



Blue Cube Operations LLC*
604 Texas Highway 332
Lake Jackson, Texas 77566

June 14, 2024

E-PERMIT SUBMISSION

STEERS MC-226
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087

RE: Unit 5 Vinyl Chloride Plant
Blue Cube Operations LLC*
CN604930784, RN108772245
NSR Permit No. 19041
PBR §106.261 & 262 Registration

Dear Madam or Sir:

Blue Cube Operations LLC* (Blue Cube) is submitting the following Permit by Rule (PBR) §106.261 and 262 registration to authorize fugitive component additions at Blue Cube's Unit 5 Vinyl Chloride Plant located in Freeport, Texas. There will be no production increase or MSS activities associated with this project.

The attachments to this submittal are:

- Form PI-7 CERT
- PBR Fee Information
- §106.4 Demonstration of Compliance
- Process Flow Diagram and Process Description
- Table 1 Emission Limits
- Emission Calculations

Blue Cube has included in this PBR registration information that is confidential. Confidential information is labeled and included in a separate section.

For future correspondence, please contact me at (979) 529-3183 or via email at gshoop@olin.com.

Sincerely,

A handwritten signature in cursive script that reads "Geri Shoop".

Geri Shoop
Air Permit Manager

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

I. Registrant Information		
A. Company or Other Legal Customer Name: Blue Cube Operations LLC (a wholly owned subsidiary of Olin Corporation)		
B. Company Official Contact Information (<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Mrs. <input type="checkbox"/> Ms. <input type="checkbox"/> Other _)		
Name: Gretchen Abney		
Title: Site Leveraged EH&S Leader		
Mailing Address: 604 Highway 332		
City: Lake Jackson	State: TX	ZIP Code: 77566
Phone: (979) 529-3249	Fax: N/A	
E-mail Address: FBCLEHS@Olin.com		
<i>All PBR registration responses will be sent via e-mail unless a hard copy is specifically requested. The company official must initial here if hard copy is requested. _____ (please initial)</i>		
C. Technical Contact Information (<input type="checkbox"/> Mr. <input type="checkbox"/> Mrs. <input checked="" type="checkbox"/> Ms. <input type="checkbox"/> Other _)		
Name: Geri Shoop		
Title: Air Permit Manager		
Company Name: Blue Cube Operations LLC		
Mailing Address: 604 Highway 332		
City: Lake Jackson	State: TX	ZIP Code: 77566
Phone: (979) 529-3183	Fax: N/A	
E-mail: gshoop@olin.com		
II. Facility and Site Information		
A. Name and Type of Facility		
Facility Name: Unit 5 Vinyl Chloride Plant		
Type of Facility:	<input checked="" type="checkbox"/> Permanent	<input type="checkbox"/> Temporary
For portable units, please provide the serial number of the equipment being authorized below.		
Serial No:	Serial No:	
B. Facility Location Information		
Street Address: 2301 N. Brazosport Blvd		
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: 77541-3257

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II. Facility and Site Information <i>(continued)</i>	
C. TCEQ Core Data Form	
Is the Core Data Form (TCEQ Form Number 10400) attached?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
If "NO," provide customer reference number (CN) and regulated entity number (RN) below.	
Customer Reference Number (CN): CN604930784	
Regulated Entity Number (RN): RN108772245	
D. TCEQ Account Identification Number (if known): BL-A044-R	
E. Type of Action:	
<input checked="" type="checkbox"/> Initial Application <input type="checkbox"/> 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.
106.262	106.
106.	106.
G. Historical Standard Exemption or PBR	
Are you claiming a historical standard exemption or PBR?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
If "YES," enter rule number(s) and associated effective date in the spaces provided below.	
Rule Number(s)	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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
If "YES," enter previous standard exemption number(s) and PBR registration number(s), and associated effective dates in the spaces provided below.	
Standard Exemption and PBR Registration Number(s)	Effective Date

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II. Facility and Site Information <i>(continued)</i>	
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?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
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.	
Standard Exemption, PBR Registration, and Standard Permit Registration Number(s)	Effective Date
There are many PBRs and Standard Permits registered at this site. A list can be provided if necessary for review of this project.	
J. Other Air Preconstruction Permits	
Are there any other air preconstruction permits at this site?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
If "YES," enter permit number(s) in the spaces provided below.	
There are many NSR Permits issued for this site. A list can be provided if necessary for review of this project.	
K. Affected Air Preconstruction Permits	
Does the PBR being claimed directly affect any permitted facility?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
If "YES," enter the permit number(s) in the spaces provided below.	
NSR 19041	
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?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> To Be Determined
If the site currently has an existing FOP, enter the permit number: O2204	
Check the requirements of 30 TAC Chapter 122 that will be triggered if this certification is accepted. <i>(check all that apply)</i>	
<input type="checkbox"/> Initial Application for an FOP <input type="checkbox"/> Significant Revision for an SOP <input type="checkbox"/> Minor Revision for an SOP <input type="checkbox"/> Operational Flexibility/Off Permit Notification for an SOP <input type="checkbox"/> Revision for a GOP <input type="checkbox"/> To be Determined <input checked="" type="checkbox"/> 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>	
<input checked="" type="checkbox"/> SOP <input type="checkbox"/> GOP <input type="checkbox"/> GOP application/revision (submitted or under APD review) <input type="checkbox"/> N/A <input type="checkbox"/> SOP application/revision (submitted or under APD review)	

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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.)	
A. Fee Requirements	
Is a fee required per Title 30 TAC § 106.50?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
If "NO," specify the exception. There are three exceptions to paying a PBR fee. (check all that apply)	
1. Registration is solely to establish a federally enforceable emission limit.	<input type="checkbox"/>
2. Registration is within six months of an initial PBR review, and it is addressing deficiencies, administrative changes, or other allowed changes.	<input type="checkbox"/>
3. Registration is for a remediation project (30 TAC § 106.533).	<input type="checkbox"/>
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.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
This business has less than 6 million dollars in annual gross receipts.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
This registration is submitted by a governmental entity with a population of less than 10,000.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
This registration is submitted by a non-profit organization.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
2. A \$450 fee is required for all other registrations.	
C. Payment Information	
Check/money order/transaction or voucher number: Paid using ePay through ePermits	
Individual or company name on check:	
Fee Amount: \$450.00	
Was fee paid online?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
IV. Technical Information Including State And Federal Regulatory Requirements	
Check the appropriate box to indicate what is included in your submittal.	
<i>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 an automatic deficiency and voiding of the project.</i>	
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?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Did you demonstrate that the individual requirements of the specific PBR are met?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
B. Confidential Information Included (If confidential information is submitted with this registration, all confidential pages must be properly marked "CONFIDENTIAL.")	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

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IV. Technical Information Including State And Federal Regulatory Requirements

(continued)

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 an automatic deficiency and voiding of the project.

C. Process Flow Diagram	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
D. Process Description	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
E. Maximum Emissions Data and Calculations	<input checked="" type="checkbox"/> YES <input type="checkbox"/> 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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
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If "NO," include a summary of the specific facilities and emissions being certified.

G. Table 1(a) (Form 10153) Emission Point Summary	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
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H. Distances from Property Line and Nearest Off-Property Structure	
Distance from this facility's emission release point to the nearest property line: _____	435 feet
Distance from this facility's emission release point to the nearest off-property structure: _____	730 feet

I. Project Status	
Has the company implemented the project or waiting on a response from TCEQ?	<input checked="" type="checkbox"/> Implemented <input type="checkbox"/> Waiting

J. Projected Start of Construction and Projected Start of Operation Dates	
Projected Start of Construction (provide date): _____	06/30/2024
Projected Start of Operation (provide date): _____	06/30/2024

V. Delinquent Fees

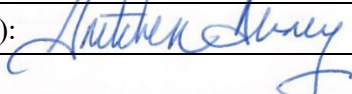
This form **will not be processed** until all delinquent fees and/or penalties owed to the TCEQ or the Office of the Attorney General on behalf of the TCEQ is paid in accordance with the Delinquent Fee and Penalty Protocol. For more information regarding Delinquent Fees and Penalties, go to the TCEQ website at: www.tceq.texas.gov/agency/delin/index.html.

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 Certification and Registration for Permits by Rule
 Form PI-7-CERT
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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): **Gretchen Abney, Site Leverage EH&S Leader**

Signature (original signature required): 

Date: **June 14, 2024**

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 ePermits ¹
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 ePay ² .
Appropriate TCEQ Regional Office	To find your Regional Office address, go to the TCEQ website at www.tceq.texas.gov/publications/gi/gi-002.html , or call (512) 239-1250.	Copy of Form PI-7-CERT, Core Data Form, and all attachments.
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

TCEQ-20182 (APDG 5379v21, Revised 03/18) PI-7-CERT

This form is for use by facilities subject to air quality permit requirements and may be revised periodically.

Blue Cube Operations LLC

Permit by Rule

Unit 5 V-2115 Clearing Line

Unit 5 Vinyl Chloride Plant

June 14, 2024

Permit Fee Information

**Permit fee
submission**

Blue Cube paid the \$450 PBR fee directly to TCEQ's Financial Division using e-Pay through ePermits.

Project Description

Overview	Blue Cube will add fugitive components to the Unit 5 Vinyl Chloride Plant located in Freeport, Texas. The project will install a clearing line between two existing storage tanks. This clearing line will facilitate clearing of one tank to the downstream tank more effectively. The additional components will increase the fugitive emissions for EPN OC5FU7 which is authorized by NSR Permit No. 19041. There are no changes to operating conditions or production rate. The applicable requirements will be maintained, and no new requirements are triggered. There are no MSS emissions or upstream/downstream impacts associated with this project.
Affected sources	The following source EPN is affected by this project: <ul style="list-style-type: none">OC5FU7 – Fugitives
Upstream and downstream impacts	The project will have no upstream or downstream impacts. There is only an increase in fugitive emissions associated with this project.
Impact on central wastewater and solid waste facilities	There will be no impact on the central wastewater treatment facilities or the solid waste facilities.
Emission Calculations	The emission calculations contain confidential information and can be found in the confidential section of this submittal.
MSS Emissions	MSS emissions have not been identified for inclusion in this PBR.
Air Pollutant Watch List	This project occurs within an Air pollutant Watch List area (APL1201), but it does not include any increases or decreases of any pollutant of concern for that area (arsenic, cobalt, nickel or vanadium).
Title V and Other Regulations	This plant is authorized under the Title V Permit O2204. The only affected sources for this project are existing fugitive emission areas, and no new chemicals are introduced so it is exempt from off-permit notification. This exemption is documented in TCEQ’s “Site Operating Permit (SOP) Revision Application Guidance” , APDG 5951v12, Revised 12/17, top of page 7 under “Note” in section VII, part D.

General Information

In this section

The permit by rule requirements specified on Form PI-7 CERT are addressed in this section as follows:

PI-7 CERT Section	Description	See Page
IV	Process Description	4
IV	Process Flow Diagram	6
IV	Regulatory Requirements	7

Process Description

Catalytic Oxidation	Two reactors convert chlorinated byproducts to hydrogen chloride (HCl) gas, water, and carbon dioxide (CO ₂). The effluent from these reactors is cooled and fed directly to oxy-chlorination Train 3.
Oxy Chlorination	The four oxy-chlorination trains react ethylene with oxygen and anhydrous HCl to make ethylene dichloride (EDC). Carbon dioxide and carbon monoxide are also produced along with trace amounts of other chlorinated hydrocarbons (RCL). Process vents generated in Trains 3 and 4 are routed to the Flameless Thermal Oxidizer (FTO) units, and process vents generated in Trains 1 and 2 are sent to the Thermal Oxidizer (THROX) units. EDC produced in this section goes to the EDC drying section.
Direct Chlorination	Off-gases containing ethylene from Trains 1 and 2 are routed to a direct chlorination reactor where they react with chlorine to produce EDC.
EDC Drying	The EDC drying section removes water and lighter components, by distillation, from the EDC produced in the oxy-chlorination section. Dry EDC from this section is sent to the EDC finishing section. Water is sent to the water stripping section. Vents are sent to the THROX units.
EDC Finishing	The EDC finishing section removes heavy and light compounds from the EDC by distillation. The finished EDC is stored and fed to the cracking furnaces. Process vents are routed to the THROX units.
EDC Cracking Furnaces	The furnaces thermally crack EDC to Vinyl Chloride Monomer (VCM) and HCl. The heat source for this reaction is the controlled combustion of fuel gas. EDC is fed to the furnaces and the heat from the cracking process is removed by heat recovery units and heat exchangers. The outlet stream is sent to VCM finishing.
Vinyl Chloride (VCM) Finishing	The VCM finishing section is comprised of two major parts. The crude vinyl section separates VCM from the HCl and EDC. The HCl is sent to the oxy-chlorination section, and VCM is sent to the finishing portion of this section. The other major portion of this section removes impurities from the VCM and prepares the VCM for sales. Process vent streams from this section are sent to THROX units. A VCM storage vessel is also included.
Vent Gas Treatment	<p>Two THROX units incinerate the process vent streams from Vinyl Chloride Unit 5 and Ethylene Dichloride North Process Area (EDCNPA). Vent streams are fed to the THROX units along with necessary air. The effluent gas from each THROX is sent to an HCl absorber tower followed by a chlorine stripper tower where HCL is recovered and residual chlorine is removed. Sodium thiosulfate is used for chlorine abatement.</p> <p>Two FTO units control vents from Catalytic Oxidation and Oxy-chlorination Trains 3 and 4. The effluent gas from each FTO is sent to an HCl absorber tower followed by a chlorine stripper tower where HCL is recovered and residual chlorine is removed. Sodium thiosulfate is used for chlorine abatement. There are two heaters used during startup of the FTOs.</p>

Process Description, Continued

Water Stripping

The water stripping section of the plant recovers chlorinated hydrocarbons from all of the water streams prior to discharge to the wastewater treatment plant or permitted outfall.

Vinyl Chloride Storage and Distribution

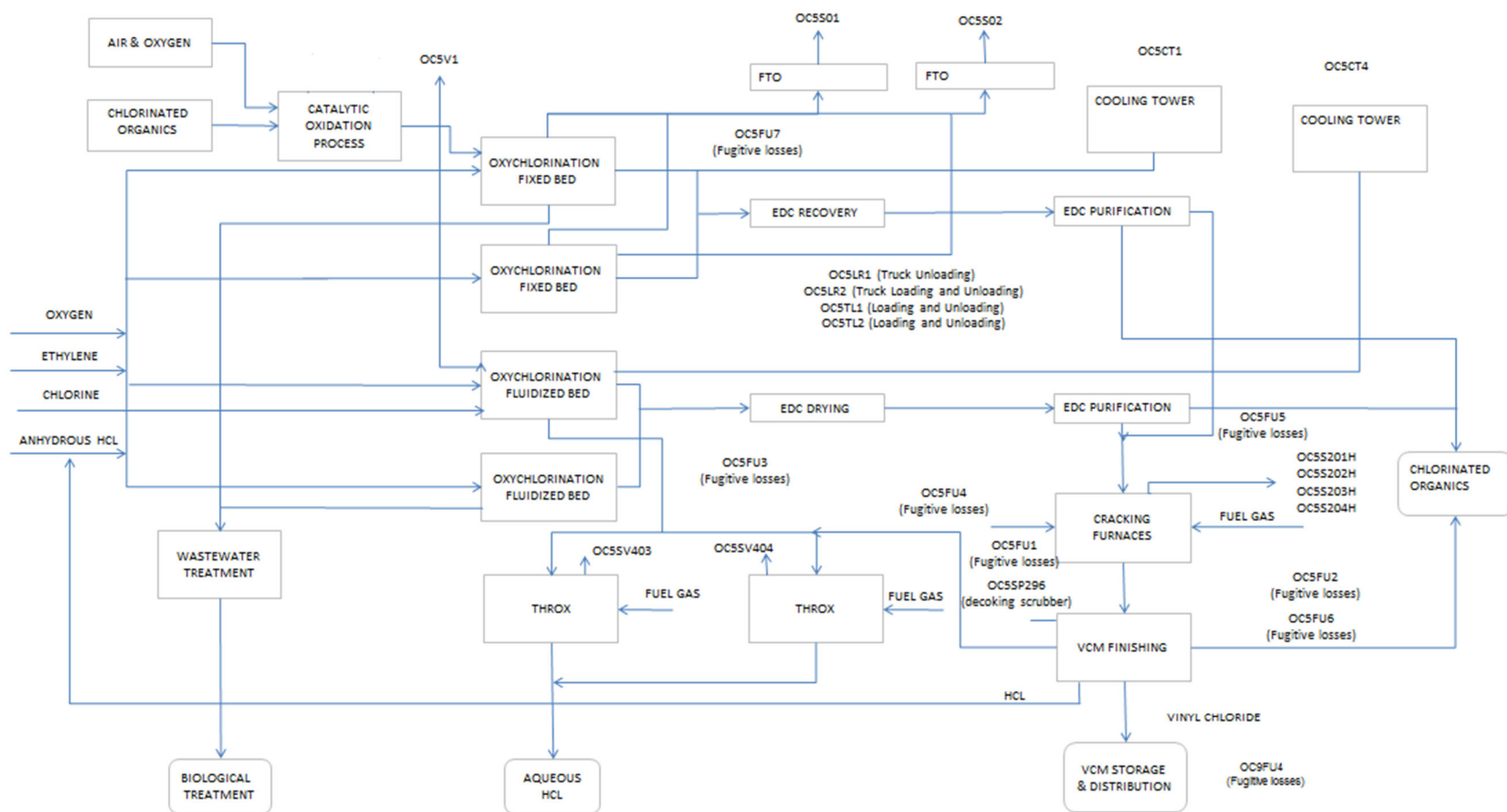
Purified VCM from the finishing section is pumped to storage vessels located in an adjacent process block. VCM can also be pumped from rail cars into these storage vessels. The product is then pumped via pipeline to external customers. Vents from the storage vessels and unloading facilities are sent to the THROX units.

RCL Storage

There are three storage vessels which receive RCL streams. RCLs are fed to the Catalytic Oxidation Section.

Process Flow Diagram

Process Flow Diagram
Unit 5 EDC/VCM PLANT



Regulatory Requirements

In this section

Following is a list of topics in this section:

Description	See Page
§106.4 General Requirements for Permitting by Rule	8

**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	
List emissions in tpy for each facility (add additional pages or table if needed):	
• Are the SO ₂ , PM, VOC, or other air contaminant emissions claimed for each facility in this PBR submittal less than 25 tpy?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
• Are the PM ₁₀ emission less than 15 TPY and are the PM _{2.5} emissions less than 10 TPY for each claimed facility in the PBR submittal?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
• Are the NO _x and CO emissions claimed for each facility in this PBR submittal less than 250 tpy?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> 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.)	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<i>If "Yes," skip to Section 2. If "No," continue to the questions below.</i>	

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

1. 30 TAC § 106.4(a)(1) and (4): Emission Limits (continued)	
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?	<input type="checkbox"/> YES <input type="checkbox"/> NO
• Are the PM ₁₀ emission less than 15 TPY and are the PM _{2.5} emissions less than 10 TPY for all claimed facilities in this PBR submittal?	<input type="checkbox"/> YES <input type="checkbox"/> NO
• Are the NO _x and CO emissions claimed for all facilities in this PBR submittal less than 250 tpy?	<input type="checkbox"/> YES <input type="checkbox"/> 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>	
2. 30 TAC § 106.4(a)(2): Nonattainment Check	
• Are the facilities to be claimed under this PBR located in a designated ozone nonattainment county?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<i>If "Yes," please indicate which county by checking the appropriate box to the right.</i>	
• (Serious) - Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller counties:	<input checked="" type="checkbox"/> HGB
• (Serious) - Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, and Wise counties:	<input type="checkbox"/> DFW
• (Marginal) - Bexar	<input type="checkbox"/> BEXAR
<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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
• Is the project's potential to emit (PTE) for emissions of VOC or NO _x increasing by 50 tpy for Serious Counties, or 100 tpy for Marginal Counties, or more? <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>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
• Is the site an existing major nonattainment site and are the emissions of VOC or NO _x increasing by 25 tpy for Serious Counties, or 40 tpy for Marginal Counties, or more?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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_newsourcel.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>	

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

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?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
• Are emissions of any criteria pollutant increasing by 250 tpy of any criteria pollutant at an unnamed source?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
• Are emissions increasing above significance levels at an existing major site?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<p>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_newsource.html</p> <p><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></p> <p><i>If "No," continue to Section 4.</i></p>	
4. 30 TAC § 106.4(a)(6): Federal Requirements	
• 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)?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NA
<i>If "Yes," which Subparts are applicable?</i>	
• Will all facilities under this PBR meet applicable requirements of 40 CFR Part 63, Hazardous Air Pollutants Maximum Achievable Control Technology (MACT) standards?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> NA
<i>If "Yes," which Subparts are applicable?</i>	
Subpart H	
• Will all facilities under this PBR meet applicable requirements of 40 CFR Part 61, National Emissions Standards for Hazardous Air Pollutants (NESHAPs)?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NA
<i>If "Yes," which Subparts are applicable?</i>	
<i>If "Yes" to any of the above, please attach a discussion of how the facilities will meet any applicable standards.</i>	

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

5. 30 TAC § 106.4(a)(7): PBR Prohibition Check		
<ul style="list-style-type: none"> • Are there any air permits at the site containing conditions which prohibit or restrict the use of PBRs? 		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<p><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></p>		
<ul style="list-style-type: none"> • List permit number(s): 		
6. 30 TAC § 106.4(a)(8): NO_x Cap and Trade		
<ul style="list-style-type: none"> • Is the facility located in Harris, Brazoria, Chambers, Fort Bend, Galveston, Liberty, Montgomery, or Waller County? 		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<p><i>If "Yes," answer the question below. If "No," continue to Section 7.</i></p>		
<ul style="list-style-type: none"> • 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)? 		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
7. Highly Reactive Volatile Organic Compounds (HRVOC) Check		
<ul style="list-style-type: none"> • Is the facility located in Harris County? 		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<p><i>If "Yes," answer the next question. If "No," skip to the box below.</i></p>		
<ul style="list-style-type: none"> • Will the project be constructed after June 1, 2006? 		<input type="checkbox"/> YES <input type="checkbox"/> NO
<p><i>If "Yes," answer the next question. If "No," skip to the box below.</i></p>		
<ul style="list-style-type: none"> • Will one or more of the following HRVOC be emitted as a part of this project? 		<input type="checkbox"/> YES <input type="checkbox"/> NO
<p><i>If "Yes," complete the information below:</i></p>		
	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 transisomers)		
▶ ethylene		
▶ propylene		

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7. Highly Reactive Volatile Organic Compounds (HRVOC) Check (continued)		
<ul style="list-style-type: none"> • Is the facility located in Brazoria, Chambers, Fort Bend, Galveston, Liberty, Montgomery, or Waller County? 	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
<i>If "Yes," answer the next question. If "No," the checklist is complete.</i>		
<ul style="list-style-type: none"> • Will the project be constructed after June 1, 2006? 	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
<i>If "Yes," answer the next question. If "No," the checklist is complete.</i>		
<ul style="list-style-type: none"> • Will one or more of the following HRVOC be emitted as a part of this project? 	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
<i>If "Yes," complete the information below:</i>		
	lb/hr	tpy
▶ ethylene		
▶ propylene		

APPENDICES

In this section

Following is a list of topics in this section:

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Appendix A
Project Summary of Emission Changes

Project Summary of Emission Changes

Plant Name: Blue Cube Operations LLC
Project Name: Unit 5 V-2115 Clearing Line

	CO	NO _x	PM	PM ₁₀	PM _{2.5}	SO ₂	VOC
Total of Increases only	0.00	0.00	0.00	0.00	0.00	0.00	0.003
PSD Significance Levels	100	40	25	15	10	40	
Site Netting Supplied?	NO	NO	NO	NO	NO	NO	
Site Contemporaneous Net	NA	NA	NA	NA	NA	NA	
PSD Applicable?	NO	NO	NO	NO	NO	NO	
NNSR Project Netting Required?		NO					NO
NNSR Net Project Increase		0.00					0.003
NNSR Applicable?		NO					NO

Basis for Determination:

This determination is based on project and AEI information according to TCEQ’s APDG 5881, “Major New Source Review - Applicability Determination” published June, 2017.

Post-Project Maximum Allowable Annual Emissions, T/yr

Emission Units affected by project		CO	NO _x	PM	PM ₁₀	PM _{2.5}	SO ₂	VOC
FIN	EPN							
OC5U5FU7	OC5FU7							2.653

Pre-Project Actual Annual Emissions, T/yr (24 month average)

SUBSTITUTE THE PRECHANGE ALLOWABLE IF IT IS SMALLER THAN THE ACTUAL

Emission Units affected by project		CO	NO _x	PM	PM ₁₀	PM _{2.5}	SO ₂	VOC
FIN	EPN							
OC5U5FU7	OC5FU7							2.650

For fugitive emissions, assumed the pre-project actuals are equal to permit limit.

Changes in Emissions, T/yr

(Post-Project Allowable, T/yr) - (Pre-Project Actual, T/yr)

Emission Units affected by project		CO	NO _x	PM	PM ₁₀	PM _{2.5}	SO ₂	VOC
FIN	EPN							
OC5U5FU7	OC5FU7							3.406E-03

Appendix B

Table 1(a)-Page 1

Table 1(a)-Page 2

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Table 1(a) Emissions Point Summary

Date:	June 14, 2024	Permit Number:	19041	RN Number:	108772245
Area Name:	Unit 5 Vinyl Chloride Plant			CN Number:	604930784

Review of applications and issuance of permits will be expedited by supplying all necessary information requested on this Table.

AIR CONTAMINANT DATA					
1. Emission Point			2. Component or Air Contaminant Name	3. Air Contaminant Emission Rate	
EPN (A)	FIN (B)	NAME (C)		Pound Per Hour [A]	Ton Per Year [B]
OC5FU7	OC5U5FU7	Fugitives	VOC	<0.01	<0.01

Note: These emissions only represent project increases.

TCEQ - 10153 (Revised 04/08) Table 1(a)

This form is for use by sources subject to air quality permit requirements and may be revised periodically. (APDG 5178 v5)

