



July 19, 2024

Texas Commission on Environmental Quality
Air Permits Initial Review Team (APIRT), MC-161
P.O. Box 13087
Austin, TX 78711-3087

Re: Corteva Freeport Operations (RN110746757)
Corteva Agriscience LLC (CN601287600)
Dichlorophenol (DCP) Manufacturing Facility
PBR 106.261, 106.262 & 106.472 Registration

To the Air Permits Initial Review Team:

Corteva Agriscience LLC (Corteva) owns the Dichlorophenol (DCP) Manufacturing facility at the Corteva Freeport Operations site located in Freeport, Texas (Brazoria County). The purpose of this registration is to certify the requirements of Permit by Rule (PBR) §106.261, §106.262, and §106.472 authorizing the operation of unloading phenol from railcars at the DCP Manufacturing facility. The facility impacted by this project is currently authorized under NSR Permit No. 98806.

The following attachments are being included in this submittal:

- PI-7-CERT Form
- §106.4 Checklist
- §106.261 Checklist
- §106.262 Checklist
- §106.472 Checklist
- Table 1(a) – Emission Point Summary
- Fugitive Emissions Workbook
- 106.261 and 106.262 Single Project Workbook
- Emission Calculations (**CONFIDENTIAL**)

In addition, Corteva has included in this application information which has been marked as “**CONFIDENTIAL**” that is being submitted as a separate attachment.

If you have any questions or require any additional information, please contact Ms. Sharareh Rafati at (979) 292-6711 or Sharareh.Rafati@corteva.com.

Sincerely,

Sharareh Rafati

Sharareh Rafati
Environmental Specialist
Corteva Agriscience LLC

cc: Director of Environmental Health, Brazoria County Health Department



Corteva Agriscience LLC (CN601287600)
Corteva Freeport Operations (RN110746757)
Dichlorophenol (DCP) Manufacturing Facility
PBR 106.261, 106.262 & 106.472 Registration
July 2024

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Project Information

Overview

Corteva Agriscience LLC (Corteva) currently owns a Dichlorophenol (DCP) Manufacturing facility at their site located in Freeport, Texas. This project is proposing to authorize unloading of 85,000 pounds of phenol per day for a maximum of 14 days each year into the onsite phenol storage tank (D-4100). The phenol rail car unloading will occur in emergencies when the plant cannot receive phenol through pipeline.

Affected Sources

The following table lists the affected sources (EPN) associated with this project:

FIN	EPN	Description
A32DCLR410	A32STHROX / A32TO560	Phenol Railcar Unloading
A32DCFU430	A32FU4300	Fugitives for DCP Plant
A32CSTO500 / A32CSSTO560	A32STHROX / A32TO560	THROX/TOX

Impacts on Associated Facilities

There will be no increases to actual raw material usage or production for the site; therefore, there are no upstream or downstream impacts associated with this permit registration.

MSS Emissions

This project does not address any MSS activities. Any future MSS activities will be addressed using either the PBR 106.263 registration or the NSR Permit No. 98806.

Air Pollution Watch List

This project will not have any emissions of arsenic, cobalt, nickel, or vanadium with the Brazoria County Air Pollutant Watch List area.

Confidential Information

Confidential information is included with this submittal and has been included in the appendices. This information has been labeled “**CONFIDENTIAL**” as required.

Maintenance of Control Device Effectiveness

This project will not lessen the effectiveness or the destruction removal efficiency DRE of any existing air pollution control device. Compliance with the previously authorized representations of the control device effectiveness will be maintained.

Title V and Other Regulations

The plant is authorized under the Title V Permit No. O-2206. An off-permit notification will be submitted as required.

Process Description

Introduction

The DCP Manufacturing facility is located at the A-3200 block of the Corteva Freeport Operations site in the Plant A complex and serves as a manufacturing plant.

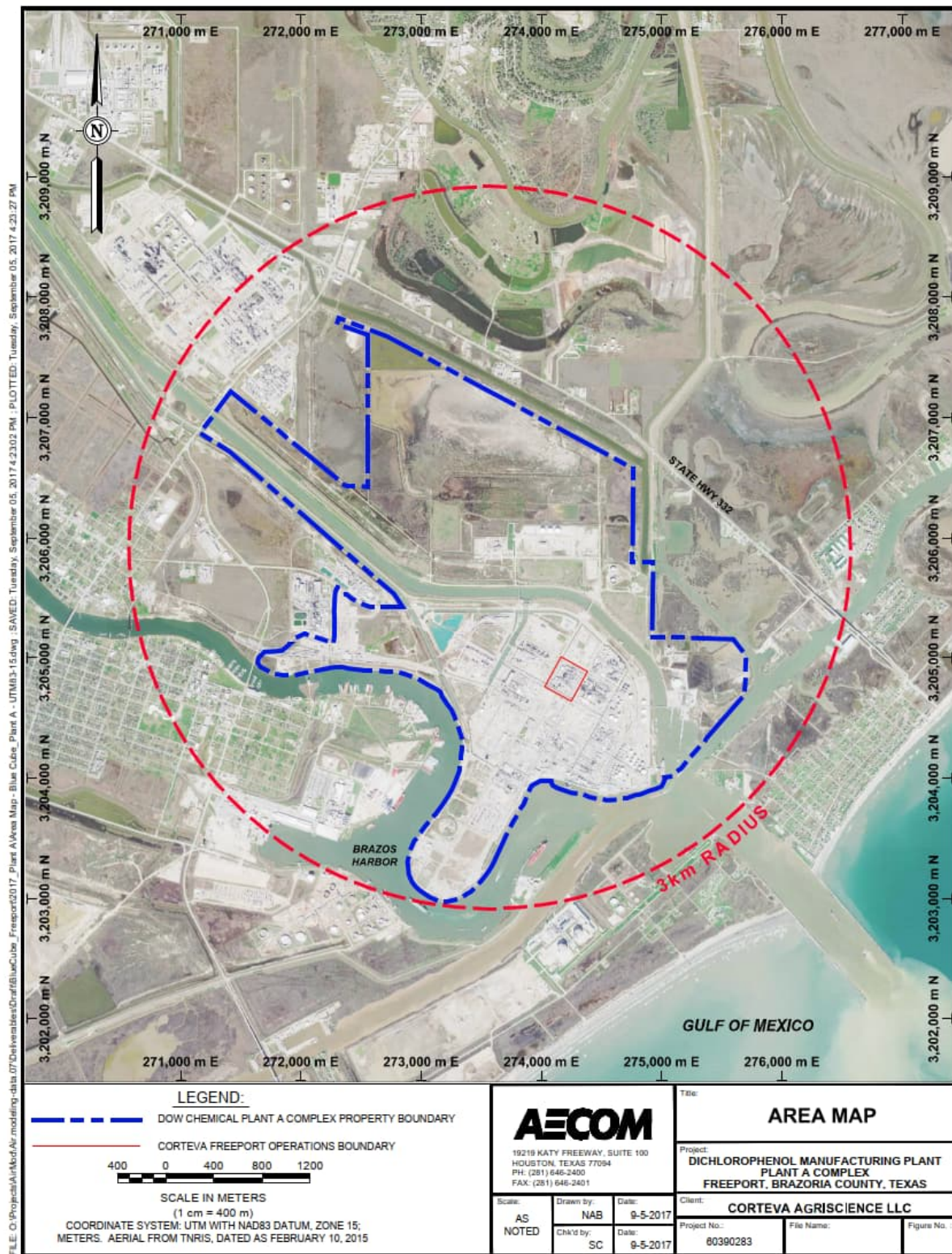
Dichlorophenol (DCP) Manufacturing Facility

Dichlorophenol is produced by chlorinating phenol. The Dichlorophenol product is loaded into rail cars for shipment. The waste product is sent offsite by truck for incineration at a facility authorized to process this type of waste. Vapor balancing is utilized for loading operations to minimize emissions. Loading hoses are cleared back to the originating tanks.

Area Map

Overview

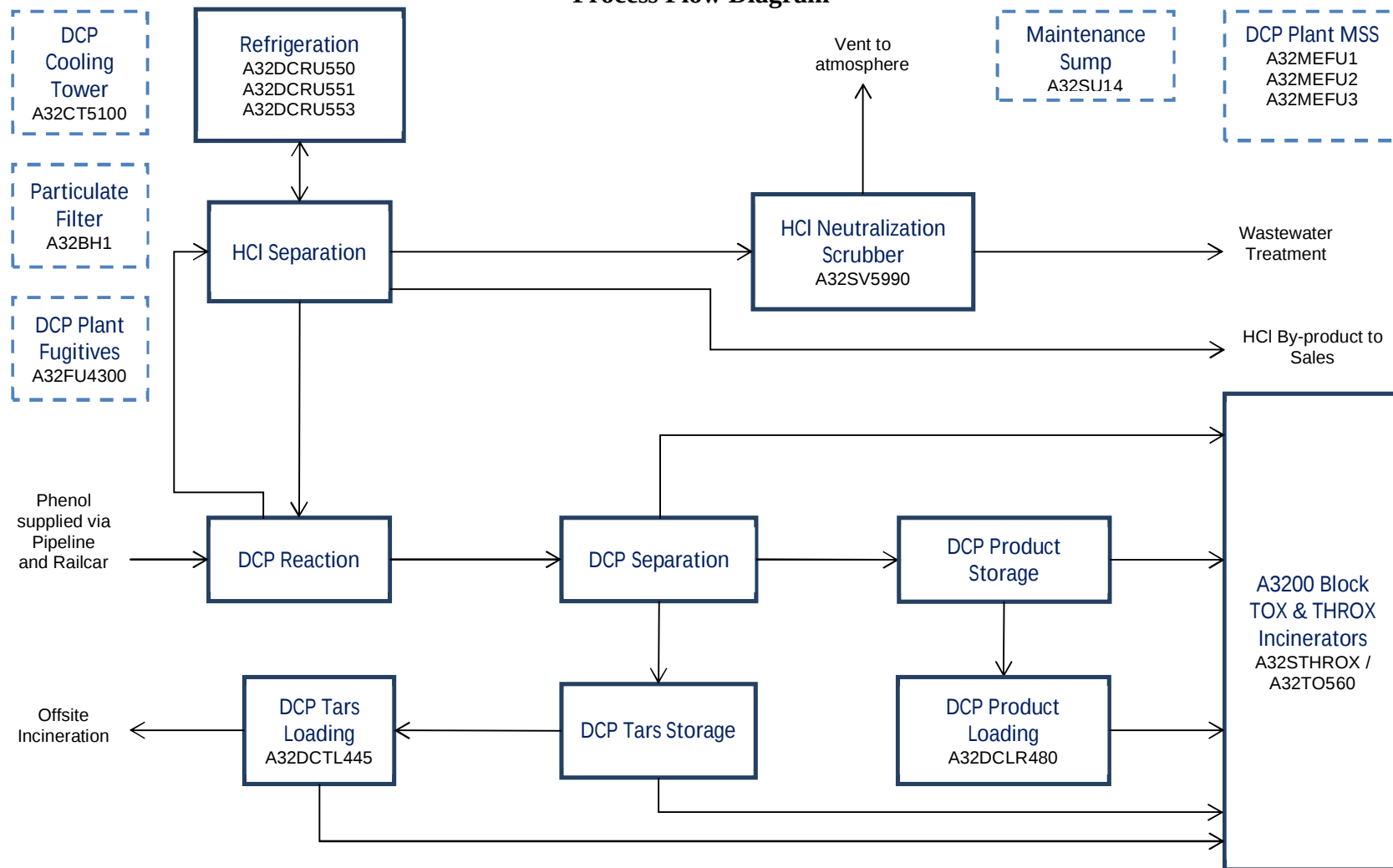
The Area Map for the DCP facility indicates a 3,000-ft radius from the property boundary. There are no schools located within 3,000 ft of these facilities.



Process Flow Diagram

Overview	The following page shows a process flow diagram for the DCP Manufacturing facility.
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Process Flow Diagram



Emission Data and Calculations

Overview	All emission calculations can be found in the CONFIDENTIAL portion of the application.
Phenol Railcar Unloading	The railcar unloading emissions were estimated using the methodology in the U.S. EPA guidance document known as <i>AP-42, Compilation of Air Pollutant Emission Factors for Stationary Sources</i> , Chapter 5, Section 5.2 (Fifth Edition, June 2008). Unloading is based on railcars in dedicated normal service. For an estimation of the hourly emission rate, it is assumed that the entire railcar volume unloading could occur within the same hour. All unloading will take place under hard-piped connections which will result in 100% capture of all emissions and no fugitive losses. The captured loading emissions are routed to the THROX/TOX control device (EPNs A32STHROX / A32TO560) with a 99.95% destruction efficiency.
DCP Plant Fugitives	New and modified piping components to support the railcar unloading of phenol to the phenol storage tank (D-4100) will have additional fugitive equipment components. The additional fugitive equipment components will be in light liquid service, will not contain any ethylene, and will have their emissions based on the 28AVO LDAR monitoring program. The fugitive equipment emission factors and control efficiencies for the selected LDAR program are based on the TCEQ fugitive guidance document (APDG 6422v2, Revised 06/2018).

TCEQ Forms

This section contains the following forms:

- PI-7-CERT Form
- 30 TAC §106.4 Checklist
- 30 TAC §106.261 Checklist
- 30 TAC §106.262 Checklist
- 30 TAC § 106.472 Checklist
- Table 1(a) – Emission Point Summary

Certification and Registration for Permits by Rule
Form PI-7-CERT
Page 1
Texas Commission on Environmental Quality

I. Registrant Information
A. Company or Other Legal Customer Name: Corteva Agriscience LLC
Company Official Contact Information (☒ Mr. ☐ Mrs. ☐ Ms. ☐ Other _____)
Name: John Phillips
Title: Freeport Site Leader
Mailing Address: Building A-3210, 2301 N. Brazosport Blvd.
City: Freeport
State: Texas
ZIP Code: 77541
Phone: (515) 535-1401
Fax:
Email Address: John-Phillips-1@Corteva.com
<i>All PBR registration responses will be sent via email.</i>
A. Technical Contact Information (☐ Mr. ☐ Mrs. ☒ Ms. ☐ Other _____)
Name: Sharareh Rafati
Title: Environmental Specialist
Company Name: Corteva Agriscience LLC
Mailing Address: Building A-3210, 2301 N. Brazosport Blvd.
City: Freeport
State: Texas
ZIP Code: 77541
Phone Number: (979) 292-6711
Fax Number:
Email Address: Sharareh.Rafati@Corteva.com

Certification and Registration for Permits by Rule
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II. Facility and Site Information
A. Name and Type of Facility
Facility Name: Corteva Freeport Operations
Facility Type: ☒ Permanent ☐ Temporary
For portable units, please provide the serial number of the equipment being authorized below.
Serial No(s):
B. Facility Location Information
Street Address: 565 Midway Road, Building A-3210
If there is no street address, provide written driving directions to the site and provide the closest city or town, county, and ZIP code for the site (attach description if additional space is needed).
City: Freeport
County: Brazoria
ZIP Code: 77541
C. TCEQ Core Data Form
Is the Core Data Form (TCEQ Form Number 10400) attached? ☐ YES ☒ NO
If "NO," provide customer reference number (CN) and regulated entity number (RN) below.
Customer Reference Number (CN): 601287600
Regulated Entity Number (RN): 110746757
D. TCEQ Account Identification Number (if known):
E. Type of Action
☒ Initial Application ☐ Change to Registration
For Change to Registration provide the Registration Number:
F. PBR number(s) claimed under 30 TAC Chapter 106
(List all the individual rule number(s) that are being claimed.)
106.261
106.262
106.472
106.

**Certification and Registration for Permits by Rule
Form PI-7-CERT
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II. Facility and Site Information (continued)
G. Historical Standard Exemption or PBR
Are you claiming a historical standard exemption or PBR? ☐ YES ☒ NO
<i>If "YES," enter rule number(s) and associated effective date in the spaces provided below.</i>
Rule Number: Effective Date:
Rule Number: Effective Date:
H. Previous Standard Exemption or PBR Registration Number
Is this authorization for a change to an existing facility previously authorized under a standard exemption or PBR? ☐ YES ☒ NO
<i>If "YES," enter previous standard exemption number(s) and PBR registration number(s) and associated effective dates in the spaces provided below.</i>
Standard Exemption and PBR Registration Number:
Effective Date:
I. Other Facilities at this Site Authorized by Standard Exemption, PBR, or Standard Permit
Are there any other facilities at this site that are authorized by an Air Standard Exemption, PBR, or Standard Permit? ☒ YES ☐ NO
<i>If "YES," enter standard exemption number(s), PBR registration number(s), and Standard Permit registration number(s), and associated effective date in the spaces provided below.</i>
Standard Exemption, PBR Registration, and Standard Permit Registration Number(s): 175948
Effective Date: 05/07/2024
Standard Exemption, PBR Registration, and Standard Permit Registration Number(s):
Effective Date:
Standard Exemption, PBR Registration, and Standard Permit Registration Number(s):
Effective Date:
J. Other Air Preconstruction Permits
Are there any other air preconstruction permits at this site? ☒ YES ☐ NO
<i>If "YES," enter permit number(s) in the spaces provided below.</i>
NSR 98806
K. Affected Air Preconstruction Permits
Does the PBR being claimed directly affect any permitted facility? ☒ YES ☐ NO

Certification and Registration for Permits by Rule
Form PI-7-CERT
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II. Facility and Site Information <i>(continued)</i>	
If "YES," enter the permit number(s) in the spaces provided below.	
NSR 98806	
L. Federal Operating Permit (FOP) Requirements (30 TAC Chapter 122 Applicability)	
1. Is this facility located at a site that is required to obtain an FOP pursuant to 30 TAC Chapter 122?	☒ YES ☐ NO ☐ To Be Determined
If the site currently has an existing FOP, enter the permit number: 2206	
Check the requirements of 30 TAC Chapter 122 that will be triggered if this certification is accepted. <i>(check all that apply)</i>	
☐ Initial Application for a FOP ☐ Significant Revision for an SOP ☐ Minor Revision for an SOP	
☒ Operational Flexibility/Off Permit Notification for an SOP ☐ Revision for a GOP	
☐ To be Determined ☐ None	
2. Identify the type(s) of FOP issued and/or FOP application(s) submitted/pending for the site. <i>(check all that apply)</i>	
☒ SOP review) ☐ GOP ☐ GOP application/revision (submitted or under APD review)	
☐ N/A ☐ SOP application/revision (submitted or under APD review)	
III. Fee Information <i>(See Section VII. for address to send fee or go to www.tceq.texas.gov/epay to pay online.)</i>	
A. Fee Requirements	
Is a fee required per Title 30 TAC § 106.50? ☒ YES ☐ NO	
If "NO," specify the exception. There are three exceptions to paying a PBR fee. <i>(check all that apply)</i>	
1. Registration is solely to establish a federally enforceable emission limit.	☐
2. Registration is within six months of an initial PBR review, and it is addressing deficiencies, administrative changes, or other allowed changes.	☐
3. Registration is for a remediation project (30 TAC § 106.533).	☐
B. Fee Amount	
1. A \$100 fee is required if <i>any</i> of the answers in III.B.1 are "YES."	
This business has less than 100 employees.	☐ YES ☒ NO
This business has less than \$6 million dollars in annual gross receipts.	☐ YES ☒ NO
This registration is submitted by a governmental entity with a population of less than 10,000.	☐ YES ☒ NO
This registration is submitted by a non-profit organization.	☐ YES ☒ NO

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Form PI-7-CERT
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III. Fee Information (See Section VII. for address to send fee or go to www.tceq.texas.gov/epay to pay online.) (continued)	
2. A \$450 fee is required for all other registrations	
A. Payment Information	
Check/money order/transaction or voucher number:	
Individual or company name on check: Corteva Agriscience LLC	
Fee Amount: \$450.00	
Was the fee paid online? ☒ YES ☐ NO	
IV. Technical Information Including State and Federal Regulatory Requirements Check the appropriate box to indicate what is included in your submittal. NOTE: Any technical or essential information needed to confirm that facilities are meeting the requirements of the PBR must be provided. Not providing key information could result in a deficiency of the project.	
A. PBR requirements (Checklists are optional; however, your review will go faster if you provide applicable checklists.)	
Did you demonstrate that the general requirements in 30 TAC § 106.4 are met? ☒ YES ☐ NO	
Did you demonstrate that the individual requirements of the specific PBR are met? ☒ YES ☐ NO	
B Confidential Information Included (If confidential information is submitted with this registration, all confidential pages must be properly marked "CONFIDENTIAL.") ☒ YES ☐ NO	
C. Process Flow Diagram: ☒ YES ☐ NO	
D. Process Description: ☒ YES ☐ NO	
E. Maximum Emissions Data and Calculations: ☒ YES ☐ NO	
Note: If the facilities listed in this registration are subject to the Mass Emissions Cap & Trade program under 30 TAC Chapter 101, Subchapter H, Division 3 , the owner/operator of these facilities must possess NO _x allowances equivalent to the actual NO _x emissions from these facilities.	
F. Is this certification being submitted to certify the emissions for the entire site? ☐ YES ☒ NO	
If "NO," include a summary of the specific facilities and emissions being certified.	
G. Table 1(a) (Form 10153) Emission Point Summary: ☒ YES ☐ NO	
H. Distances from Property Line and Nearest Off-Property Structure	
Distance from this facility's emission release point to the nearest property line:	2,350 feet
Distance from this facility's emission release point to the nearest off-property structure:	4,450 feet

Certification and Registration for Permits by Rule
Form PI-7-CERT
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IV. Technical Information Including State and Federal Regulatory Requirements Check the appropriate box to indicate what is included in your submittal. NOTE: Any technical or essential information needed to confirm that facilities are meeting the requirements of the PBR must be provided. Not providing key information could result in a deficiency of the project.
I. Project Status
Has the company implemented the project or waiting on a response from TCEQ? ☐ Implemented ☒ Waiting
J. Projected Start of Construction and Projected Start of Operation Dates:
Projected Start of Construction (provide date): July 2024
Projected Start of Operation (provide date): July 2024
V. Delinquent Fees
This form will not be processed until all delinquent fees and/or penalties owed to the TCEQ or the Office of the Attorney General on behalf of the TCEQ is paid in accordance with the Delinquent Fee and Penalty Protocol. For more information regarding Delinquent Fees and Penalties, go to the TCEQ website at: www.tceq.texas.gov/agency/financial/fees/delin/index.html .
VI. Signature For Registration and Certification
The signature below confirms that I have knowledge of the facts included in this application and that these facts are true and correct to the best of my knowledge and belief. I further state that to the best of my knowledge and belief, the project for which this application is made will not in any way violate any provision of the Texas Water Code (TWC), Chapter 7; the Texas Health and Safety Code, Chapter 382, the Texas Clean Air Act (TCAA); the air quality rules of the Texas Commission on Environmental Quality; or any local governmental ordinance or resolution enacted pursuant to the TCAA. I further state that I understand my signature indicates that this application meets all applicable nonattainment, prevention of significant deterioration, or major source of hazardous air pollutant permitting requirements. The signature further signifies awareness that intentionally or knowingly making or causing to be made false material statements or representations in the application is a criminal offense subject to criminal penalties.
Name (printed): John Phillips
Signature (original signature required) 
Date: July 19, 2024

Certification and Registration for Permits by Rule
Form PI-7-CERT
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VII. Submitting Copies of the Certification and Registration
Copies must be sent as listed below.
Processing delays may occur if copies are not sent as noted.

Who	Where	What
Air Permits Initial Review Team (APIRT)	Regular, Certified, Priority Mail MC 161, P.O. Box 13087 Austin, Texas 78711-3087 Hand Delivery, Overnight Mail MC 161, 12100 Park 35 Circle, Building C, Third Floor Austin, Texas 78753	Originals Form PI-7-CERT, Core Data Form, and all attachments. Not required if using ePermits1.
Revenue Section, TCEQ	Regular, Certified, Priority Mail MC 214, P.O. Box 13088 Austin, Texas 78711-3088 Hand Delivery, Overnight Mail MC 214, 12100 Park 35 Circle, Building A, Third Floor Austin, Texas 78753	Original Money Order or Check, Copy of Form PI-7-CERT, and Core Data Form. Not required if fee was paid using ePay2.
Appropriate TCEQ Regional Office	To find your Regional Office address, go to the TCEQ website at www.tceq.texas.gov/agency/directory/region , or call (512) 239-1250.	Copy of Form PI-7-CERT, Core Data Form, and all attachments. Not required if using ePermits1
Appropriate Local Air Pollution Control Program(s)	To Find your local or Regional Air Pollution Control Programs go to the TCEQ, APD website at www.tceq.texas.gov/permitting/air/local_programs.html , or call (512)-239-1250	Copy of Form PI-7-CERT, Core Data Form, and all attachments.

1 ePermits located at www3.tceq.texas.gov/steers/
2 ePay located at www.tceq.texas.gov/epay

**Texas Commission on Environmental Quality
Permit by Rule Applicability Checklist
Title 30 Texas Administrative Code § 106.4**

The following checklist was developed by the Texas Commission on Environmental Quality (TCEQ), **Air Permits Division**, to assist applicants in determining whether or not a facility meets all of the applicable requirements. Before claiming a specific Permit by Rule (PBR), a facility must first meet all of the requirements of **Title 30 Texas Administrative Code § 106.4** (30 TAC § 106.4), “Requirements for Permitting by Rule.” Only then can the applicant proceed with addressing requirements of the specific Permit by Rule being claimed.

The use of this checklist is not mandatory; however, it is the responsibility of each applicant to show how a facility being claimed under a PBR meets the general requirements of 30 TAC § 106.4 and also the specific requirements of the PBR being claimed. If all PBR requirements cannot be met, a facility will not be allowed to operate under the PBR and an application for a construction permit may be required under 30 TAC § 116.110(a).

Registration of a facility under a PBR can be performed by completing **Form PI-7** (Registration for Permits by Rule) or **Form PI-7-CERT** (Certification and Registration for Permits by Rule). The appropriate checklist should accompany the registration form. Check the most appropriate answer and include any additional information in the spaces provided. If additional space is needed, please include an extra page and reference the question number. The PBR forms, tables, checklists, and guidance documents are available from the TCEQ, Air Permits Division website at: www.tceq.texas.gov/permitting/air/nav/air_pbr.html.

1. 30 TAC § 106.4(a)(1) and (4): Emission Limits	Answer
List emissions in tpy for each facility (add additional pages or table if needed):	
Are the SO ₂ , PM ₁₀ , VOC, or other air contaminant emissions claimed for each facility in this PBR submittal less than 25 tpy?	☒ YES ☐ NO
Are the NO _x and CO emissions claimed for each facility in this PBR submittal less than 250 tpy?	☒ YES ☐ NO
<i>If the answer to both is “Yes,” continue to the question below. If the answer to either question is “No,” a PBR cannot be claimed.</i>	
Has any facility at the property had public notice and opportunity for comment under 30 TAC Section 116 for a regular permit or permit renewal? (This does not include public notice for voluntary emission reduction permits, grandfathered existing facility permits, or federal operating permits.)	☒ YES ☐ NO
<i>If “Yes,” skip to Section 2. If “No,” continue to the questions below.</i>	
If the site has had no public notice, please answer the following:	
Are the SO ₂ , PM ₁₀ , VOC, or other emissions claimed for all facilities in this PBR submittal less than 25 tpy?	☐ YES ☐ NO
Are the NO _x and CO emissions claimed for all facilities in this PBR submittal less than 250 tpy?	☐ YES ☐ NO
<i>If the answer to both questions is “Yes,” continue to Section 2.</i>	
<i>If the answer to either question is “No,” a PBR cannot be claimed. A permit will be required under Chapter 116.</i>	

Texas Commission on Environmental Quality
Permit by Rule Applicability Checklist
Title 30 Texas Administrative Code § 106.4

2. 30 TAC § 106.4(a)(2): Nonattainment Check	Answer
Are the facilities to be claimed under this PBR located in a designated ozone nonattainment county?	☒ YES ☐ NO
<i>If "Yes," please indicate which county by checking the appropriate box to the right.</i>	
(Moderate) - Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller counties:	☒ HGB
(Moderate) - Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, and Wise counties:	☐ DFW
<i>If "Yes," to any of the above, continue to the next question. If "No," continue to Section 3.</i>	
Does this project trigger a nonattainment review?	☐ YES ☒ NO
Is the project's potential to emit (PTE) for emissions of VOC or NO _x increasing by 100 tpy or more?	☐ YES ☒ NO
<i>PTE is the maximum capacity of a stationary source to emit any air pollutant under its worst-case physical and operational design unless limited by a permit, rules, or made federally enforceable by a certification.</i>	
Is the site an existing major nonattainment site and are the emissions of VOC or NO _x increasing by 40 tpy or more?	☐ YES ☒ NO
<i>If needed, attach contemporaneous netting calculations per nonattainment guidance.</i>	
Additional information can be found at: www.tceq.texas.gov/permitting/air/forms/newsourcereview/tables/nsr_table8.html and www.tceq.texas.gov/permitting/air/nav/air_docs_newsourcereview.html	
<i>If "Yes," to any of the above, the project is a major source or a major modification and a PBR may not be used. A Nonattainment Permit review must be completed to authorize this project. If "No," continue to Section 3.</i>	
3. 30 TAC § 106.4(a)(3): Prevention of Significant Deterioration (PSD) check	
Does this project trigger a review under PSD rules?	
To determine the answer, review the information below:	
Are emissions of any regulated criteria pollutant increasing by 100 tpy of any criteria pollutant at a named source?	☐ YES ☒ NO
Are emissions of any criteria pollutant increasing by 250 tpy of any criteria pollutant at an unnamed source?	☐ YES ☒ NO
Are emissions increasing above significance levels at an existing major site?	☐ YES ☒ NO
PSD information can be found at: www.tceq.texas.gov/assets/public/permitting/air/Forms/NewSourceReview/Tables/10173tbl.pdf and www.tceq.texas.gov/permitting/air/nav/air_docs_newsourcereview.html	
<i>If "Yes," to any of the above, a PBR may not be used. A PSD Permit review must be completed to authorize the project.</i>	
<i>If "No," continue to Section 4.</i>	

**Texas Commission on Environmental Quality
Permit by Rule Applicability Checklist
Title 30 Texas Administrative Code § 106.4**

4. 30 TAC § 106.4(a)(6): Federal Requirements	Answer
Will all facilities under this PBR meet applicable requirements of Title 40 Code of Federal Regulations (40 CFR) Part 60, New Source Performance Standards (NSPS)?	☐ YES ☐ NO ☒ NA
If "Yes," which Subparts are applicable? <i>(answer below.)</i>	
Will all facilities under this PBR meet applicable requirements of 40 CFR Part 63, Hazardous Air Pollutants Maximum Achievable Control Technology (MACT) standards?	☐ YES ☐ NO ☒ NA
If "Yes," which Subparts are applicable? <i>(answer below.)</i>	
Will all facilities under this PBR meet applicable requirements of 40 CFR Part 61, National Emissions Standards for Hazardous Air Pollutants (NESHAPs)?	☐ YES ☐ NO ☒ NA
If "Yes," which Subparts are applicable? <i>(answer below.)</i>	
<i>If "Yes" to any of the above, please attach a discussion of how the facilities will meet any applicable standards.</i>	
5. 30 TAC § 106.4(a)(7): PBR prohibition check	
Are there any air permits at the site containing conditions which prohibit or restrict the use of PBRs?	☐ YES ☒ NO
<i>If "Yes," PBRs may not be used or their use must meet the restrictions of the permit. A new permit or permit amendment may be required.</i>	
List permit number(s):	
6. 30 TAC § 106.4(a)(8): NO_x Cap and Trade	
Is the facility located in Harris, Brazoria, Chambers, Fort Bend, Galveston, Liberty, Montgomery, or Waller County?	☒ YES ☐ NO
<i>If "Yes," answer the question below.</i>	
<i>If "No," continue to Section 7.</i>	
Will the proposed facility or group of facilities obtain required allowances for NO _x if they are subject to 30 TAC Chapter 101, Subchapter H, Division 3 (relating to the Mass Emissions Cap and Trade Program)?	☐ YES ☒ NO

**Texas Commission on Environmental Quality
Permit by Rule Applicability Checklist
Title 30 Texas Administrative Code § 106.4**

7. Highly Reactive Volatile Organic Compounds (HRVOC) check		
Is the facility located in Harris County?	☐ YES ☒ NO	
<i>If "Yes," answer the next question. If "No," skip to the box below.</i>		
Will the project be constructed after June 1, 2006?	☐ YES ☐ NO	
<i>If "Yes," answer the next question.</i>		
<i>If "No," skip to the box below.</i>		
Will one or more of the following HRVOC be emitted as a part of this project?	☐ YES ☐ NO	
<i>If "Yes," complete the information below:</i>		
Information	lb/hr	tpy
▶ 1,3-butadiene		
▶ all isomers of butene (e.g., isobutene [2-methylpropene or isobutylene])		
▶ alpha-butylene (ethylethylene)		
▶ beta-butylene (dimethylethylene, including both cis- and trans-isomers)		
▶ ethylene		
▶ propylene		
Is the facility located in Brazoria, Chambers, Fort Bend, Galveston, Liberty, Montgomery, or Waller County?	☒ YES ☐ NO	
<i>If "Yes," answer the next question. If "No," the checklist is complete.</i>		
Will the project be constructed after June 1, 2006?	☒ YES ☐ NO	
<i>If "Yes," answer the next question. If "No," the checklist is complete.</i>		
Will one or more of the following HRVOC be emitted as a part of this project?	☐ YES ☒ NO	
<i>If "Yes," complete the information below:</i>		
Information	lb/hr	tpy
▶ ethylene		
▶ propylene		

Title 30 Texas Administrative Code § 106.261
Permit By Rule (PBR) Checklist
Facilities (Emission Limitations)
Texas Commission on Environmental Quality

The following checklist is designed to help you confirm that you meet Title 30 Texas Administrative Code § 106.261 (30 TAC § 106.261) requirements. If you do not meet all the requirements, you may alter the project design or operation in such a way that all the requirements of the PBR are met or you may obtain a construction permit. The PBR forms, tables, checklists, and guidance documents are available from the Texas Commission on Environmental Quality (TCEQ) Air Permits Division website at, www.tceq.texas.gov/permitting/air/air_permits.html

For additional assistance with your application, including resources to help calculate your emissions, please visit the Small Business and Local Government Assistance (SBLGA) webpage at the following link: www.TexasEnviroHelp.org

Check the Most Appropriate Answer.

Check The Most Appropriate Answer	Answer
Is a description or checklist of how this claim meets the general requirements for the use of PBRs in 30 TAC § 106.4 attached?	☒ YES ☐ NO ☐ NA
b1 Is this claim for construction of a facility authorized in another section of this chapter or for which a standard permit is in effect?	☐ YES ☒ NO ☐ NA
<i>If YES," this PBR cannot be used to authorize emissions from the project.</i>	☐ YES ☒ NO ☐ NA
b2 Is this claim for any change to any facility authorized under another section of this chapter or authorized under a standard permit?	☐ YES ☒ NO ☐ NA
<i>If "YES," this PBR cannot be used to authorize emissions from the project</i>	
a Does this project represent a physical or operational change to an NSR permitted facility in which the result of the project is an increase in only annual emissions with no impact to the currently authorized hourly emission rate? ³	☐ YES ☒ NO ☐ NA
a1 Are facilities or changes located at least 100 feet from any recreational area or residence or other structure not occupied or used solely by the owner or operator of the facilities or the owner of the property upon which the facilities are located?	☒ YES ☐ NO ☐ NA
a2 Are total new or increased emissions, including fugitives, less than or equal to 6.0 pounds per hour (lb/hr) and ten tons per year of the following materials ⁴	☒ YES ☐ NO ☐ NA

³ Project emission increases associated with a change to a facility that only result in an annual emissions increase can be authorized as part of the PBR claim if the following information is met: 1) the hourly emissions stay at or below current authorized emission limits; 2) there is not a change to any underlying air authorizations for the applicable units associated with BACT or health and environmental impacts; and 3) this claim is certified via PI-7-CERT. The annual emission increases associated with the PBR claim may not circumvent major new source review requirements under 30 TAC Chapter 116.

⁴ Any upstream and/or downstream actual emission increases that result from a project for which this PBR is claimed need to be authorized appropriately. Any associated upstream and/or downstream emissions authorized as part of the PBR claim will need to be included as part of the total new or increased emissions, unless: 1) these emissions stay at or below current authorized emission limits; 2) there is not a change to any underlying air authorizations for the applicable units associated with BACT, health and environmental impacts, or other representations (i.e. construction plans, operating procedures, throughputs, maximum emission rates, etc.); and 3) this claim is certified via PI-7 CERT. Notwithstanding the exclusion of any upstream and/or downstream emissions under this PBR claim, the total of all emission increases, including upstream and/or downstream actual emission increases, are required to be part of the PBR registration to determine major new source review applicability under Title 30 TAC Chapter 116. The emission increases associated with the PBR claim and all upstream and/or downstream actual emission increases may not circumvent major new source review requirements under 30 TAC Chapter 116.

Title 30 Texas Administrative Code § 106.261
Permit By Rule (PBR) Checklist
Facilities (Emission Limitations)
Texas Commission on Environmental Quality

Check All That Apply			
☐ acetylene	☐ cyclopentane	☐ kaolin	☐ propane
☐ alumina	☐ emery dust	☐ limestone	☐ propyl alcohol
☐ argon	☐ ethanol	☐ magnesite	☐ propyl ether
☐ butane	☐ ethyl acetate	☐ marble	☐ propylene
☐ calcium carbonate	☐ ethyl ether	☐ methyl acetylene	☐ silicon
☐ calcium silicate	☐ ethylene	☐ methyl chloroform	☐ silicon carbide
☒ carbon monoxide	☐ glycerin mist	☐ methyl cyclohexane	☐ starch
☐ cellulose fiber	☐ gypsum	☐ neon	☐ sucrose
☐ cement dust	☐ helium	☐ nonane	☐ sulfur dioxide
☐ crude oil	☐ iron oxide dust	☒ oxides of nitrogen	☐ zinc oxide
☐ cyclohexane	☐ isohexane	☐ pentaerythritol	☐ zinc stearate
☐ cyclohexene	☐ isopropyl alcohol	☐ plaster of paris	
☐ refinery petroleum fractions (except for pyrolysis naphthas and pyrolysis gasoline) containing less than ten volume percent benzene			
☐ fluorocarbons Numbers 11, 12, 13, 14, 21, 22, 23, 113, 114, 115, and 116			

Title 30 Texas Administrative Code § 106.261
Permit By Rule (PBR) Checklist
Facilities (Emission Limitations)
Texas Commission on Environmental Quality

Check The Most Appropriate Answer	Answer
a3 Are total new or increased emissions, including fugitives, less than or equal to 1.0 lb/hr of any chemical having a limit value (L) greater than 200 milligrams per cubic meter (mg/m ³) as listed and referenced in Table 262 of 30 TAC § 106.262 of this title (relating to Facilities (Emission and Distance Limitations))? ⁵	☐ YES ☐ NO ☒ NA
List chemical(s):	
L value(s):	
Are total new or increased emissions, including fugitives, less than or equal to 1.0 lb/hr of any chemical not listed or referenced in Table 262? ⁶	☒ YES ☐ NO ☐ NA
List chemical(s): PM / PM ₁₀ / PM _{2.5}	
Are total new or increased emissions, including fugitives, of a chemical with a limit value of less than 200 mg/m ³ ? ⁷	☒ YES ☐ NO ☐ NA
<i>If "YES" the authorization of the chemical is not allowed under this section. We suggest you use 30 TAC § 106.262 to authorize the emissions, if applicable.</i>	
a4 Are there any changes to or additions of any existing air pollution abatement equipment?	☐ YES ☒ NO ☐ NA
a5 Will there be any visible emissions, except uncombined water, emitted to the atmosphere from any point or fugitive source in amounts greater than 5.0% opacity in any six-minute period?	☐ YES ☒ NO ☐ NA
a6 Are emission increases five tons per year or greater?	☐ YES ☒ NO ☐ NA
<i>If "YES," this checklist must be attached to a Form PI-7 within ten days following the installation or modification of the facilities.</i>	
[Note: The notification shall include the 106.261 and 106.262 Workbook, a description of the project, calculations, data identifying specific chemical names, limit values, and a description of pollution control equipment if any.]	
a7 Are emission increases less than five tons per year?	☒ YES ☐ NO ☐ NA
<i>If "YES," this checklist must be attached to a Form PI-7 and include the 106.261 and 106.262 Workbook, a description of the project, calculations, data identifying specific chemical names, limit values, and a description of pollution control equipment if any. (pick one):</i>	
Within ten days following the installation or modification of the facilities. The notification shall include a description of the project, calculations, data identifying specific chemical names, limit values, and a description of pollution control equipment if any	☐
By March 31 of the following year summarizing all uses of this permit by rule in the previous calendar year.	☐

⁵ Same as ²

⁶ Same as ²

⁷ Same as ²

Title 30 Texas Administrative Code § 106.262
Permit by Rule (PBR) Checklist
Facilities (Emission and Distance Limitations)
Texas Commission on Environmental Quality

The following checklist is designed to help you confirm that you meet Title 30 Texas Administrative Code § 106.262 (30 TAC § 106.262) requirements. If you do not meet all the requirements, you may alter the project design or operation in such a way that all the requirements of the PBR are met or you may obtain a construction permit. The PBR forms, tables, checklists, and guidance documents are available from the Texas Commission on Environmental Quality (TCEQ), Air Permits Division website at, www.tceq.texas.gov/nav/permits/air_permits.html.

For additional assistance with your application, including resources to help calculate your emissions, please visit the Small Business and Local Government Assistance (SBLGA) webpage at the following link: www.TexasEnviroHelp.org

Check the Most Appropriate Answer		
Is a description or checklist of how this claim meets the general requirements for the use of PBRs in 30 TAC § 106.4 attached?		☒ YES ☐ NO ☐ N/A
a	Does this project represent a physical or operational change to an NSR permitted facility in which the result of the project is an increase in <i>only</i> annual emissions with no impact to the current authorized hourly emission rate? 8	☐ YES ☒ NO ☐ N/A
b1.	Is this claim for construction of a facility authorized in another section of this chapter or for which a standard permit is in effect? <i>If "YES," this PBR cannot be used to authorize emissions from the project.</i>	☐ YES ☒ NO ☐ N/A
b2.	Is this claim for any change to any facility authorized under another section of this chapter or authorized under a standard permit? <i>If "YES," this PBR cannot be used to authorize emissions from the project.</i>	☐ YES ☒ NO ☐ N/A
c.	Is the facility authorized under another section of this chapter or under a standard permit? <i>If "YES," subsection (a)(2) and (3) of this section may be used to qualify the use of other chemicals at the facility.</i>	☐ YES ☒ NO ☐ N/A
a1.	Are facilities or changes located at least 100 feet from any recreational area or residence or other structure not occupied or used solely by the owner or operator of the facilities or the owner of the property upon which the facilities are located?	☒ YES ☐ NO ☐ N/A
a2.	Are new or increased emissions, including fugitives, emitted in a quantity less than five tons per year or in a quantity less than E as determined by using the equation $E=L/K$? ⁹ See Table 262 Figures 1 and 2. <i>If "YES," the notification shall include the 106.261 and 106.262 Workbook, a description of the project, calculations for all emissions being claimed under this PBR:</i>	☒ YES ☐ NO ☐ N/A
Chemical: Phenol		
L value: 19		
D: 2,350		
K: 11.9		

8 Project emission increases associated with a change to a facility that only result in an annual emissions increase can be authorized as part of the PBR claim if the following information is met: 1) the hourly emissions stay at or below current authorized emission limits; 2) there is not a change to any underlying air authorizations for the applicable units associated with BACT or health and environmental impacts; and 3) this claim is certified via PI-7-CERT. The annual emission increases associated with the PBR claim may not circumvent major new source review requirements under 30 TAC Chapter 116.

9 Any upstream and/or downstream actual emission increases that result from a project for which this PBR is claimed need to be authorized appropriately. Any associated upstream and/or downstream emissions authorized as part of the PBR claim will need to be included as part of the total new or increased emissions, unless: 1) these emissions stay at or below current authorized emission limits; 2) there is not a change to any underlying air authorizations for the applicable units associated with BACT, health and environmental impacts, or other representations (i.e. construction plans, operating procedures, throughputs, maximum emission rates, etc.); and 3) this claim is certified via PI-7 CERT. Notwithstanding the exclusion of any upstream and/or downstream emissions under this PBR claim, the total of all emission increases, including upstream and/or downstream actual emission increases, are required to be part of the PBR registration to determine major new source review applicability under Title 30 TAC Chapter 116. The emission increases associated with the PBR claim and all upstream and/or downstream actual emission increases may not circumvent major new source review requirements under 30 TAC Chapter 116.

Title 30 Texas Administrative Code § 106.262
Permit by Rule (PBR) Checklist
Facilities (Emission and Distance Limitations)
Texas Commission on Environmental Quality

Check the Most Appropriate Answer	
a3. Is this checklist attached to a Form PI-7 within ten days following the installation or modification of the facilities? <i>If "YES," the notification shall include the 106.261 and 106.262 Workbook, a description of the project, calculations, and data identifying specific chemical names, L values, and a description of pollution control equipment, if any.</i>	☒ YES ☐ NO ☐ N/A
a4. Are one or more of the following chemicals is handled for this registration?	☐ YES ☒ NO ☐ N/A
(Check all that apply) <i>If "YES," answer the following four questions.</i>	
☐ acrolein	☐ diazomethane
☐ allyl chloride	☐ diborane
☐ ammonia (anhydrous)	☐ diglycidyl ether
☐ arsine	☐ dimethylhydrazine
☐ boron trifluoride	☐ ethyleneimine
☐ bromine	☐ ethyl mercaptan
☐ carbon disulfide	☐ fluorine
☐ chlorine	☐ formaldehyde (anhydrous)
☐ chlorine dioxide	☐ hydrogen bromide
☐ chlorine trifluoride	☐ hydrogen chloride
☐ chloroacetaldehyde	☐ hydrogen cyanide
☐ chloropicrin	☐ hydrogen fluoride
☐ chloroprene	☐ hydrogen selenide
☐ hydrogen sulfide	☐ ozone
☐ ketene	☐ pentaborane
☐ methylamine	☐ perchloromethyl mercaptan
☐ methyl bromide fluoride	☐ perchloryl
☐ methyl hydrazine	☐ phosgene
☐ methyl isocyanate	☐ phosphine
☐ methyl mercaptan	☐ phosphorus trichloride
☐ nickel carbonyl	☐ selenium
☐ nitric acid stibine	☐ hexafluoride
☐ nitric oxide	☐ liquefied sulfur dioxide
☐ nitrogen dioxide pentafluorid	☐ sulfur
☐ oxygen difluoride	☐ tellurium hexafluoride

Title 30 Texas Administrative Code § 106.262
Permit by Rule (PBR) Checklist
Facilities (Emission and Distance Limitations)
Texas Commission on Environmental Quality

Check the Most Appropriate Answer	
Are all facilities are located at least 300 feet from the nearest property line and 600 feet from any off-plant receptor?	☐ YES ☐ NO ☐ N/A
Are the cumulative amount of any of the following chemicals resulting from one or more authorizations under this section (but not including permit authorizations) less than or equal to 500 pounds on the plant property?	☐ YES ☐ NO ☐ N/A
Are all listed chemicals handled only in unheated containers operated in compliance with the United States Department of Transportation regulation (49 Code of Federal Regulation, Parts 171-178)?	☐ YES ☐ NO ☐ N/A
a5. Are there any changes to or additions of any existing air pollution abatement equipment?	☐ YES ☒ NO ☐ N/A
a6. Will there be any visible emissions, except uncombined water, emitted to the atmosphere from any point or fugitive source in amounts greater than 5.0% opacity in any six-minute period?	☐ YES ☒ NO ☐ N/A

D (feet)	K	Value Description
100	326	E=maximum allowable hourly emission, and never to exceed 6 pounds per hour.
200	200	
300	139	
400	104	
600	65	
700	54	
800	46	K=value from the table on this page. (interpolate intermediate values)
900	39	
1,000	34	
2,000	14	D=distance to the nearest off-plant receptor
3,000 or more	8	

Table 262
Limit Values (L) for use with Exemptions from Permitting § 106.262

The values are not to be interpreted as acceptable health affects values relative to the issuance of any permits under Chapter 116 of this title (relating to Control of Air Pollution by Permits for new Construction or Modification).

Compound	Limit (L) Milligrams Per Cubic Meter
Acetone	590.
Acetaldehyde	9.
Acetone	4.
Acetonitrile	34.
Acetylene	2662.
N-Amyl Acetate	2.7
Sec-Amyl Acetate	1.1
Benzene	3.
Beryllium and Compounds	0.0005
Boron Trifluride, as HF	0.5
Butyl Alcohol,	76.
Butyl Acrylate	19.
Butyl Chromate	0.01
Butyl Glycidyl Ether	30.
Butyl Mercaptain	0.3
Butyraldehyde	1.4
Butyric Acid	1.8
Butyronitrile	22.
Carbon Tetrachloride	12.
Chloroform	10.
Chlorophenol	0.2
Chloroprene	3.6
Chromic Acid	0.01
Chromium Metal, Chromium II and III Compounds	0.1
Chromium VI Compounds	0.01
Coal Tar Pitch Volatiles	0.1
Creosote	0.1
Cresol	0.5
Cumene	50.
Dicyclopentadiene	3.1
Diethylaminoethanol	5.5

Table 262
Limit Values (L) for use with Exemptions from Permitting § 106.262

The values are not to be interpreted as acceptable health affects values relative to the issuance of any permits under Chapter 116 of this title (relating to Control of Air Pollution by Permits for new Construction or Modification).

Compound	Limit (L) Milligrams Per Cubic Meter
Diisobutyl Ketone	63.9
Dimethyl Aniline	6.4
Dioxane	3.6
Dipropylamine	8.4
Ethyl Acrylate	0.5
Ethylene Dibromide	0.38
Ethylene Glycol	26.
Ethylene Glycol Dinitrate	0.1
Ethylidene 2-norbornene, 5	7.
Ethyl Mercaptan	0.08
Ethyl Sulfide	1.6
Glycolonitrile	5.
Halothane	16.
Heptane	350.
Hexanediamine, 1, 6	0.32
Hydrogen Chloride	1.
Hydrogen Fluoride	0.5
Hydrogen Sulfide	1.1
Isoamyl Acetate	133.
Isoamyl Alcohol	15.
Isobutyronitrile	22.
Kepone	0.001
Kerosene	100.
Malononitrile	8.
Mesityl Oxide	40.
Methyl Acrylate	5.8
Methyl Amyl Ketone	9.4
Methyl-T-Butyl Ether	45.
Methyl Butyl Ketone	4.
Methyl Disulfide	2.2

Table 262
Limit Values (L) for use with Exemptions from Permitting § 106.262

The values are not to be interpreted as acceptable health affects values relative to the issuance of any permits under Chapter 116 of this title (relating to Control of Air Pollution by Permits for new Construction or Modification).

Compound	Limit (L) Milligrams Per Cubic Meter
Methylenebis (2-chloroaniline) (MOCA)	0.003
Methylene Chloride	26.
Methyl Isoamyl Ketone	5.6
Methyl Mercaptan	0.2
Merthyl Methacrylate	34.
Methyl Propyl Ketone	530.
Methyl Sulfide	0.3
Mineral Spirits	350.
Naphtha	350.
Nickel, Inorganic Compounds	0.015
Nitroglycerine	0.1
Nitropropane	5.
Octane	350.
Parathion	0.05
Pentane	350.
Perchloroethylene	33.5
Petroleum Ether	350.
Phenyl Mercaptan	0.4
Propionitrile	14.
Propyl Acetate	62.6
Propylene Oxide	20.
Propyl Mercaptan	0.23
Silica-amorphous-precipitated, silica gel	4.
Silicon Carbide	4.

Table 262
Limit Values (L) for use with Exemptions from Permitting § 106.262

The values are not to be interpreted as acceptable health affects values relative to the issuance of any permits under Chapter 116 of this title (relating to Control of Air Pollution by Permits for new Construction or Modification).

Compound	Limit (L) Milligrams Per Cubic Meter
Stoddard Solvent	350.
Styrene	21.
Succiononitrile	20.0
Tolidin	0.02
Trichloroethylene	135.
Trinethylamine	0.1
Valeric Acid	0.34
Vinyl Acetate	15.0
Vinyl Chloride	2.0

Note: The time weighted average (TWA) threshold Limit Value (TLV) published by the American Conference of Governmental Industrial Hygienists (ACGIH), in its TLVs and BEIs guide (1997 Edition) shall be used for compounds not included in the table. The Short-Term Exposure Level (STEL) or Ceiling Limit (annotated with a “C”) published by the ACGIH shall be used for compounds that do not have a published TWA TLV. This section cannot be used if the compound is not listed in the table or does not have a published TWA TLV, STEL, or Ceiling Limit in the ACGIH TLVs and BEIs guide.

**Exemption § 106.472 Checklist
(Previously Standard Exemption 51)
Organic Liquid Loading and Unloading
Texas Commission on Environmental Quality**

The following checklist is designed to help you confirm that you meet § 106.472, previously Standard Exemption 51 (STDX 51), requirements. **Any “no” answers indicate that the claim of registration may not meet all requirements for the use of Exemption § 106.472, previously Standard Exemption 51.** If you do not meet all the requirements, you may alter the project design/operation in such a way that all the requirements of the exemption are met or obtain a construction permit.

For additional assistance with your application, including resources to help calculate your emissions, please visit the Small Business and Local Government Assistance (SBLGA) webpage at the following link:
www.TexasEnviroHelp.org

Please Complete the Following:	
Have you included a description of how this exemption claim meets the general rule for the use of exemptions. (§ 106, Subchapter A checklist is available)?	☒ Yes ☐ No ☐ N/A
Are all the facilities claimed for exemption specifically named in the general section of § 106.472, previously STDX 51?	☒ Yes ☐ No ☐ N/A
Is the equipment designed to prevent visible emissions?	☒ Yes ☐ No ☐ N/A
Are all the chemicals to be loaded, unloaded, or stored described in §106.472 (previously STDX 51a-i)?	☒ Yes ☐ No ☐ N/A
Attach a list of the chemicals and identify the appropriate item of § 106.472, previously STDX 51 that applies.	☒ Yes ☐ No ☐ N/A
Include additional supporting data. For example, a § 106.472, previously STDX 51(i), claim should identify initial boiling points of all compounds to be covered.	☒ Yes ☐ No ☐ N/A
Will aqueous ammonia solutions, hydrochloric acid, or acetic acid be vented through a water scrubber?	☐ Yes ☐ No ☒ N/A
Are facilities loading, unloading, or storing butyric acid, isobutyric acid, methacrylic acid, mercaptans, croton oil, 2-methyl styrene, or any other compound with an initial boiling point of 300 degrees F or greater listed in 40 CFR 261, Appendix VIII, located at least 500 feet from any recreational area or residence or other structure not occupied or used solely by the owner or operator of the facility or the owner of the property upon which the facility is located?	☐ Yes ☐ No ☒ N/A
List these compounds and show their handling location on an attached scaled plot plan.	



Texas Commission on Environmental Quality
Table 1(a) Emission Point Summary

Date:	7/19/2024	Permit No.:		Regulated Entity No.:	RN110746757
Area Name:	Corteva Freeport Operations - Dichlorophenol Manufacturing Facility			Customer Reference No.:	CN601287600

AIR CONTAMINANT DATA					
1. Emission Point			2. Component or Air Contaminant Name	3. Air Contaminant Emission Rate	
EPN	FIN	NAME		Pounds per Hour	TPY
(A)	(B)	(C)		(A)	(B)
A32STHROX / A32TO560	A32CSTO500 / A32CSSTO560	THROX/ TOX	VOC	<0.01	<0.01
			NOx	0.07	<0.01
			CO	<0.01	<0.01
			PM	<0.01	<0.01
			PM10	<0.01	<0.01
			PM2.5	<0.01	<0.01
A32FU4300	A32DCFU430	Fugitives for DCP Plant	VOC	<0.01	<0.01



Texas Commission on Environmental Quality
Table 1(a) Emission Point Summary - Air Contaminant Data

Date:	7/19/2024	Permit No.:		Regulated Entity No.:	RN110746757
Area Name:	Corteva Freeport Operations - Dichlorophenol Manufacturing Facility			Customer Reference No.:	CN601287600

AIR CONTAMINANT DATA			EMISSION POINT DISCHARGE PARAMETERS										
1. Emission Point			4. UTM Coordinates of Emission Point			Source							
EPN (B)	FIN (A)	NAME (C)	Zone	East (Meters)	North (Meters)	5. Building Height (Feet)	6. Height Above Ground (Feet)	7. Stack Exit Data			8. Fugitives		
								Diameter (Feet) (A)	Velocity (fps) (B)	Temperature (°F) (C)	Length (ft.) (A)	Width (ft.) (B)	Axis Degrees (C)
A32STHROX	A32CSTO500	THROX	15	274,117.00	3,204,743.00		49.00	1.00	44.00	155.00			
A32TO560	A32CSSTO560	TOX	15	274,105.00	3,204,751.00		100.00	2.00	11.00	155.00			
A32STHROX / A32TO560	A32DCLR410	Railcar Unloading	15	274,260.00	3,204,910.00		10.00			ambient			
A32FU4300	A32DCFU430	Fugitives for DCP Plant	15	274,204.00	3,204,848.00		10.00				200.00	80.00	



Corteva Agriscience LLC (CN601287600)
Corteva Freeport Operations (RN110746757)
Dichlorophenol (DCP) Manufacturing Facility
PBR 106.261, 106.262 & 106.472 Registration
July 2024

CONFIDENTIAL INFORMATION

Emission Calculations (**CONFIDENTIAL**)

This section contains the following emission calculations:

- Phenol Railcar Unloading (**CONFIDENTIAL**)
- Recuperative Thermal Oxidizer and Thermal Oxidizer (**CONFIDENTIAL**)
- Fugitives for Phenol Railcar Unloading (**CONFIDENTIAL**)