

Appendix A – Air Permits to Be Incorporated into Florida’s SIP

APPENDIX A

**Florida Department of Environmental Protection
Division of Air Resource Management**

**Proposed Revision to Florida’s Pending Excess
Emissions Rule SIP – Facility Permits and
Documentation**

- Appendix A-1 Ascend Performance Materials Operations Final Permit 0330040-076-AC
- Appendix A-2 Mosaic Fertilizer South Pierce Final Permit 1050055-037-AC
- Appendix A-3 Nutrien/White Springs Agricultural Chemicals Final Permit 0470002-132-AC
- Appendix A-4 Tampa Electric Company Polk Final Permit 1050233-050-AC
- Appendix A-5 Trademark Nitrogen Final Permit 0570025-016-AC

Appendix A-1 Ascend Performance Materials



FLORIDA DEPARTMENT OF Environmental Protection

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2600 Blair Stone Road
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Governor

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PERMITTEE

Ascend Performance Materials Operations LLC
Post Office Box 97
Gonzalez, Florida 32560-0097

Authorized Representative:
Matthew D. Stewart, Site Director Pensacola Chemicals

Air Permit No. 0330040-076-AC
Permit Expires: December 31, 2023

Minor Air Construction Permit
Ascend Pensacola Plant
New NO_x Emission Limit Nitric Acid Plant

PROJECT

This is the final air construction permit, which imposes a new nitrogen oxide (NO_x) emission limit on the Nitric Acid Plant. The proposed work will be conducted at the existing Ascend Pensacola Plant, which is a nylon and intermediates chemical manufacturing facility, categorized under Standard Industrial Classification (SIC) Code Nos. 2821, 2824, and 2869. The existing facility is in Escambia County at 3000 Old Chemstrand Road in Cantonment, Florida. The UTM coordinates are Zone 16, 476.0 kilometers (km) East and 3385.2 km North.

This final permit is organized into the following sections: Section 1 (General Information); Section 2 (Administrative Requirements); Section 3 (Emissions Unit Specific Conditions); and Section 4 (Appendices). Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit. As noted in the Final Determination provided with this final permit, only minor changes and clarifications were made to the draft permit.

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida

A handwritten signature in black ink that reads "David Lyle Read". The signature is stylized with a large "D" and a long horizontal stroke.

Digitally signed by David Lyle Read
Date: 2022.09.20 11:38:26 -04'00'

David Lyle Read, P.E., Environmental Administrator
Permit Review Section
Division of Air Resource Management

FINAL PERMIT

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Construction Permit package was sent by electronic mail, or a link to these documents made available electronically on a publicly accessible server, with received receipt requested before the close of business on the date indicated below to the following persons.

Ms. Deborah Grissett, Ascend: (drgrisl@ascendmaterials.com)

Ms. Nichols, Melissa, Ascend: (mnicho@ascendmaterials.com)

Russell Sullivan, Northwest District Office (russell.sullivan@floridadep.gov)

Ms. Amy Hilliard, DEP PRS: Amy.Hilliard@FloridaDEP.gov

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED on
this date, pursuant to Section 120.52(7), Florida Statutes,
with the designated agency clerk, receipt of which is
hereby acknowledged.



Digitally signed by Amy
Hilliard
Date: 2022.09.20 16:26:11
-04'00'

SECTION 1. GENERAL INFORMATION

FACILITY DESCRIPTION

Ascend Performance Materials Operations LLC, Ascend Pensacola Plant (Ascend), manufactures various chemicals and products, including adipic acid, nylon fibers and resins, hexamethylene diamine and maleic anhydride. This includes several raw materials barge, train and truck offloading and storage operations; chemical process plants which make chemical feedstocks, intermediates and nylon resins; a yarn plant which makes finished yarn products; and boilers and a cogeneration unit which provide process steam and plant electricity. Ascend also operates a maleic anhydride facility, which is owned by Huntsman Petrochemical Corporation.

The existing facility consists of the following emissions units (EU).

| EU No. | Brief Description |
|----------------------------------|--|
| <i>Regulated Emissions Units</i> | |
| 014 | Boiler No. 4 |
| 015 | Boiler No. 5 |
| 016 | Boiler No. 6 |
| 003 | Boiler No. 8 |
| 004 | Boiler No. 7 |
| 099 | Boiler No. 9 |
| 076 | Maleic Anhydride (MA) Plant |
| 032 | Cogeneration Plant |
| 060 | Adipic Acid 485 BEPEX Dryer |
| 061 | Adipic Acid Dryer 405-A |
| 062 | Adipic Acid Dryer 405-B |
| 063 | Adipic Acid Dryer 465-A |
| 064 | Adipic Acid Dryer 465-B |
| 079 | Adipic Acid 485 NIRO Dryer |
| 002 | Adipic Acid Process |
| 090 | Adipic Acid Process- Fugitive Emissions |
| 101 | Adipic Acid - Fugitive Emissions (New Equipment) |
| 005 | Vaporizer No. 1 |
| 007 | Vaporizer No. 2 |
| 008 | Vaporizer No. 3 |
| 009 | Vaporizer No. 4 |
| 010 | Vaporizer No. 5 |
| 011 | Vaporizer No. 6 |
| 013 | Vaporizer No. 7 |
| 075 | Vaporizer No. 8 |
| 105 | Vaporizer No. 9 |
| 081 | Continuous Nylon Polymerization Lines |
| 082 | Batch Nylon Polymerization |
| 020 | Cyclohexane Oxidation Process |
| 049 | Hydrogen Generating Plant No. 1 |

SECTION 1. GENERAL INFORMATION

| EU No. | Brief Description |
|---|---|
| 040 | Hexamethylene Diamine Synthesis and Refining |
| 041 | B and C Hexamethylene Diamine Stripper Distillation Column |
| 042 | Nitric Acid Plant |
| 088 | Area 480 KA Expansion |
| 089 | Area 480 KA Expansion- Fugitive Emissions |
| 097 | NSPS Storage Tanks (Methanol) |
| 077 | Dimethyl Ester (DME) Production Unit |
| 103 | Hydrogen Generating Plant No. 2 |
| 104 | Hydrogen Plant No. 2 Flare |
| 108 | Existing Emergency Reciprocating Internal Combustion Engines (RICE) |
| 109 | New Emergency Reciprocating Internal Combustion Engine |
| <i>Unregulated Emissions Units and Activities (see Appendix U, List of Unregulated Emissions Units)</i> | |
| 073 | Abrasive Blast Facility |
| 038 | Research and Development |
| 050 | Adipic Acid Bulk Loading No. 1, Building 346 |
| 110 | Therminol Header and Relief Condenser Fugitive Emissions |

PROPOSED PROJECT

This permitting action will establish a nitrogen oxide (NO_x) emission limit on the Nitric Acid Plant. In particular, the Nitric Acid Plant shall meet a NO_x emission limit, expressed as nitrogen dioxide (NO₂), of 2.6 pounds (lb) per ton of nitric acid produced on a 720-hour consecutive operating days basis. This emission standard will apply at all times, including periods of startup, shutdown and malfunction.

This project will affect the following emissions units.

| EU No. | Emission Unit Description |
|--------|---------------------------|
| 042 | Nitric Acid Plant |

FACILITY REGULATORY CLASSIFICATION

- The facility is a major source of hazardous air pollutants (HAP).
- The facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.
- The facility operates units subject to the New Source Performance Standards (NSPS) of Title 40 Part 60 of the Code of Federal Regulations (40 CFR 60).
- The facility operates units subject to the National Emissions Standards of Hazardous Air Pollutants (NESHAP) of 40 CFR 63.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The permitting authority for this project is the Permit Review Section in the Division of Air Resource Management of the Department of Environmental Protection (Department). The Permit Review Section mailing address is 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Department's Northwest District Office at: 160 West Government Street # 308, Pensacola, Florida 32502.
3. Appendices: The following Appendices are attached as a part of this permit: Appendix A (Citation Formats and Glossary of Common Terms); Appendix B (General Conditions); Appendix C (Common Conditions); Appendix D (Common Testing Requirements); and Appendix E (NSPS Subpart Ga - Standards of Performance for Nitric Acid Plants).
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.
5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
6. Modifications: The permittee shall notify the Compliance Authority upon commencement of construction. No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
7. Construction and Expiration: The expiration date shown on the first page of this permit provides time to complete the physical construction activities authorized by this permit, complete any necessary compliance testing, and obtain an operation permit. Notwithstanding this expiration date, all specific emissions limitations and operating requirements established by this permit shall remain in effect until the facility or emissions unit is permanently shut down. For good cause, the permittee may request that a permit be extended. Pursuant to Rule 62-4.080(3), F.A.C., such a request shall be submitted to the Permitting Authority in writing before the permit expires. [Rules 62-4.070(3) & (4), 62-4.080 & 62-210.300(1), F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Nitric Acid Plant (EU 042)

This section of the permit addresses the following emissions unit.

| EU No. | Emission Unit Description |
|--------|---------------------------|
| 042 | Nitric Acid Plant |

Nitric Acid Plant (EU 042) has a maximum capacity of 1,500 tons per day. Ammonia is oxidized in the presence of a catalyst to form NO_x, which is then converted to nitric acid by a reaction with water.

{Permitting Note: NO_x emissions are controlled by process operating conditions and/or use of a Selective Catalytic Reduction (SCR) NO_x abatement device. Startup, shutdown and malfunction allowance is three hours based on 40 CFR 60, Subpart G. This emissions unit is regulated under applicable portions of 40 CFR 60, Subpart A; and 40 CFR 60, Subpart G – Standards of Performance for Nitric Acid Plants, adopted and incorporated by reference into this permit.}

NO_x EMISSION LIMIT

1. New and Current NO_x Emission Limit: The below table contains the current and new NO_x emission limits to which the EU is subject along with the effective date of each limit (new NO_x emission limit is yellow highlight):

| Pollutant | Emission Limit | Compliance Method | Basis | Effective Date |
|---|---|-------------------|--|-----------------|
| NO _x | 1.5 kg per metric ton (3.0 lb per ton) of 100% HNO ₃ produced ^{1,3} | CEMS | 3-hour | Effective Now |
| | 2.6 lb/ton of 100% HNO ₃ produced ^{2,3} | CEMS | 720-operating hour ⁴ average, rolled hourly (See Specific Condition 4) | January 1, 2023 |
| <div>1. Excludes startup, shutdown, and malfunction. 2. Applicable at all times, including period of startup, shutdown and malfunction. 3. Expressed as NO₂. 4. An operating hour is defined as any hour the Nitric Acid Plant is operating including periods of startup, shutdown, and malfunction.</div> | | | | |

[Application No. 0330040-076-AC; and Rule 62-210.200(PTE) F.A.C; Excess Emissions SIP.]

NO_x EMISSION TESTING AND MONITORING

2. General Emissions Monitoring Requirements: The permittee shall install and operate a NO_x CEMS that meets the emissions monitoring requirements of 40 CFR § 60.73. The permittee shall determine the hourly NO_x emissions rate in units of the applicable emissions limit (lb/ton of 100 percent acid produced). The permittee shall operate the emissions monitoring system during all operating periods including unit startup, shutdown, and malfunction. Monitoring downtime shall be reported in accordance with 40 CFR 60.7. [Application No. 0330040-076-AC and 40 CFR §60.73 and Rule 62-210.200(PTE), F.A.C.]
3. NO_x CEMS: The permittee shall operate and maintain the NO_x CEMS to measure gas concentration and determine NO_x emissions on a lb of NO_x/ton of 100 percent acid produced in accordance with 40 CFR §60.73 (see Appendix E). [Application No. 0330040-076-AC and 40 CFR §60.73 and Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

EMISSIONS CALCULATIONS

4. 720-Operating Hour Rolling Average Emissions Rate: The 720-operating hour emission rate shall be calculated based on the arithmetic average of pounds of NO_x emitted per ton of acid produced values for 720 consecutive operating hours with the production being expressed as 100 percent nitric acid. Compliance is determined by calculating the pound per ton value for the most recent operating hour and then calculating the arithmetic average of that value and the previous 719 operating hours. An operating hour is defined as any hour when the Nitric Acid Plant is operating, including startup, shutdown, and malfunction. The permittee

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Nitric Acid Plant (EU 042)

shall calculate the 720-operating hour rolling average emissions rate in units of the applicable emissions standard (lb NO_x/ton 100 percent acid produced) at the end of each operating hour using all of the quality assured hourly average CEMS data for the previous 720-operating hour period. [Application No. 0330040-076-AC and Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

RECORDKEEPING AND REPORTING

5. Recordkeeping: The permittee shall meet the following recordkeeping requirements:
- (a) For the NO_x emissions rate, you must keep records for, and results of, the performance evaluations of the continuous emissions monitoring systems (NO_x CEMS).
 - (b) You must maintain records of the hours of operation and the calculated emission rate for each operating hour and for each 720-operating hour period.
 - (c) You must maintain records of the following time periods:
 - (1) Times when you were not in compliance with the emissions standards.
 - (2) Times when the pollutant concentration exceeded full span of the NO_x monitoring equipment.
 - (d) You must maintain records of the reasons for any periods of noncompliance and description of corrective actions taken.
 - (e) You must maintain records of any modifications to CEMS which could affect the ability of the CEMS to comply with applicable performance specifications.
- [Application No. 0330040-076-AC]
6. Reporting: For each 720- operating hour period where you were not in compliance with the emissions standard, the following information must be reported within one (1) business day to the Department:
- (a) Time period;
 - (b) NO_x emission rates (lb/ton of acid produced);
 - (c) Reasons for noncompliance with the emissions standard; and
 - (d) Description of corrective actions taken.
- [Application No. 0330040-076-AC; Rule 62-4.160, F.A.C.]