Texas Commission on Environmental Quality

Title V Existing 2030

ETHYLENE OXIDE / GLYCOL

No

Site Information (Regulated Entity)

What is the name of the permit area to be

authorized?

Does the site have a physical address?

Because there is no physical address, describe 7501 State Hwy 185 N

how to locate this site:

 City
 Seadrift

 State
 TX

 ZIP
 77983

 County
 CALHOUN

 Latitude (N) (##.######)
 28.510277

 Longitude (W) (-###.######)
 96.770833

 Primary SIC Code
 2869

Secondary SIC Code

Primary NAICS Code 325199

Secondary NAICS Code

Regulated Entity Site Information

What is the Regulated Entity's Number (RN)? RN102181526

What is the name of the Regulated Entity (RE)?

UCC SEADRIFT OPERATIONS

Does the RE site have a physical address?

Physical Address

Number and Street 7501 STATE HIGHWAY 185 N

City SEADRIFT

 State
 TX

 ZIP
 77983

 County
 CALHOUN

 Latitude (N) (##.######)
 28.499581

 Longitude (W) (-###.######)
 -96.767508

Facility NAICS Code

What is the primary business of this entity?

CHEMICAL PLANT

Customer (Applicant) Information

How is this applicant associated with this site?

Owner Operator
What is the applicant's Customer Number

CN601688781

(CN)?

Type of Customer Corporation

Full legal name of the applicant:

Legal Name Union Carbide Corporation

Texas SOS Filing Number 1335606
Federal Tax ID 980626782
State Franchise Tax ID 11314217305

State Sales Tax ID

Local Tax ID

DUNS Number 1289008

Number of Employees 101-250

Independently Owned and Operated? No

Responsible Official Contact

Person TCEQ should contact for questions

about this application:

Organization Name THE DOW CHEMICAL COMPANY

Prefix MS

First HEATHER

Middle

Last LYONS

Suffix

Credentials

Title LEAD SITE MANUFACTURING DIRECTOR

Enter new address or copy one from list:

Mailing Address

Address Type Domestic

Mailing Address (include Suite or Bldg. here, if PO BOX 186

applicable)

Routing (such as Mail Code, Dept., or Attn:)

City PORT LAVACA

State TX ZIP 77979

Phone (###-###-###) 3615532769

Extension

Alternate Phone (###-###-###)

Fax (###-###-###)

E-mail HLyons@dow.com

Duly Authorized Representative Contact

Person TCEQ should contact for questions

about this application

Select existing DAR contact or enter a new FERNANDO FROLLINI(UNION CARBIDE C...)

contact.

Organization Name UNION CARBIDE CORPORATION

Prefix MR

First FERNANDO

Middle

Last FROLLINI

Suffix Credentials

Title RESPONSIBLE CARE DIRECTOR

Enter new address or copy one from list

Mailing Address

Address Type Domestic

Mailing Address (include Suite or Bldg, here, if PO BOX 186

applicable)

Routing (such as Mail Code, Dept., or Attn:)

City **PORT LAVACA**

State TX 77979 Zip

Phone (###-###-###) 3615716238

Extension

Alternate Phone (###-###-####)

Fax (###-###-###)

E-mail f.frollini@dow.com

Technical Contact

Person TCEQ should contact for questions

about this application:

Select existing TC contact or enter a new VANESSA PEPPERS(UNION CARBIDE C...)

contact.

Organization Name UNION CARBIDE CORPORATION

Prefix **MRS VANESSA** First

Middle

PEPPERS Last

Suffix Credentials

ENVIRONMENTAL SPECIALIST Title

Enter new address or copy one from list:

Mailing Address

Address Type **Domestic** Mailing Address (include Suite or Bldg. here, if PO BOX 186

applicable)

Routing (such as Mail Code, Dept., or Attn:)

PORT LAVACA City

ΤX State ZIP 77979 3615532174

Phone (###-###-###)

Extension

Alternate Phone (###-###-###)

Fax (###-###-###)

E-mail vpeppers@dow.com

Title V General Information - Existing

1) Permit Type: SOP

2) Permit Latitude Coordinate: 28 Deg 30 Min 37 Sec 3) Permit Longitude Coordinate: 96 Deg 46 Min 15 Sec

4) Is this submittal a new application or an **New Application** update to an existing application?

4.1. What type of permitting action are you Streamlined Revision applying for?

4.1.1. Are there any permits that should be No voided upon issuance of this permit application through permit conversion?

4.1.2. Are there any permits that should be voided upon issuance of this permit application through permit consolidation?

5) Who will electronically sign this Title V application?

6) Does this application include Acid Rain Program or Cross-State Air Pollution Rule requirements?

No

Duly Authorized Representative

N/A

Title V Attachments Existing

Attach OP-1 (Site Information Summary)

Attach OP-2 (Application for Permit Revision/Renewal)

Attach OP-REQ1 (Application Area-Wide Applicability Determinations and General Information)

Attach OP-REQ2 (Negative Applicable Requirement Determinations)

Attach OP-REQ3 (Applicable Requirements Summary)

Attach OP-PBRSUP (Permits by Rule Supplemental Table)

Attach OP-SUMR (Individual Unit Summary for Revisions)

Attach OP-MON (Monitoring Requirements)

Attach OP-UA (Unit Attribute) Forms

If applicable, attach OP-AR1 (Acid Rain Permit Application)

Attach OP-CRO2 (Change of Responsible Official Information)

Attach OP-DEL (Delegation of Responsible Official)

Attach any other necessary information needed to complete the permit.

An additional space to attach any other necessary information needed to complete the permit.

[File Properties]

File Name

O2030 T5 Minor Revision

Application 06-26-2025.pdf

Hash 380C293E7008CEFF970E1881A59CF1883A8AFB14F0EC79BDE2F177AA13F4A736

MIME-Type application/pdf

Expedite Title V

1) Per Texas Health and Safety Code, Section 382.05155, does the applicant want to expedite the processing of this application?

No

Certification

I certify that I am the Duly Authorized Representative for this application and that, based on information and belief formed after reasonable inquiry, the statements and information on this form are true, accurate, and complete.

- 1. I am Fernando Frollini, the owner of the STEERS account ER100782.
- 2. I have the authority to sign this data on behalf of the applicant named above.
- 3. I have personally examined the foregoing and am familiar with its content and the content of any attachments, and based upon my personal knowledge and/or inquiry of any individual responsible for information contained herein, that this information is true, accurate, and complete.
- 4. I further certify that I have not violated any term in my TCEQ STEERS participation agreement and that I have no reason to believe that the confidentiality or use of my password has been compromised at any time.
- 5. I understand that use of my password constitutes an electronic signature legally equivalent to my written signature.
- 6. I also understand that the attestations of fact contained herein pertain to the implementation, oversight and enforcement of a state and/or federal environmental program and must be true and complete to the best of my knowledge.
- 7. I am aware that criminal penalties may be imposed for statements or omissions that I know or have reason to believe are untrue or misleading.
- 8. I am knowingly and intentionally signing Title V Existing 2030.
- 9. My signature indicates that I am in agreement with the information on this form, and authorize its submittal to the TCEC

OWNER OPERATOR Signature: Fernando Frollini OWNER OPERATOR

Account Number: ER100782
Signature IP Address: 165.225.32.112
Signature Date: 2025-06-30

Signature Hash: 60612B9C913A6EE7573B7B8EDEF1DF44C01523E226D9CACEA6740E4692B5EB52
Form Hash Code at 161A187576C0CC6D1E5905E91F9A9B3BF6134487A3BCE49F4F03FD0A6BFE6CBE

time of Signature:

Submission

Reference Number: The application reference number is 796655

Submitted by:

The application was submitted by ER100782/Fernando Frollini

Submitted Timestamp: The application was submitted on 2025-06-30

at 14:04:49 CDT

Submitted From: The application was submitted from IP address

165.225.32.112

Confirmation Number: The confirmation number is 661747

Steers Version: The STEERS version is 6.92
Permit Number: The permit number is 2030

Additional Information

Application Creator: This account was created by Vanessa N Peppers



June 26, 2025

Electronic Submittal via ePermits

Mr. Johnny Bowers TCEQ Air Permits Initial Review Team (APIRT), MC-161 P.O. Box 13087 Austin, TX 78711-3087

Union Carbide Corporation: CN601688781; RN102181526 Ethylene Oxide/Ethylene Glycol – Title V Operating Permit O2030 Site Operating Permit Minor Revision Application

Dear Mr. Bowers,

The purpose of this submittal is to apply for a Title V minor revision in compliance with 30 TAC Chapter 122, Subchapter, C §122.215 and §122.217, for Federal Operating Permit No. O2030, Ethylene Oxide/Glycol Plant. This minor revision is being submitted to incorporate units that are a part of an expansion of the existing production unit that was authorized via NSR 22321 and NSR 48653, which was approved on 10/05/2023.

The following forms are included in this submittal as part of the permit application:

- Form OP-2
- Form OP-SUMR
- Form OP-UAs
- Form OP-REQ1 (87-88 only)
- Form OP-REQ3

For future correspondence regarding this permit application, Vanessa Peppers can be contacted at 361-553-2174 or via email at VPeppers@dow.com.

Sincerely,

Vanessa Peppers

Environmental Manager

enclosure

cc:

US EPA Region 6 TCEQ Air Section Manager, Region 14 R6AirPermitsTX@epa.gov R14APDMail@tceq.texas.gov



Union Carbide Corporation

Permit O2030 Ethylene Oxide/Glycol Plant

Site Operating Permit Minor Revision Application

June 26, 2025

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Section 1 - Administrative Forms

Federal Operating Permit Program Application for Permit Revision/Renewal Form OP-2-Table 1 Texas Commission on Environmental Quality

Date: June 26, 2025 Permit No.: O2030 Regulated Entity No.: RN102181526 Company Name: Union Carbide Corporation For Submissions to EPA \bowtie YES \bigcap NO Has an electronic copy of this application been submitted (or is being submitted) to EPA? Application Type Indicate the type of application: Renewal Streamlined Revision (Must include provisional terms and conditions as explained in the instructions.) Significant Revision Revision Requesting Prior Approval Administrative Revision Response to Reopening II.Qualification Statement For SOP Revisions Only X YES ☐ NO For GOP Revisions Only ☐ YES ☐ NO

Federal Operating Permit Program Application for Permit Revision/Renewal Form OP-2-Table 1 (continued) Texas Commission on Environmental Quality

III.Major Sour	III.Major Source Pollutants (Complete this section if the permit revision is due to a change at the site or change in regulations.)						
•	lutants for which the site in propriate box[es].)	s a major source based of	on the site's potential to e	mit:	<u>, </u>		
⊠ VOC	⊠ NO _X	☐ SO ₂	\bowtie PM ₁₀	⊠ co	☐ Pb	⊠ HAP	
Other:							
IV.Reference (Only Requirements (For re	eference only)					
Has the applic	cant paid emissions fees	for the most recent ag	gency fiscal year (Septe	mber 1 - August 31)?		YES NO N/A	
V. Delinquent Fees and Penalties							
Notice: 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 are paid in accordance with the Delinquent Fee and penalty protocol.							

Federal Operating Permit Program Application for Permit Revision/Renewal Form OP-2-Table 2 Texas Commission on Environmental Quality

Date: June 26, 2025

Permit No.: O2030

Regulated Entity No.: RN102181526

Company Name: Union Carbide Corporation

Using the table below, provide a description of the revision.

			Unit/Group	Process	NSR	Description of Change and Provisional Terms
Revision No.	Revision Code	New Unit	ID No.	Applicable Form	Authorization	and Conditions
1	MS-A	NO	N/A	OP-REQ1	N/A	Union Carbide Corporation (UCC) is requesting to update the Preconstruction Authorizations. Please see the attached Form OP-REQ1.
2	MS-A	NO	OX2-FUG	OP-UA1	22321 48653	Please add 40 CFR Part 60, Subpart VVb positive applicability to this process vent.
3	MS-A	YES	C-414	OP-SUMR OP-UA3	22321	Please add this unit to the Title V Permit. This unit is part of an expansion to an existing storage and loading/unloading facility that was authorized via NSR 22321, which was issued on 10/5/2023 (Project #349223). Please add 30 TAC Chapter 115, Storage of VOCs and 40 CFR Part 63, Subpart G positive applicability to this process vent.

Federal Operating Permit Program Application for Permit Revision/Renewal Form OP-2-Table 2 Texas Commission on Environmental Quality

Date: June 26, 2025

Permit No.: O2030

Regulated Entity No.: RN102181526

Company Name: Union Carbide Corporation

			Unit/Group	Process	NSR	Description of Change and Provisional Terms
Revision No.	Revision Code	New Unit	ID No.	Applicable Form	Authorization.	and Conditions
4	MS-A	YES	523	OP-SUMR OP-UA15 OP-UA17	48653	Please add this unit to the Title V Permit. This unit is part of an expansion to an existing ethylene oxide production facility that was authorized via NSR 48653, which was issued on 10/05/2023 (Project #349222). Please add 30 TAC Chapter 115, Vent Gas Controls, 40 CFR Part 60, Subpart NNN, and 40 CFR Part 63, Subpart G positive applicability to this process vent.
5	MS-A	YES	563	OP-SUMR OP-UA15 OP-UA17	48653	Please add this unit to the Title V Permit. This unit is part of an expansion to an existing ethylene oxide production facility that was authorized via NSR 48653, which was issued on 10/05/2023 (Project #349222). Please add 30 TAC Chapter 115, Vent Gas Controls, 40 CFR Part 60, Subpart NNN, and 40 CFR Part 63, Subpart G positive applicability to this process vent.

Federal Operating Permit Program Application for Permit Revision/Renewal Form OP-2-Table 2 Texas Commission on Environmental Quality

Date: June 26, 2025

Permit No.: O2030

Regulated Entity No.: RN102181526

Company Name: Union Carbide Corporation

			Unit/Group	Process	NSR	Description of Change and Provisional Terms
Revision No.	Revision Code	New Unit	ID No.	Applicable Form	Authorization.	and Conditions
6	MS-A	YES	573	OP-SUMR OP-UA15 OP-UA17	48653	Please add this unit to the Title V Permit. This unit is part of an expansion to an existing ethylene oxide production facility that was authorized via NSR 48653, which was issued on 10/05/2023 (Project #349222). Please add 30 TAC Chapter 115, Vent Gas Controls, 40 CFR Part 60, Subpart NNN, and 40 CFR Part 63, Subpart G positive applicability to this process vent.
7	MS-A	YES	598	OP-SUMR OP-UA1 OP-UA15	48653	Please add this unit to the Title V Permit. This unit is part of an expansion to an existing ethylene oxide production facility that was authorized via NSR 48653, which was issued on 10/05/2023 (Project #349222). Please add 30 TAC Chapter 115, Vent Gas Controls and 40 CFR Part 60, Subpart RRRa positive applicability to this process vent.

Federal Operating Permit Program Application for Permit Revision/Renewal Form OP-2-Table 3 Texas Commission on Environmental Quality

Date	e: June 26, 2025	
Perm	nit No.: O2030	
Regu	ulated Entity No.: RN102181526	
Com	npany Name: Union Carbide Corporation	
I.	Significant Revision (Complete this section if you are submitting a significant revision application or a renewal application to significant revision.)	hat includes a
A.	Is the site subject to bilingual requirements pursuant to 30 TAC § 122.322?	∑ YES ☐ NO
B.	Indicate the alternate language(s) in which public notice is required: Spanish	
C.	Will, there be a change in air pollutant emissions as a result of the significant revision?	⊠ YES □ NO

Federal Operating Permit Program Application for Permit Revision/Renewal Form OP-2-Table 3 Texas Commission on Environmental Quality

Using the table below, indicate the air pollutant(s) that will be changing and include a brief description of the change in pollutant emissions for each pollutant:

Pollutant	Description of the Change in Pollutant Emissions
Carbon Monoxide	The increase in emissions is due to vent streams being flared from new process equipment and the new Alkoxylation Plant as well as maintenance, startup, and shutdown emissions.
Nitrogen Oxides	The increase in emissions is due to vent streams being flared from new process equipment and the new Alkoxylation Plant as well as maintenance, startup, and shutdown emissions.
Sulfur Dioxide	The increase in emissions is due to vent streams being flared from new process equipment and the new Alkoxylation Plant as well as maintenance, startup, and shutdown emissions.
Hydrochloric Acid	The increase in emissions is due to vent streams being flared from new process equipment and the new Alkoxylation Plant as well as maintenance, startup, and shutdown emissions.
Volatile Organic Compounds	The increase in emissions is due to the installation of a new analyzer vent, vent streams being flared from the new Alkoxylation Plant and new process equipment, as well as corresponding fugitive and maintenance, startup, and shutdown emissions.

Texas Commission on Environmental Quality Federal Operating Permit Program Individual Unit Summary for Revisions Form OP-SUMR Table 1

Date	Permit No.	Regulated Entity No.
June 26, 2025	O2030	RN102181526

Unit/Process AI	Unit/Process Revision No.	Unit/Process ID No.	Unit/Process Applicable Form	Unit/Process Name/ Description	Unit/Process CAM	Preconstruction Authorizations 30 TAC Chapter 116/30 TAC Chapter 106	Preconstruction Authorizations Title I
A	3	C-414	OP-UA3	#3 EO SURGE TANK		22321	
A	4	523	OP-UA15 OP-UA17	EXHAUSTING COLUMN		48653	
A	5	563	OP-UA15 OP-UA17	PURIFICATION COLUMN		48653	
A	6	573	OP-UA15 OP-UA17	RECOVERY COLUMN		48653	
A	7	598	OP-UA1 OP-UA15	EORC TAILS REACTOR		48653	

Section 2 – Unit Attribute Forms

Texas Commission on Environmental Quality Miscellaneous Unit Attributes Form OP-UA1 (Page 1) Federal Operating Permit Program

Date:	June 26, 2025
Permit No.:	O2030
Regulated Entity No.:	RN102181526

Unit ID No.	SOP/GOP Index No.	Unit Type	Date Constructed/Placed in Service	Functionally Identical Replacement	Maximum Rated Capacity	Technical Information and Unit Description
OX2-FUG	60VVB-01	EP				Please add General High-Level Applicability to 40 CFR Part 60, Subpart VVb
598	60RRRa-01	EP				Please add General High-Level Applicability to 40 CFR Part 60, Subpart RRRa

TCEQ 10044 (APDG 5756v2 Revised 06/14) OP-UA1 Instructions This form for use by facilities subject to air quality permit requirements and may be revised periodically. (Title V Release 10/98)

Storage Tank/Vessel Attributes Form OP-UA3 (Page 1)

Federal Operating Permit Program

Table 1: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60) Subpart K: Standards of Performance for Storage Vessels for Petroleum Liquids Texas Commission on Environmental Quality

Date	Permit No.	Regulated Entity No.
June 26, 2025	O2030	RN102181526

Unit ID No.	SOP/GOP Index No.	Construction/ Modification Date	Storage Capacity	Product Stored	True Vapor Pressure	Storage Vessel Description	Reid Vapor Pressure	Maximum TVP	Estimated TVP	Control Device ID No.
SDMG301		73-								
SDMG513		73-								

Storage Tank/Vessel Attributes Form OP-UA3 (Page 3)

Federal Operating Permit Program

Table 3: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)

Subpart Kb: Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) Texas Commission on Environmental Quality

Date	Permit No.	Regulated Entity No.		
June 26, 2025	O2030	RN102181526		

Unit ID No.	SOP/GOP Index No.	Product Stored	Storage Capacity	WW Tank Control	Maximum TVP	Storage Vessel Description	AMEL ID No.	Guidepole	Reid Vapor Pressure	Control Device ID No.
C-413		VOL	10K-							

Storage Tank/Vessel Attributes Form OP-UA3 (Page 4)

Federal Operating Permit Program

Table 4a: Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115) Subchapter B, Division 1: Storage of Volatile Organic Compounds (VOCs) Texas Commission on Environmental Quality

Date	Permit No.	Regulated Entity No.		
June 26, 2025	O2030	RN102181526		

Unit ID No.	SOP/GOP Index No.	Alternate Control Requirement	ACR ID No.	Product Stored	Storage Capacity	Throughput	Potential to Emit	Uncontrolled Emissions
GRPGLYCLTK		Yes			VOC2			
SDMG301		Yes			VOC2			
SDMG513		Yes			VOC2			
C-411	R5112-01	Yes			VOC2			
C-412	R5112-01	Yes			VOC2			
C-413	R5112-01	Yes			VOC2			
C-414	R5112-01	Yes			VOC2			

Storage Tank/Vessel Attributes Form OP-UA3 (Page 5)

Federal Operating Permit Program

Table 4b: Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115) Subchapter B, Division 1: Storage of Volatile Organic Compounds (VOCs) Texas Commission on Environmental Quality

Date	Permit No.	Regulated Entity No.		
June 26, 2025	O2030	RN102181526		

Unit ID No.	SOP/GOP Index No.	Construction Date	Tank Description	True Vapor Pressure	Primary Seal	Secondary Seal	Control Device Type	Control Device ID No.
GRPGLYCLTK				1.5-B				
SDMG301				1.5-B				
SDMG513				1.5-B				
C-411	R5112-01		SPVRS2	1.5+B			FLARE	1013/1014
C-412	R5112-01		SPVRS2	1.5+B			FLARE	1013/1014
C-413	R5112-01	73+	SPVRS2	1.5+B			FLARE	1013/1014
C-414	R5112-01	73+	SPVRS2	1.5+B			FLARE	1013/1014

Storage Tank/Vessel Attributes Form OP-UA3 (Page 13)

Federal Operating Permit Program

Table 9a: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)

Subpart G: National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Storage Vessels

Date	Permit No.	Regulated Entity No.
June 26, 2025	O2030	RN102181526

Unit ID No.	SOP Index No.	MACT Subpart F/G Applicability	NESHAP Subpart Y Applicability	NSPS Subpart Kb Applicability	Maximum TVP	Emission Control Type	AMOC ID No.
GRPGLYCLTK		NO	NO	NO			
C-411	63G-01	YES	NO		11.11+	CVS-CD	
C-412	63G-01	YES	NO		11.11+	CVS-CD	
C-414	63G-01	YES	NO		11.11+	CVS-CD	

Storage Tank/Vessel Attributes Form OP-UA3 (Page 14)

Federal Operating Permit Program

Table 9b: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)

Subpart G: National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Storage Vessels

Date	Permit No.	Regulated Entity No.
June 26, 2025	O2030	RN102181526

Unit ID No.	SOP Index No.	Seal Type	Closed Vent System	Hard Piping	Bypass Lines	Control Device Type	Control Device ID No.	Control Device Design	Design Evaluation Submitted
GRPGLYCLTK									
C-411	63G-01		SUBPTH	YES	CARSEAL	FLARE	1013/1014		
C-412	63G-01		SUBPTH	YES	CARSEAL	FLARE	1013/1014		
C-414	63G-01		SUBPTH	YES	CARSEAL	FLARE	1013/1014		

Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes Form OP-UA15 (Page 1)

Federal Operating Permit Program

Table 1a: Title 30 Texas Administrative Code Chapter 111 (30 TAC Chapter 111)

Subchapter A: Visible Emissions

Date	Permit No.	Regulated Entity No.
June 26, 2025	O2030	RN102181526

Emission Point ID No.	SOP/GOP Index No.	Alternate Opacity Limitation	AOL ID No.	Vent Source	Opacity Monitoring System	Construction Date	Effluent Flow Rate
97A	R1111-01	NO		OTHER	OP MON	72-	100+

Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes Form OP-UA15 (Page 2)

Federal Operating Permit Program

Table 1b: Title 30 Texas Administrative Code Chapter 111 (30 TAC Chapter 111) Subchapter A: Visible Emissions

Date	Permit No.	Regulated Entity No.		
June 26, 2025	O2030	RN102181526		

Emission Point ID No.	SOP Index No.	Annual ACF	Heat Input	State Implementation Plan (SIP) Violation	Total Feed Capacity

Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes Form OP-UA15 (Page 3)

Federal Operating Permit Program

Table 2a: Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115)

Subchapter B: Vent Gas Control

Date	Permit No.	Regulated Entity No.
June 26, 2025	O2030	RN102181526

Emission Point ID No.	SOP/GOP Index No.	Chapter 115 Division	Combustion Exhaust	Vent Type	Total Uncontrolled VOC Weight	Combined 24-Hour VOC Weight	VOC Concentration	VOC Concentration or Emission Rate at Maximum Operating Conditions
97A		NO	NO	CLASVOC			30K-	
SD108VNT		NO	NO	CLASVOC				
100		NO	NO	CLASVOC		100-		
101		NO	NO	CLASVOC		100-		
99		NO	NO	CLASVOC		100-		
118		NO	NO	CLASVOC		100-		
1042		NO	NO	CLASVOC		100-		
523	R5121-01	NO	NO	CLASVOC		100-		
563	R5121-01	NO	NO	CLASVOC		100-		
573	R5121-01	NO	NO	CLASVOC		100-		
598	R5121-01	NO	NO	CLASVOC		100-		

Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes Form OP-UA15 (Page 4)

Federal Operating Permit Program

Table 2b: Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115)

Subchapter B: Vent Gas Control

Date	Permit No.	Regulated Entity No.
June 26, 2025	O2030	RN102181526

Emission Point ID No.	SOP Index No.	Alternate Control Requirement	ACR ID No.	Control Device Type	Control Device ID No.
97A		NONE			
SD108VNT		NONE		FLARE	SD108
100		NONE			
101		NONE			
99		NONE			
118		NONE			
1042		NONE			
523		NONE		FLARE	SD108
563		NONE		FLARE	SD108
573		NONE		FLARE	SD108
598		NONE			

Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes Form OP-UA15 (Page 13)

Federal Operating Permit Program

Table 6a: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)

Subpart G: National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic

Organic Chemical Manufacturing Industry for Process Vents

Date	Permit No.	Regulated Entity No.
June 26, 2025	O2030	RN102181526

Emission Point ID No.	SOP Index No.	Overlap	Group 1	Regulation	HAP Concentration	Flow Rate	Electing Control	NSPS TRE Index Value	MACT TRE Index Value	Plant Type
100		NONE	NO		NCE	NCE	NOELECT	8+	4+	
101		NONE	NO		NCE	NCE	NOELECT	8+	4+	
RB-109		NONE	YES							
RB-110		NONE	NO		NCE	NCE	NOELECT	8+	4+	
RB-111		NONE	NO		NCE	NCE	NOELECT	8+	4+	
99		NONE	NO		NCE	NCE	NOELECT	8+	4+	
118		NONE	NO		NCE	NCE	NOELECT	8+	4+	
RB-101		NONE	NO		NCE	NCE	NOELECT	8+	4+	
1042		NONE	NO		NCE	NCE	NOELECT	8+	4+	
97A		NONE	NO		NCE	NCE	NOELECT	8+	4+	
523		NONE	YES							
563		NONE	YES							
573		NONE	YES							

Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes Form OP-UA15 (Page 14)

Federal Operating Permit Program

Table 6b: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)

Subpart G: National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic

Organic Chemical Manufacturing Industry for Process Vents

Date	Permit No.	Regulated Entity No.		
June 26, 2025	O2030	RN102181526		

Emission Point ID No.	SOP Index No.	Control Device	Control Device ID No.	Halogenated	TRE for Halogenated Vent Stream	Halogen Reduction Device	Installation Date	Performance Test
100				NO				YES
101				NO				NO
RB-109		FLARE	SD108A	NO				YES
RB-110		FLARE	SD108A	NO				NO
RB-111		FLARE	SD108A	NO				NO
99				NO				YES
118				NO				YES
RB-101		FLARE	SD108A	NO				NO
1042				NO				YES
97A				NO				NO
523		FLARE	SD108A	NO				YES
563		FLARE	SD108A	NO				YES
573		FLARE	SD108A	NO				YES

Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes Form OP-UA15 (Page 15)

Federal Operating Permit Program

Table 6c: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)

Subpart G: National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents

Date	Permit No.	Regulated Entity No.		
June 26, 2025	O2030	RN102181526		

Emission Point ID No.	SOP Index No.	Alternate Monitoring Parameters (AMP)	AMP ID No.	Continuous Monitoring	Continuous Monitoring Alt ID No.	Bypass Lines	Flow Indicator
100		NO		NOALT		NO	
101		NO		NOALT		NO	
RB-109		NO		NOALT		NO	
RB-110		NO		NOALT		NO	
RB-111		NO		NOALT		NO	
99		NO		NOALT		NO	
118		NO		NOALT		NO	
RB-101		NO		NOALT		NO	
1042		NO		NOALT		NO	
97A		NO		NOALT		NO	
523		NO		NOALT		NO	
563		NO		NOALT		NO	
573		NO		NOALT		NO	

Texas Commission on Environmental Quality Distillation Unit Attributes Form OP-UA17 (Page 1)

Federal Operating Permit Program

Table 1a: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)
Subpart NNN: Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations

June 26, 2025

Date:	June 26, 2025
Permit No.:	O2030
Regulated Entity No.:	RN102181526

Unit ID No.	SOP Index No.	Subpart NNN Chemicals	Construction/Modification Date	Vent Type	Distillation Unit Type	Total Design Capacity	Vent Stream Flow Rate
99		YES	83+	NOVRS	NONE	1+	8+
100		YES	83+	NOVRS	NONE	1+	8+
118		YES	83+	NOVRS	NONE	1+	8+
1042		YES	83+	NOVRS	NONE	1+	8+
523		YES	83+	NOVRS	NONE	1+	8+
563		YES	83+	NOVRS	NONE	1+	8+
573		YES	83+	NOVRS	NONE	1+	8+

Texas Commission on Environmental Quality Distillation Unit Attributes Form OP-UA17 (Page 2)

Federal Operating Permit Program

Table 1b: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)

Subpart NNN: Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations

Date:	June 26, 2025
Permit No.:	O2030
Regulated Entity No.:	RN102181526

Unit ID No.	SOP Index No.	Total Resource Effectiveness	TOC Reduction	Subpart NNN Control Device	ACT ID No.	Subpart NNN Control Device ID No.	Emission Poi	nt ID No(s).	Organic Monitoring Device
99		8+B		NONE			99		
100		8+B		NONE			100		
118		8+B		NONE			118		
1042		8+B		NONE			1042		
523				FLARE		SD108	SD108		
563				FLARE		SD108	SD108		
573				FLARE		SD108	SD108		

Texas Commission on Environmental Quality Application Area-Wide Applicability Determinations and General Information Form OP-REQ1 Federal Operating Permit Program

Section 3 - Applicability Identification Forms

Texas Commission on Environmental Quality Application Area-Wide Applicability Determinations and General Information Form OP-REQ1

Federal Operating Permit Program

June 26, 2025

Permit No.:			O2030				
RN No.:			RN1021	RN102181526			
			•				
Form OP-REQ1: Page 87							
XII. NSR Authorizations	(Attach a	dditional sheets if n	ecessary	for sections E-J)			
E. PSD Permits a	nd PSD N	Tajor Pollutants					
PSD Permit No.:		Issuance Date:		Pollutant(s):			
PSD Permit No.:		Issuance Date:		Pollutant(s):			
PSD Permit No.:		Issuance Date:		Pollutant(s):			
If PSD Permits are held for Technical Forms heading at							
F. Nonattainment	(NA) Pe	rmits and NA Major	Pollutar	nts			
NA Permit No.:		Issuance Date:		Pollutant(s):			
NA Permit No.:		Issuance Date:		Pollutant(s):			
NA Permit No.:		Issuance Date:		Pollutant(s):			
If NA Permits are held for th Technical Forms heading at		-	•				
G. NSR Authoriza	tions wit	h FCAA § 112(g) Re	equireme	nts			
NSR Permit No.:	Issuanc	e Date:	NSR Pe	ermit No.:	Issuance Date:		
NSR Permit No.:	Issuanc	e Date:	NSR Pe	ermit No.:	Issuance Date:		
NSR Permit No.: Issuance		e Date:	NSR Pe	ermit No.:	Issuance Date:		
		rmits, Special Permi ermits, NA Permits)			Authorizations (Other Than		
Authorization No.: 22321	Issuanc	e Date: 10/05/2023	Authorization No.:		Issuance Date:		
Authorization No.: 48653	Issuanc	e Date: 11/16/2023	Authori	zation No.:	Issuance Date:		
Authorization No.: Issuance Date:		e Date:	Authorization No.:		Issuance Date:		

Date:

Texas Commission on Environmental Quality Application Area-Wide Applicability Determinations and General Information Form OP-REQ1

Federal Operating Permit Program

Date:	June 26, 2025
Permit No.:	O2030
RN No.:	RN102181526

Form OP-REQ1: Page 88	Form OP-REQ1: Page 88					
XII. NSR Authorizations (Attach a	XII. NSR Authorizations (Attach additional sheets if necessary for sections E-J)					
I. Permits by Rule (30 TAC Cha	apter 106) for the Application Area					
A list of selected Permits by Rule (pre FOP application is available in the in	viously referred to as standard exemptions) that are required to be listed in the estructions.					
PBR No.: 106.261	Version No./Date: 11/1/2003					
PBR No.: 106.262	Version No./Date: 11/1/2003					
PBR No.: 106.263	Version No./Date: 11/1/2001					
PBR No.: 106.264	Version No./Date: 9/4/2000					
PBR No.:	Version No./Date:					
PBR No.:	Version No./Date:					
PBR No.:	Version No./Date:					
PBR No.:	Version No./Date:					
PBR No.:	Version No./Date:					
PBR No.:	Version No./Date:					
PBR No.:	Version No./Date:					
PBR No.:	Version No./Date:					
PBR No.:	Version No./Date:					
PBR No.:	Version No./Date:					
PBR No.:	Version No./Date:					
PBR No.:	PBR No.: Version No./Date:					
J. Municipal Solid Waste and Industrial Hazardous Waste Permits With an Air Addendum						
Permit No.:	Issuance Date:					
Permit No.:	Issuance Date:					
Permit No.:	Issuance Date:					
Permit No.:	Issuance Date:					

Applicable Requirements Summary Form OP-REQ3 (Page 1) Federal Operating Permit Program Table 1a: Additions

Date: June 26, 2025	Regulated Entity No.: RN102181526	Permit No.: O2030
Company Name: Union Carbide Corporation	Area Name: Ethylene Oxide/Glycol Plant	

Revision	Unit/Group/	Process	SOP/GOP		Applicable Re	gulatory Requirement
No.	ID No.	Applicable Form	Index No.	Pollutant	Name	Standard(s)
2	OX2-FUG	OP-UA1	60VVb-01	VOC	40 CFR Part 60, Subpart VVb	General High Level Applicability
3	C-414	OP-UA3	R5112-01	VOC	30 TAC Chapter 115, Storage of VOCs	115.112(c)(1)
3	C-414	OP-UA3	63G-01	HAPS	40 CFR Part 63, Subpart G	63.119(e), 63.11, 63.119(a)(2), 63.119(e)(1), 63.119(e)(3), 63.119(e)(4), 63.119(e)(5), 63.172(a), [G] 63.172(h), 63.172(i), 63.172(j)(2), 63.172(m)
4	523	OP-UA15	R5121-01	VOC	30 TAC Chapter 115, Vent Gas Controls	115.127(c)(1)(B), 115.127(c)(1)
4	523	OP-UA15	63G-01	HAPS	40 CFR Part 63, Subpart G	63.113(e), [G] 63.115(f)
4	523	OP-UA17	60NNN-01	HAPS	40 CFR Part 60, Subpart NNN	60.660(c)(4), 60.662(c)
5	563	OP-UA15	R5121-01	VOC	30 TAC Chapter 115, Vent Gas Controls	115.127(c)(1)(B), 115.127(c)(1)
5	563	OP-UA15	63G-01	HAPS	40 CFR Part 63, Subpart G	63.113(e), [G] 63.115(f)
5	563	OP-UA17	60NNN-01	HAPS	40 CFR Part 60, Subpart NNN	60.660(c)(4), 60.662(c)
6	573	OP-UA15	R5121-01	VOC	30 TAC Chapter 115, Vent Gas Controls	115.127(c)(1)(B), 115.127(c)(1)
6	573	OP-UA15	63G-01	HAPS	40 CFR Part 63, Subpart G	63.113(e), [G] 63.115(f)
6	573	OP-UA17	60NNN-01	HAPS	40 CFR Part 60, Subpart NNN	60.660(c)(4), 60.662(c)
7	598	OP-UA1	60RRRa-01	VOC	40 CFR Part 60, Subpart RRRa	General High Level Applicability
7	598	OP-UA15	R5121-01	VOC	30 TAC Chapter 115, Vent Gas Controls	115.127(c)(1)(B), 115.127(c)(1)

Applicable Requirements Summary Form OP-REQ3 (Page 1) Federal Operating Permit Program Table 1a: Additions

Date: June 26, 2025	Regulated Entity No.: RN102181526	Permit No.: O2030
Company Name: Union Carbide Corporation	Area Name: Ethylene Oxide/Glycol Plant	

Revision No.	Unit/Group/ Process ID No.	SOP/GOP Index No.	Pollutant	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
2	OX2-FUG	60VVb-01	VOC	General High-Level Applicability	General High-Level Applicability	General High-Level Applicability
3	C-414	R5112-01	VOC	General High-Level Applicability	NONE	NONE
3	C-414	63G-01	HAPS	63.120(e)(1), 63.120(e)(4) [G] 63.172(f)(1),[G] 63.172(f)(2), 63.172(g), [G] 63.172(h), 63.172(j)(2), [G] 63.172(k) [G] 63.172(l), [G] 63.180(b), [G] 63.180(d)		[G] 63.120(e)(2), 63.122(c)(2) [G] 63.122(g)(1), [G] 63.122(g)(3) 63.151(a)(7), [G] 63.151(b) [G]63.151(j), [G] 63.152(a), 63.152(b) [G]63.152(b)(1), 63.152(b)(4) 63.152(c)(1), 63.152(c)(2) 63.152(c)(2)(ii), [G] 63.152(c)(2)(ii) 63.152(c)(2)(iii), 63.152(c)(3) 63.152(c)(3)(i), 63.152(c)(4)(ii) [G]63.152(c)(6), [G] 63.182(a) [G]63.182(b), 63.182(c) [G 63.182(c)(1), 63.182(c)(4) [G] 63.182(d)
4	523	R5121-01	VOC	[G] 115.125, 115.126(2)	115.126, 115.126(2), 115.126(3), 115.126(4)	None

Applicable Requirements Summary Form OP-REQ3 (Page 1) Federal Operating Permit Program Table 1a: Additions

Date: June 26, 2025	Regulated Entity No.: RN102181526	Permit No.: O2030
Company Name: Union Carbide Corporation	Area Name: Ethylene Oxide/Glycol Plant	

Revision No.	Unit/Group/ Process ID No.	SOP/GOP Index No.	Pollutant	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
4	523	63G-01	HAPS	[G] 63.115(a), [G] 63.115(b), [G] 63.115(c), [G] 63.115(d), 63.115(e), 63.115(e)(1), [G] 63.115(f)	63.117(b), [G] 63.118(c) [G] 63.152(a)	63.115(e)(2), [G] 63.118(g), [G] 63.118(h), [G] 63.118(k), [G] 63.151(b), 63.151(e), [G] 63.151(e)(1), 63.151(e)(3) [G] 63.151(j), [G] 63.152(a), 63.152(b) [G] 63.152(b)(1), 63.152(c)(1), 63.152(c)(2), 63.152(c)(2)(i), [G]63.152(c)(2)(ii), 63.152(c)(2)(iii), 63.152(c)(4)(i), 63.152(c)(4)(ii), 63.152(c)(4)(iii)
4	523	60NNN-01	VOC/TOC	[G] 60.664(e), 60.664(f), [G] 60.664(f)(1), 60.664(f)(2), 60.664(g), 60.664(g)(1), 60.664(g)(2)	[G]§ 60.665(h), 60.665(p)	60.664(g)(1), 60.665(l), 60.665(l)(7), 60.665(p)
5	563	R5121-01	VOC	[G] 115.125, 115.126(2)	115.126, 115.126(2), 115.126(3), 115.126(4)	None
5	563	63G-01	HAPS	[G] 63.115(a), [G] 63.115(b), [G] 63.115(c), [G] 63.115(d), 63.115(e), 63.115(e)(1), [G] 63.115(f)	63.117(b), [G] 63.118(c) [G] 63.152(a)	63.115(e)(2), [G] 63.118(g), [G] 63.118(h), [G] 63.118(k), [G] 63.151(b), 63.151(e), [G] 63.151(e)(1), 63.151(e)(3) [G] 63.151(j), [G] 63.152(a), 63.152(b) [G] 63.152(b)(1), 63.152(c)(1), 63.152(c)(2), 63.152(c)(2)(ii), [G]63.152(c)(2)(iii), 63.152(c)(2)(iii), 63.152(c)(4)(i), 63.152(c)(4)(ii), 63.152(c)(4)(iii)

Applicable Requirements Summary Form OP-REQ3 (Page 1) Federal Operating Permit Program

Table 1a: Additions

Date: June 26, 2025	Regulated Entity No.: RN102181526	Permit No.: O2030
Company Name: Union Carbide Corporation	Area Name: Ethylene Oxide/Glycol Plant	

Revision No.	Unit/Group/ Process ID No.	SOP/GOP Index No.	Pollutant	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
5	563	60NNN-01	VOC/TOC	[G] 60.664(e), 60.664(f), [G] 60.664(f)(1), 60.664(f)(2), 60.664(g), 60.664(g)(1), 60.664(g)(2)	[G]§ 60.665(h), 60.665(p)	60.664(g)(1), 60.665(l), 60.665(l)(7), 60.665(p)
6	573	R5121-01	VOC	[G] 115.125, 115.126(2)	115.126, 115.126(2), 115.126(3), 115.126(4)	None
6	573	63G-01	HAPS	[G] 63.115(a), [G] 63.115(b), [G] 63.115(c), [G] 63.115(d), 63.115(e), 63.115(e)(1), [G] 63.115(f)	63.117(b), [G] 63.118(c) [G] 63.152(a)	63.115(e)(2), [G] 63.118(g), [G] 63.118(h), [G] 63.118(k), [G] 63.151(b), 63.151(e), [G] 63.151(e)(1), 63.151(e)(3) [G] 63.151(j), [G] 63.152(a), 63.152(b) [G] 63.152(b)(1), 63.152(c)(1), 63.152(c)(2), 63.152(c)(2)(i), [G]63.152(c)(2)(ii), 63.152(c)(2)(iii), 63.152(c)(4)(i), 63.152(c)(4)(ii), 63.152(c)(4)(iii)
6	573	60NNN-01	VOC/TOC	[G] 60.664(e), 60.664(f), [G] 60.664(f)(1), 60.664(f)(2), 60.664(g), 60.664(g)(1), 60.664(g)(2)	[G]§ 60.665(h), 60.665(p)	60.664(g)(1), 60.665(l), 60.665(l)(7), 60.665(p)
7	598	60RRRa-01	VOC	General High-Level Applicability	General High-Level Applicability	General High-Level Applicability
7	598	R5121-01	VOC	[G] 115.125, 115.126(2)	115.126, 115.126(2), 115.126(3), 115.126(4)	None

TCEQ 10018 (APDG 5939v2, Revised 06/15) OP-REQ3 – Applicable Requirements Summary This form is for use by sources subject to air quality permit requirements and may be revised periodically. (Title V Release 11/08)