be ±2.0 percent at absolute temperature; the pressure monitor shall be ±5.0 mm Hg. The hydrogen analyzer shall be calibrated, installed, operated, and maintained, in accordance with manufacturer recommendations. The Btu content meter shall be calibrated, installed, operated, and maintained, in accordance with manufacturer recommendations, to continuously measure and record the net heating value of the gas sent to the flare, in British thermal units/standard cubic foot of the gas.

The monitors and analyzers shall operate as required by this section at least 95 percent of the time when the flare is operational, averaged over a rolling 12 month period. Actual exit velocity shall be determined in accordance with 40 CFR §60.18(f)(4).

11. Truck loading emissions shall be vented through a carbon adsorption system (CAS) designated as EPN 07LTR-016 and shall consist of at least two activated carbon beds that are connected in series. **(05/08)**

A. The CAS shall be sampled and recorded once every eighth truck loaded to determine breakthrough of VOC, provided that loading of a trailer occurs during a shift when personnel trained in sampling are working. If not, sampling will be done during the next loading operation when trained personnel are working. The sampling point shall be

located at the outlet of the initial (primary) bed but before the inlet to the second (polishing) bed. Sampling shall be done during operating conditions reflecting maximum emission venting to the CAS.

B. The method of VOC sampling and analysis shall be by flame ionization detector (FID), such as a Century OVA 128 Analyzer, or a TCEQ-approved equivalent. On each day that sampling is required, the FID shall be calibrated prior to sampling with a certified zero gas and certified 95 ppmv span gas.

C. Breakthrough shall be defined as a measured VOC concentration of 10 ppmv measured at the exit of the primary bed. When breakthrough occurs, the primary bed shall be replaced or the polishing bed shall become the primary bed and a new polishing bed placed in series within 72 hours of detection of primary bed breakthrough or loading will be discontinued.

D. Records of the CAS monitoring maintained at the plant site shall include the following:

(1) Sample time and date.

(2) Monitoring results (ppmv).

(3) Corrective action taken including the time and date of that action.

(4) Type of material being loaded into the trailer at time of sampling.

These records shall be made available to TCEQ personnel upon request and shall be retained for at least five years following the date that the data is obtained.

E. As an alternative to sampling, the permittee may elect to automatically change out the beds after every 20 truck loadings.

12. Particulate matter grain loading shall not exceed 0.01 grain per dscf of air from any vent. There shall be no visible emissions exceeding 30 seconds in any six-minute period as determined using U.S. Environmental Protection Agency (EPA) Test Method 22. **(05/08)**

The vents covered by this permit shall not operate unless control devices and associated equipment are maintained in good working order and operating. All vents will be inspected for visible emissions once per day and a spare-parts filter inventory will be maintained on site. Records shall be maintained of all inspections and maintenance performed.

The differential pressure across each baghouse shall be continuously monitored and be recorded at least once an hour.

Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications or at least annually, whichever is more frequent, and shall be accurate to within 0.5 inches water gauge pressure or 0.5% of span.

Quality assured (or valid) data must be generated during normal operations except during the performance of a daily zero check. Loss of valid data due to periods of monitor breakdown, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed five percent of the time (in hours) during normal operations over the previous rolling 12 month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

13. The cooling water (EPN 07CWA-041) shall be monitored monthly for six months and quarterly thereafter to detect leaks from heat exchangers. A minimum of three samples shall be taken at the entrance and each exit of processes Op 11 and Op 12 and analyzed for butadiene in accordance with the requirements of the TCEQ Sampling Procedures Manual, Appendix P (dated January 2003 or a later edition) or another air stripping method approved by the TCEQ Executive Director. **(05/08)**

    A leak shall be defined as the exit mean concentration is greater than the entrance mean concentration using a one-sided statistical procedure at the 0.05 level of significance and the amount by which it is greater is at least 1 part per million or 10 percent of the entrance mean, whichever is greater. The leak shall be repaired as required by 40CFR 63.104(d). Delay of repair shall be allowed provided the requirements of 40 CFR 63.104(3) are satisfied.

14. The permit holder shall maintain and update monthly, an emissions record which includes calculated emissions of VOC from all loading operations over the previous rolling 12 month period. The record shall include the loading spot, control method used, quantity loaded in gallons, name of the liquid loaded, vapor molecular weight, and liquid throughput for the previous month and rolling 12 months to date. Emissions shall be calculated using the TCEQ publication titled "Technical Guidance Package for Chemical Sources - Loading Operations."

    All loading lines and connectors shall be visually inspected for any defects prior to hookup. Loading lines and connectors that are visibly damaged shall be removed from service. Loading operations shall cease immediately upon detection of any liquid leaking from the lines or connections.

15. The Operation 14 Vacuum Jet Vents (EPNs 07VNT-009 through 012) shall be routed to the APH Boilers 3 and 4 (EPN 15STK-006). These boilers are operated under TCEQ Air Quality Permit Number 812.

## LIST OF EXEMPTED C-12 INTERMEDIATES RELIEF DEVICES

| RV I.D. NUMBER | SERVICE |
|---|---|
| 3003 -7012 - 0401 | BD Vaporizer |
| 3007 - 7011 - 20.9 | Trimer Reactor "A" RV |
| 3007 - 7011 - 20.10 | Trimer Reactor "B" RV |
| 3004 - 7011 - 381 | Organic Vapor Header |
| 3004 - 7011 - 382 | Organic Vapor Header |
| 3004 - 7014 - 10.01, 10.02 | Finishing Rx |
| 3005 - 7011 - 0101 | Kill Reactor |
| 3006 - 7010 - 0101 | UM Storage Tank |
| 3006 - 7011 - 1.01 | BTM Storage Tank |
| 3004 - 7011 - 0601 | UM Hold Up Tank |
| 3004 - 7011 - 0701 | BTM Holdup Tank |
| 3007 - 7010 - 0101 | Wiped Film Evaporator |
| 3007 - 7011 - 0101 | WFE Tails Tank |
| 3007 - 7013 - 4.01 | Preflash Sep Vaporizer |
| 3007 - 7014 - 2.04 | Preflash Vacuum System |
| 3008 - 7012 - 0201 | Flare Header Separator |
| 3017 - 7010 - 0101 | Topping Column Op 12 |
| 3017 - 7011 - 0101 | Refiner Column Op 12 |
| 3018 - 7010 - 0109 | Waster Gas Line Op 12 |
| 3018 - 7014 - 0201 | Flash Separator |
| 3018 - 8011 - 201 | Hydrogen Off-Gas Scrubber |
| 3027 - 7010 - 0101 | Flasher Op 13 |
| 3027 - 7010 - 20-1 | No. 2 Flasher Op 13 |
| 3027 - 7011 - 0101 | Slurry Hut Relief Valve |
| 3027 - 7011 - 1001 | No. 2 Slurry Hut Relief Valve |
| 3028 - 7010 - 0101 | Oxidizer No. 1 Op 13 |
| 3028 - 7010 - 20-1 | Oxidizer No. 3 Op 13 |
| 3028 - 7011 - 0101 | Oxidizer No. 2 Op 13 |
| 3028 - 7011 - 20-1 | Oxidizer No. 4 Op 13 |
| 3028 - 7014 - 20-1 | A DCC Blower |
| 3028 - 7014 - 21-1 | B DCC Blower |
| 3028 - 7014 - 22-1 | C DCC Blower |
| 3028 - 7015 - 0401 | DCC Decanter |
| 3029 - 7012 - 10.01 | CAK Decanter |
| 3039 - 7014 - 10 | RDD Hut |
| 3041 - 7100 - 1.01 | Op 14 Jet Vent Separator |
| 3043 - 7010 - 10-1 | No. 2 WAK Hold-Up Tank |
| 3043 - 7010 - 1-1 | No. 1 WAK Hold-Up Tank |
| 3043 - 7011 - 1000 | No. 1 Stripper Op 14 |

| | |
|---|---|
| 3043 - 7011 - 20-1 | No. 2 Stripper OP 14 |
| 3043 - 7012 - 0101 | Refiner Op 14 |
| 3043 - 7016 - 0101 | Topper Op 14 |
| 3043 - 7011 - 8.2 | No. 1 Stripper Jet After Condenser |
| 3043 - 7012 - 10.02 | Refiner Jet Condenser |
| 3043 - 7012 - 2802 | Refiner Condenser |
| 3043 - 7016 - 10.02 | Topper Jet Condenser |
| 3007 - 7012 - 03PI | Wfe Jet Decanter |
| 3014 - 7010 - 0102 | CDT Storage Tank |
| 3014 - 7011 - 0102 | A PDT Storage Tank |
| 3015 - 7011 - 0202 | B PDT Storage Tank |
| 3014 - 7011 - 0302 | C PDT Storage Tank |
| 3014 - 7012 - 0102 | Topper Mk Stg. Tank |
| 3014 - 7014 - 0105 | Waste Organics Tank |
| 3014 - 7015 - 0003 | Cod Storage Tank |
| 3014 - 7016 - 0003 | Vch Storage Tank |
| 3017 - 7012 - 02PI | Dist. Jet Decanter |
| 3024 - 7010 - 0104 | A CDD Receiver |
| 3024 - 7010 - 0204 | B CDD Receiver |
| 3024 - 7011 - 0104 | CDD Storage Tank |
| 3039 - 7011 - 0103 | F- Pak-Receiver |
| 3039 - 7015 - 0102 | A Pak Receiver |
| 3039 - 7015 - 0202 | B Pak Receiver |
| 3039 - 7015 - 0302 | C Pak Receiver |
| 3039 - 7016 - 0102 | Pak Hold-Up Tank |
| 3039 - 7019 - 0102 | Aqueous Waste Tank |
| 3041 - 7005 - 0101 | Building Decanter |
| 3043 - 7014 - 0202 | Residue Hold-Up Tank |
| 3039 - 7010 - 0103 | 2nd Stage Decanter |
| 3043 - 7011 - 38.03 | No. 2 Stripper Jet After Condenser |
| HV1716.3 | Preflash Jet Cond Vent |
| HV1716.4 | Preflash Jet Cond Vent |
| HV1102-2 | Dry Sol. Scrubber Vent To FA |
| HV1102-3 | Dry Sol. Scrubber Vent To FA |
| HV1426-1 | WFE Jet Cond. Vent To FA |
| HV2068-2 | Refiner Jet Condenser Vent To FA |
| 3201HV1 | DCC Offgas Vent |

Dated August 18, 2008

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 20011

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

AIR CONTAMINANTS DATA

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates * lb/hr | TPY** |
|---|---|---|---|---|
| 10FLR-005 | Adiponitrile Flare (5) | VOC | 12.48 | 7.09 |
| | | $NO_x$ | 10.97 | 7.69 |
| | | CO | 54.79 | 38.34 |
| | | $NH_3$ | 1.01 | 0.57 |
| 07TFX-005 | No. 1 WAK HUT | VOC | 8.94 | 1.41 |
| 07TFX-005A | No. 2 WAK HUT | VOC | 21.13 | 2.50 |
| 07VNT-008 | Filter Jet Vent | $NO_x$ | 5.80 | 25.30 |
| | | CO | 0.18 | 0.81 |
| 07FLT-013 | Crude Filter Vent | $NO_x$ | 0.30 | 1.30 |
| | | CO | 0.03 | 0.12 |
| 07LTR-016 | Op. 11-12 Truck Loading | VOC | 0.01 | 0.01 |
| 07LTR-015A | CDD andCDDA/K Truck Loading | VOC | 1.40 | 1.05 |
| 07TFX-023 | DCC Decanter | VOC | 2.96 | 2.00 |
| 07TFX-024 | 2nd Stage Decanter | VOC | 21.08 | 4.06 |
| 07TFX-025 | NVR Residue Tank | VOC | 3.40 | 0.13 |
| 07TFX-026A | DBW Tank A | VOC | 0.01 | 0.01 |
| | | $NO_x$ | 0.01 | 0.01 |
| | | $HNO_3$ | 0.01 | 0.01 |

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates * lb/hr | TPY** |
|---|---|---|---|---|
| 07TFX-026B | DBW Tank B | VOC | 0.01 | 0.01 |
| | | $NO_x$ | 0.01 | 0.01 |
| | | $HNO_3$ | 0.01 | 0.01 |
| 07FLT-028 | DDDA Rework Filter | PM | 3.50 | 0.30 |
| 07VNT-029 | Op. 15 Backup Vent (6) | $NO_x$ | 0.04 | 0.20 |
| | | CO | 0.39 | 1.69 |
| | | $SO_2$ | 0.01 | 0.04 |
| 07TFX-032A | PDT (CDDT) Receiver A | VOC | 1.80 | 0.40 |
| 07TFX-032B | PDT (CDDT) Receiver B | VOC | 1.80 | 0.40 |
| 07TFX-032C | PDT (CDDT) Receiver C | VOC | 1.80 | 0.40 |
| 07TFX-032D | PDT (CDDT) Receiver D | VOC | 1.80 | 0.40 |
| 07TFX-032E | PDT (CDDT) Receiver E | VOC | 1.80 | 0.40 |
| 07TFX-032F | PDT Shore Tank | VOC | 0.42 | 0.23 |
| 07TFX-033A | CDD Receiver A | VOC | 0.94 | 0.47 |
| 07TFX-033B | CDD Receiver B | VOC | 0.94 | 0.47 |
| 07TFX-034 | CDD Storage Tank | VOC | 11.06 | 0.85 |
| 07TFX-035 | Scaletrol PDC9353 Tank | VOC | 0.14 | 0.01 |
| 07TFX-036 | OptiSperse CL2000 Tank | VOC | 0.05 | 0.01 |
| 07TFX-037A | PAK Receiver A | VOC | 4.42 | 0.23 |
| 07TFX-037B | PAK Receiver B | VOC | 4.42 | 0.23 |

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates * lb/hr | TPY** |
|---|---|---|---|---|
| 07TFX-037C | PAK Receiver C | VOC | 4.42 | 0.23 |
| 07TFX-038A | PAK Storage A | VOC | 4.42 | 0.32 |
| 07TFX-038B | PAK Storage B | VOC | 4.42 | 0.26 |
| 07TFX-040 | Organic HUT | VOC | 36.43 | 6.05 |
| 07TFX-040A | EAW Neutralization Tank | VOC | 0.02 | 0.01 |
| 07CWA-041 | Cooling Water | VOC | 0.84 | 2.39 |
| 07VNT-045 | H2 Separator Vent | VOC | 0.90 | 3.94 |
| 07TFX-051 | Op. 11 Organic Hut | VOC | 0.06 | 0.03 |
| 07TFX-053 | WFE Jet Tank | VOC | 0.01 | 0.01 |
| 07TFX-054 | Clean Out Drum | VOC | 0.01 | 0.01 |
| 07TFX-054A | Inhibitor Tank | VOC | 0.01 | 0.01 |
| 07TFX-057 | Op. 14 Aqueous Waste Decanter | VOC | 8.84 | 2.33 |
| 07TFX-058 | Op. 14 Building Decanter | VOC | 0.02 | 0.01 |
| 18TFL-027 | Class "A" Waste Tank | VOC | 0.16 | 0.74 |
| 18TFX-028 | B Aqueous Waste Tank | VOC<br>$HNO_3$ | 0.01<br>4.32 | 0.01<br>1.18 |
| 18TFL-030 | Class "A" Oil Tank | VOC | 0.03 | 0.04 |

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates * lb/hr | TPY** |
|---|---|---|---|---|
| 18TFX-061 | CSM Tank | VOC | 0.01 | 0.01 |
| | | $HNO_3$ | 0.72 | 0.23 |
| 07LTR-026C | DBW Truck Loading | VOC | 0.01 | 0.01 |
| | | $NO_x$ | 0.01 | 0.01 |
| | | $HNO_3$ | 0.01 | 0.01 |
| 18TFX-062 | Unloading Tank | VOC | 0.01 | 0.01 |
| | | $HNO_3$ | 0.01 | 0.01 |
| 18TFX-062A | RF Separator | VOC | 0.01 | 0.01 |
| | | $HNO_3$ | 0.01 | 0.01 |
| 18SMP-63 | Settler Sump | VOC | 0.01 | 0.01 |
| 18TFL-065 | Class A/B Swing Oil Service | VOC | 0.03 | 0.04 |
| | | $HNO_3$ | 0.08 | 0.22 |
| 18TFX-072 | Waste Collection Tank | VOC | 0.01 | 0.01 |
| | | PM | 0.01 | 0.01 |
| | | $HNO_3$ | 0.01 | 0.01 |
| 18TFX-073 | Waste Equalization Tank | VOC | 0.01 | 0.01 |
| 18SEP-075 | A Tank Oil/Water Separator | VOC | 0.01 | 0.01 |
| 18SMP-736 | Unloading Sump | VOC | 0.01 | 0.02 |
| 18SMP-737 | Acids Waste Sump | VOC | 0.01 | 0.01 |
| | | $HNO_3$ | 0.01 | 0.01 |
| 07SMP-011 | Op. 11 Sump | VOC | 0.01 | 0.01 |
| 07SMP-011A | Op. 11A Sump | VOC | 0.01 | 0.01 |
| 07SMP-012 | Op. 12 Sump | VOC | 0.01 | 0.01 |

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates * lb/hr | TPY** |
|---|---|---|---|---|
| 07SMP-013 | Op. 13 Sump | VOC | 0.01 | 0.01 |
| 07SMP-014 | Op. 14 Sump | VOC | 0.01 | 0.01 |
| 07SMP-015 | Op. 15 and 16 Sumps | VOC | 0.01 | 0.01 |
| | | $HNO_3$ | 0.04 | 0.01 |
| 07SMP-016 | Op. 16 Sump | VOC | 0.01 | 0.01 |
| | | $HNO_3$ | 0.04 | 0.01 |
| 07FUG | Fugitive Emissions (4) | VOC | 6.90 | 30.10 |
| 07TFX-636A | Urea Mix Tank | VOC | 0.02 | 0.01 |
| 07TFX-636 | Urea Solution Tank | VOC | 0.03 | 0.01 |
| 07LTR-025A | NVR Truck Loading | VOC | 0.16 | 0.02 |
| 07LTR-028A | DDDA Transloading | PM | 0.11 | 0.01 |
| 07RSY-026F | DBW H2 Reactor | $NH_3$ | 0.01 | 0.01 |
| | | CO | 0.01 | 0.01 |
| 07DIS-026G | DBW Flash Dryer | $NH_3$ | 0.01 | 0.01 |
| | | CO | 0.01 | 0.01 |
| 07DIS-512 | No. 1 Flash Dryer Vent | VOC | 0.02 | 0.07 |

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources use area name or fugitive source name.
(3) VOC - volatile organic carbons as defined in Title 30 Texas Administrative Code § 101.1
$NO_x$ - total oxides of nitrogen
CO - carbon monoxide
PM - particulate matter
$NH_3$ - ammonia
$HNO_3$ - nitric acid
$H_3BO_3$ - boric acid
(4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
(5) Routine emissions attributable to this facility.
(6) Pilot emissions only

* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

Hrs/year 8,760

** Compliance with annual emission limits is based on a rolling 12-month period.

Dated August 18, 2008