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**PERMITTEE**

BASF Corporation
1101 North Madison Street
Quincy, Florida 32352-9646

Authorized Representative:
Mr. Anthony L. Fedd, Site Manager

Air Permit No. 0390005-015-AC
Permit Expires:

Quincy Operations
Title V Air Construction Permit
Project Name: Installation of Pneumatic Transporters

This is the final air construction permit, which authorizes the installation of pneumatic transporters to replace the existing Horizon Pneumatic transporters. The plant proposes to recycle waste tailings back to the final product through Emissions Unit 024 and will install a larger rotary valve at the bin discharge. The proposed work will be conducted at the BASF Corporation Quincy Operations Plant, which is an Attapulgite Clay and Fullers Earth facility (Standard Industrial Classification No. 3295). The facility is located in Gadsden County at 1101 North Madison Street in Quincy, Florida. The UTM coordinates are Zone 16, 732.6 km East and 3387.5 km North. As noted in the Final Determination provided with this final permit, (no changes / only minor changes and clarifications) were made to the draft permit.

This final permit is organized by the following sections.

Section 1. General Information

Section 2. Administrative Requirements

Section 3. Emissions Unit Specific Conditions

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.

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, 62-213, 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 Pensacola, Florida

(DRAFT)

_____ _____

Rick Bradburn, Air Program Administrator (Date)

## CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination and Final Permit) 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 _____ to the persons listed below.

Mr. Anthony L. Fedd, BASF Corporation: anthony.fedd@basf.com
Mr. Eric S. Barbour, BASF Corporation: eric.barbour@basf.com
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Ms. Katy Forney, U.S. EPA Region 4: forney.kathleen@epamail.epa.gov
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Ms. Barbara Friday, DEP BAR: barbara.friday@dep.state.fl.us (for posting with U.S. EPA, Region 4)
DEP Northwest District Branch Office, Tallahassee

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.

_____ _____

(Clerk) (Date)

## FACILITY AND PROJECT DESCRIPTION

### Existing Facility

The BASF Corporation Quincy Operations processes Attapulgite Clay and Fullers Earth in two major product lines: Granular Processing and Gel Processing. Granular processing essentially consists of crushing, drying, sizing and packing. Gel processing essentially consists of crushing, extruding with additives (magnesium oxide), drying/milling, classifying and packing. The crude clay from the mines is trucked to the facility and either stockpiled by quality or fed directly to a primary crusher. Based on production needs and clay quality, it may be blended by mixing various grades using a front end loader. The clay then is stored under the Granular Storage Shed or the Gel Storage Shed, dependent on the clay quality.

In general, emissions consisting of particulate matter (PM) resulting from clay handling and processing are controlled by baghouses. Some of the natural gas or propane-fired equipment (Granular Clay and Gel Clay fired equipment) emissions are controlled by scrubbers. The existing facility consists of the following emissions units.

**Facility ID No. 0390005**

| ID No. | Emission Unit Description |
|---|---|
| **Gel Clay Production Equipment not subject to NSPS (Baghouses)** | |
| 017 | Mini-U-Gel Truck Loading and Bagging |
| 021 | Coarse Gel West Bagging |
| 022 | East Product Storage Bin |
| 023 | West Product Storage Bin |
| 024 | Miscellaneous Product Storage Bin |
| 025 | Fine Gel Mill Product Collector |
| 026 | Fine Gel Classifier System |
| **Gel Clay Production Equipment subject to NSPS (Baghouses)** | |
| 013 | Fine Grinding |
| 016 | Extrusion Reagent Process |
| 018 | #4 Mill Material Handling |
| 020 | East Bagging and Fugitive Dust |
| 027 | Loadout East Bagging |
| 028 | Classifier Product Bagging |
| **Granular Clay Production Equipment subject to NSPS (Baghouses)** | |
| 011 | #1 Milling Area |
| 031 | Fluid Bed Dryer Material Handling |
| 032 | Reconstitution Area |
| 033 | #1A Mill System |
| 035 | Finishing Area |
| 036 | Granular Packaging Area |
| **Granular Clay Production Equipment not subject to NSPS (Baghouses)** | |
| 029 | North Fluid Bed Dryer |
| 030 | South Fluid Bed Dryer |

| | |
|---|---|
| **Granular Clay Production Equipment not subject to NSPS (Scrubbers)** | |
| 014 | High Temperature Drying Kiln No. 1 |
| 015 | High Temperature Drying Kiln No. 2 |
| **Gel Clay Fired Equipment not subject to NSPS (Scrubbers)** | |
| 002 | Mill #4A Scrubber |
| 008 | Mill #4 Scrubber |
| 019 | Mill #4B Scrubber |
| **ACM Milling Equipment subject to NSPS (Baghouses)** | |
| 038 | ACM Feed Bin |
| 038 | Return Conveyer Exhaust |
| 038 | ACM Mill Receiver Collector |
| 038 | #1 Classifier Feed Bin |
| 038 | Product Bin 400 |
| 038 | Product Bin 405 |
| 038 | Product Bin 410 |
| 038 | Product Bin 600 |
| 038 | Product Bin 700 |
| 038 | Bulk Loadout Exhaust-Truck |
| 038 | Bulk Loadout Exhaust-Rail |
| 038 | Bagger Exhaust |
| 038 | Product Storage Bin and Loading Spout |
| 038 | Receiver Bin Vent |
| **Ultra Fine Grind Equipment subject to NSPS (Baghouses)** | |
| 039 | Receiver Bin Vent |
| 039 | ACM Mill #1 Receiver Collector |
| 039 | ACM Mill #2 Receiver Collector |
| 039 | #2 Classifier Feed Vent |

| ID No. | Unregulated Emission Unit Description |
|---|---|
| 041 | Fugitive Emissions |

## Proposed Project

The Horizon Transporter that was previously connected to Emissions Units 022, 023 and 024, will be replaced by the following:

- Con 100 Transporter to the East Product Storage Bin (EU 022), and Miscellaneous Product Storage Bin (EU 024)
- Con 500 Transporter to EU 022, West Product Storage Bin (EU 023) and Miscellaneous Product Storage Bin (EU 024).
- Cyclonaire Transporter connected to EU 023.

- The plant proposes to recycle waste tailings back to the final product through EU 024 and will install a larger rotary valve at the bin discharge. This will result in an operation increase from 0.2 ton per hour to 10 tons per hour.

The permittee requested that the Visible Emissions (VE) testing frequency be reduced from annually to prior to permit renewal. Emissions Units that are not subject to 40 CFR 60 subpart OOO and have consistently demonstrated low opacity readings will be modified to a VE test frequency from annually to prior to permit renewal.

This project will add or modify the following emissions units.

| **Facility ID No. 0390005** | |
|---|---|
| **ID No.** | **Emission Unit Description** |
| 022 | East Product Storage Bin |
| 023 | West Product Storage Bin |
| 024 | Miscellaneous Product Storage Bin |

## FACILITY REGULATORY CLASSIFICATION

- The facility is not a major source of hazardous air pollutants (HAP).
- The facility has no units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.

1. Permitting Authority: The permitting authority for this project is the Northwest District Air Resource Management Program, Florida Department of Environmental Protection (Department). The District's mailing address is 160 W. Government Street, Suite 308, Pensacola, Florida 32502-5740. All documents related to applications for permits to operate an emissions unit shall be submitted to the District Office.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the District Office at the above address or nwdair@dep.state.fl.us.

3. Appendices: The following Appendices are attached as part of this permit:

    a. Appendix A. Citation Formats and Glossary of Common Terms;

    b. Appendix B. General Conditions;

    c. Appendix C. Common Conditions; and

    d. Appendix D. Common Testing Requirements.

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. Source Obligation:

    (a) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

    (b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

    [Rule 62-212.400(12), F.A.C.]

8. Application for Title V Permit: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V air operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V air operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing

operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the appropriate Permitting Authority with copies to the Compliance Authority. [Rules 62-4.030, 62-4.050, 62-4.220 and Chapter 62-213, F.A.C.]

## A. Gel Clay Production Equipment

This section of the permit addresses the following emissions units.

| ID No. | Emission Unit Description |
|---|---|
| **Gel Clay Production Equipment not subject to NSPS (Baghouses)** | |
| 022 | East Product Storage Bin |
| 023 | West Product Storage Bin |
| 024 | Miscellaneous Product Storage Bin |

The facility proposes to install a Con 100, a Con 500 and a Cyclonaire Pneumatic Transporter as replacements for the Horizon Transporters. The plant proposes to recycle waste tailings back to the final product through EU 024 and will install a larger rotary valve at the bin discharge. This will result in an operation increase from 0.2 ton per hour to 10 tons per hour.

These pneumatic transporters and the rotary valve have no specific requirements under 40 CFR 60 subpart OOO and their installation will not result in an overall emissions increase. Emissions are controlled by dust collectors. Emission limits include 5% opacity (original BACT) and 0.017 gpdscf (applicant's request, used as supporting information in original construction permit applications).

**EQUIPMENT**

1. The permittee is authorized to install the following transporters:

| Type of Transporter | Product Storage Bin | Emissions Unit |
|---|---|---|
| Con 100 | East Product Storage Bin | 022 |
| | Miscellaneous Product Storage Bin | 024 |

| Type of Transporter | Product Storage Bin | Emissions Unit |
|---|---|---|
| Con 500 | East Product Storage Bin | 022 |
| | West Product Storage Bin | 023 |
| | Miscellaneous Product Storage Bin | 024 |

| Type of Transporter | Product Storage Bin | Emissions Unit |
|---|---|---|
| Cyclonaire | West Product Storage Bin | 023 |

[Application No. 0390005-015-AC]

**PERFORMANCE RESTRICTIONS**

2. Permitted Capacity: The maximum process throughput rate shall not exceed the following:

| Emissions Unit | | Operation Rate | |
|---|---|---|---|
| **I.D. No.** | **Description** | **Ton/Hr** | **Ton/Year** |
| 022 | East Product Storage Bin | 25 | 219,000 |
| 023 | West Product Storage Bin | 25 | 219,000 |
| 024 | Miscellaneous Product Storage Bin | 10 | 87,600 |

Based on the flow rate the permittee shall operate only one transporter at a time. [Rule 62-210.200(PTE), F.A.C.]

3. Restricted Operation: The hours of operation of are not limited (8760 hours per year). [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

**EMISSIONS STANDARDS**

4. Emissions Standards:

| Emissions Unit | | Particulate Matter (PM) Limits | | | Visible Emissions (VE) |
|---|---|---|---|---|---|
| **I.D. No.** | **Description** | **gpdscf** | **lbs/hr** | **Ton/Year** | |
| 022 | East Product Storage Bin | 0.017 | 0.2 | 0.9 | VE shall not exceed 5% opacity. |
| 023 | West Product Storage Bin | 0.017 | 0.2 | 0.9 | |
| 024 | Miscellaneous Product Storage Bin | 0.017 | 0.2 | 0.9 | |

[Rule 62-297.620(4), F.A.C., construction permit application 0390005-015-AC]

**TESTING REQUIREMENTS**

5. Initial Compliance Tests: The emissions unit shall be tested to demonstrate initial compliance with the emissions standards for PM and VE. The initial tests shall be conducted within 60 days after achieving permitted capacity, but not later than 180 days after initial operation of the unit. [Rules 62-4.070(3), 62-297.401(c) and 62-297.310(7)(a)1, F.A.C.]

6. Test Requirements: The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required tests. Notification may be sent via e-mail to nwdair@dep.state.fl.us. Tests shall be conducted in accordance with the applicable requirements specified in Appendix D (Common Testing Requirements) of this permit. [Rule 62-297.310(7)(a)9, F.A.C.]

7. Test Methods: Required tests shall be performed in accordance with the following reference methods.

| Method | Description of Method and Comments |
|---|---|
| 5 | Method for Determining Particulate Matter Emissions |
| 9 | Visual Determination of the Opacity of Emissions from Stationary Sources |

The above methods are described in Appendix A of 40 CFR 60 and are adopted by reference in Rules 62-204.800 and 62-297.401, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rules 62-204.800, 62-297.100 and 62-297.401, F.A.C.; and Appendix A of 40 CFR 60]

**MONITORING REQUIREMENTS**

8. The permittee shall maintain a record of baghouse pressure differentials, recording the pressure drops at least at each shift change or every eight hours, whichever is more frequent.
[Rule 624.070(3), F.A.C.; Title V Operation Permit 0390005-002-AV]

## RECORDS AND REPORTS

9. Test Reports: The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Appendix D (Common Testing Requirements) of this permit. For each test run, the report shall also indicate the PM and VE test. [Rule 62-297.310(8), F.A.C.]

10. These emissions units are also subject to **Section 3. B. Common Conditions**.

## B. Common Conditions

This section of the permit addresses the following emissions units.

| Facility ID No. 0390005 | |
|---|---|
| **ID No.** | **Emissions Unit Description** |
| **Gel Clay Production Equipment not subject to NSPS (Baghouses)** | |
| 017 | Mini-U-Gel Truck Loading and Bagging |
| 021 | Coarse Gel West Bagging |
| 022 | East Product Storage Bin |
| 023 | West Product Storage Bin |
| 024 | Miscellaneous Product Storage Bin |
| 025 | Fine Gel Mill Product Collector |
| 026 | Fine Gel Classifier System |
| **Granular Clay Production Equipment not subject to NSPS (Baghouses)** | |
| 029 | North Fluid Bed Dryer |
| 030 | South Fluid Bed Dryer |
| **Granular Clay Production Equipment not subject to NSPS (Scrubbers)** | |
| 014 | High Temperature Drying Kiln No. 1 |
| 015 | High Temperature Drying Kiln No. 2 |
| **Gel Clay Fired Equipment not subject to NSPS (Scrubbers)** | |
| 002 | Mill #4A Scrubber |
| 008 | Mill #4 Scrubber |
| 019 | Mill #4B Scrubber |

The permittee requested the visible emissions testing frequency be reduced from annually to prior to permit renewal. Emissions Units that are not subject to 40 CFR 60 subpart OOO and have consistently demonstrated low opacity readings will be modified to a VE test frequency from annually to prior to permit renewal.

**The following specific conditions apply to the emissions unit(s) listed above:**

1. Previous Permits: This permit supplements all previously issued air construction and operation permits for this emissions unit. Except for the change noted below, the unit remains subject to the conditions of all other legally binding air construction and operating permits. [Rules 62-4.070(3) and 62-210.300(1), F.A.C.]

### EMISSIONS STANDARDS

2. Emissions Standards: Visible emissions and Particulate Matter shall not exceed the following:

| Emissions Unit | | Particulate Matter (PM) Limits | | Visible Emissions (VE) |
|---|---|---|---|---|
| **I.D. No.** | **Description** | **lbs/hr** | **Tons/Year** | |
| 017 | Mini-U-Gel Truck Loading and Bagging | 0.5 | 2.2 | VE shall not exceed 5% opacity |
| 021 | Coarse Gel West Bagging | 0.5 | 1.9 | |
| 022 | East Product Storage Bin | 0.2 | 0.9 | |
| 023 | West Product Storage Bin | 0.2 | 0.9 | |

| | | | | |
|---|---|---|---|---|
| 024 | Miscellaneous Product Storage Bin | 0.2 | 0.9 | |
| 025 | Fine Gel Mill Product Collector | 1.7 | 7.3 | |
| 026 | Fine Gel Classifier System | 0.5 | 2.2 | |
| 029 | North Fluid Bed Dryer | 4.7 | 20.6 | |
| **Emissions Unit** | | **Particulate Matter (PM) Limits** | | **Visible Emissions (VE)** |
| **I.D. No.** | **Description** | **lbs/hr** | **Tons/Year** | |
| 030 | South Fluid Bed Dryer | 4.7 | 20.6 | VE shall not exceed 5% opacity |
| 014 | High Temperature Drying Kiln No. 1 | 4.2 | 18.4 | |
| 015 | High Temperature Drying Kiln No. 2 | 4.4 | 19.3 | |
| 002 | Mill #4A Scrubber | 7.0 | 30.7 | |
| 008 | Mill #4 Scrubber | 7.0 | 30.7 | |
| 019 | Mill #4B Scrubber | 7.0 | 30.7 | |

[Rule 62-297.620(4), F.A.C., permittee request and construction permit application 0390005-015-AC]

## TESTING REQUIREMENTS

3. Compliance Tests: The permittee shall conduct visible emissions tests on each emission unit to demonstrate compliance with the emissions standards. Such tests shall be scheduled and performed within the last 12 months prior to the renewal application due date. Compliance with the PM emission limit may be demonstrated by compliance with the alternative opacity standard of 5%. This PM test waiver does not apply to the initial PM testing for EUs 022, 023 and 024. In the event any emissions unit does not satisfactorily demonstrate compliance with the alternative VE opacity standard, each such emissions unit shall demonstrate compliance with the PM standard by EPA Method 5 within 90 days of the visible emissions test date. [Rule 62-297.310(7)(a)4, and 62-297.620(4), F.A.C.]

4. Test Requirements: The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required tests. Notification may be sent via e-mail to nwdair@dep.state.fl.us. Tests shall be conducted in accordance with the applicable requirements specified in Appendix D (Common Testing Requirements) of this permit. [Rule 62-297.310(7)(a)9, F.A.C.]

5. Test Methods: Required tests shall be performed in accordance with the following reference methods.

| Method | Description of Method and Comments |
|---|---|
| 5 | Method for Determining Particulate Matter Emissions |
| 9 | Visual Determination of the Opacity of Emissions from Stationary Sources |

The above methods are described in Appendix A of 40 CFR 60 and are adopted by reference in Rules 62-204.800 and 62-297.401, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rules 62-204.800, 62-297.100 and 62-297.401, F.A.C.; and Appendix A of 40 CFR 60]

## RECORDS AND REPORTS

6. Test Reports: The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Appendix D (Common Testing Requirements) of this permit. For each test run, the report shall also indicate the PM and VE test. [Rule 62-297.310(8), F.A.C.]