

From: [Alyssa Linares](#)
To: [Ulises Luna](#); [Chris Arceneaux](#)
Cc: [Doug Thompson](#); [Melissa Ryan](#)
Subject: RE: Technical Review & Working Draft Permit -- FOP O2285/Project 39026, Albemarle Corporation/ Pasadena Plant
Date: Wednesday, May 27, 2026 7:24:21 AM
Attachments: [image001.png](#)
[Signed OP-CRO1 2026 0526.pdf](#)

Caution: This email may contain suspicious content. Please take care when clicking links or opening attachments. When in doubt, contact the TCEQ Help Desk.

Good morning Mr. Luna,

The attached OP-CRO1 was submitted via STEERS yesterday. Please confirm receipt when you have a chance!

Thanks,
Alyssa

Please note: My email has changed from Alyssa.Linares@Ketjen.com to Alyssa.Linares@Albemarle.com. My work assignment and location have not changed.

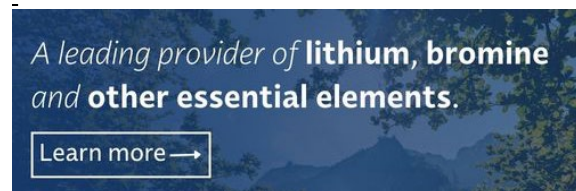
Alyssa Linares

Environmental Professional
P: 713.740.1150
E: Alyssa.Linares@albemarle.com



2500 N South Street
Pasadena, TX 77503, USA
P.O. Box 2500
Pasadena, TX 77501-2500, USA

www.albemarle.com



From: Ulises Luna <Ulises.Luna@tceq.texas.gov>
Sent: Thursday, May 21, 2026 2:06 PM
To: Chris Arceneaux <Chris.Arceneaux@albemarle.com>
Cc: Doug Thompson <Doug.Thompson@albemarle.com>; Alyssa Linares <Alyssa.Linares@albemarle.com>; Melissa Ryan <mryan@trinityconsultants.com>
Subject: RE: Technical Review & Working Draft Permit -- FOP O2285/Project 39026, Albemarle Corporation/ Pasadena Plant

WARNING: This message was sent from an **EXTERNAL** email address. Be cautious of links and attachments, and do not enter your ID or password. Report any suspicious content.

Good afternoon,

Please submit/upload the final OP-CRO1 through **STEERS**, which includes the date of comment submittal in the documentation dates (We recommend a date range from the date of the submittal of application to the date of the submittal of the final OP-CRO1, so this will cover any updates during the project.)

Please provide the information by **May 27, 2026**

Thanks,

Ulises Luna (He, Him)

Operating Permits Section

Air Permits Division – TCEQ

(512) 239-6640

From: Chris Arceneaux <Chris.Arceneaux@albemarle.com>

Sent: Thursday, May 21, 2026 10:50 AM

To: Ulises Luna <Ulises.Luna@tceq.texas.gov>

Cc: Doug Thompson <Doug.Thompson@albemarle.com>; Alyssa Linares <Alyssa.Linares@albemarle.com>; Melissa Ryan <mryan@trinityconsultants.com>

Subject: RE: Technical Review & Working Draft Permit -- FOP O2285/Project 39026, Albemarle Corporation/ Pasadena Plant

Caution: This email may contain suspicious content. Please take care when clicking links or opening attachments. When in doubt, contact the TCEQ Help Desk.

Good morning Mr. Luna,

Please see the attached updated OP-REQ1 as requested in your email dated May 14, 2026 1:05 PM.

During our investigation of your question regarding CAM, we determined that SOP Index R5162-001 was incidentally added during the last renewal for ID No. PRO-DF1BATCH and PRO-MP1BATCH. Albemarle is requesting the removal of this SOP Index No along with the regulatory applicability associated with it. The other SOP Index No, R5162-002, should remain. I have attached an updated OP-2 Table-2 with this information.

Please let me know if you have any questions.

Thanks

Chris Arceneaux

Environmental Professional

P: +1.713.740.1160

E: Chris.Arceneaux@albemarle.com



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Pasadena, TX 77503, USA
P.O. Box 2500
Pasadena, TX 77501-2500, USA

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From: Chris Arceneaux

Sent: Monday, May 18, 2026 4:11 PM

To: Ulises Luna <Ulises.Luna@tceq.texas.gov>

Cc: Doug Thompson <Doug.Thompson@albemarle.com>; Alyssa Linares
<Alyssa.Linares@albemarle.com>; Melissa Ryan <mryan@trinityconsultants.com>

Subject: RE: Technical Review & Working Draft Permit -- FOP O2285/Project 39026, Albemarle Corporation/ Pasadena Plant

Good afternoon Mr. Luna,

Albemarle is submitting an updated OP-REQ1 Page 88 with the correct issuance dates as requested in your previous email. Please see attached.

Regarding your question on CAM, we need some additional time to better assess and are requesting an extension to **May 22, 2026**.

Please let me know if you have any questions.

Thanks

Chris Arceneaux

Environmental Professional

P: +1.713.740.1160

E: Chris.Arceneaux@albemarle.com



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Pasadena, TX 77501-2500, USA

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From: Ulises Luna <Ulises.Luna@tceq.texas.gov>

Sent: Thursday, May 14, 2026 1:05 PM

To: Chris Arceneaux <chris.arceneaux@ketjen.com>

Cc: Doug Thompson <Doug.Thompson@albemarle.com>; Alyssa Linares <Alyssa.Linares@albemarle.com>; Melissa Ryan <mryan@trinityconsultants.com>

Subject: RE: Technical Review & Working Draft Permit -- FOP O2285/Project 39026, Albemarle Corporation/ Pasadena Plant

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Good afternoon,

I have several comments that need to be addressed:

- For the “Additional Monitoring Requirements” (CAM and PM), the term is showing up in the permit because OP-REQ1 Pages 84, Section XI has several questions that were answered “Yes. Please provide an updated OP-REQ1.
- NSR69A and NSR3962 issuance date are outdated. Please provide an updated OP-REQ1 Page 87 with the correct issuance dates.

Please provide the information by **May 18, 2026**

Thanks,

Ulises Luna (He, Him)

Operating Permits Section

Air Permits Division – TCEQ

(512) 239-6640

From: Chris Arceneaux <chris.arceneaux@ketjen.com>

Sent: Monday, April 20, 2026 2:00 PM

To: Ulises Luna <Ulises.Luna@tceq.texas.gov>

Cc: Doug Thompson <Doug.Thompson@albemarle.com>; Alyssa Linares <Alyssa.Linares@albemarle.com>; Melissa Ryan <mryan@trinityconsultants.com>

Subject: RE: Technical Review & Working Draft Permit -- FOP O2285/Project 39026, Albemarle Corporation/ Pasadena Plant

Caution: This email may contain suspicious content. Please take care when clicking links or opening attachments. When in doubt, contact the TCEQ Help Desk.

Good afternoon Mr. Luna,

Albemarle has no further comments.

Thanks

Please note: My email has changed from @Ketjen to @Albemarle. My work assignment and location are unchanged.

Chris Arceneaux

Environmental Professional

P: +1.713.740.1160
E: Chris.Arceneaux@albemarle.com



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[Pasadena, TX 77501-2500, USA](#)

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From: [Ulises Luna](#) <Ulises.Luna@tceq.texas.gov>
Sent: Wednesday, April 15, 2026 1:59 PM
To: [Chris Arceneaux](mailto:chris.arceneaux@ketjen.com) <chris.arceneaux@ketjen.com>
Cc: [Doug Thompson](mailto:Doug.Thompson@albemarle.com) <Doug.Thompson@albemarle.com>; [Alyssa Linares](mailto:Alyssa.Linares@albemarle.com) <Alyssa.Linares@albemarle.com>; [Melissa Ryan](mailto:mryan@trinityconsultants.com) <mryan@trinityconsultants.com>
Subject: RE: Technical Review & Working Draft Permit -- FOP O2285/Project 39026, Albemarle Corporation/ Pasadena Plant

WARNING: This message was sent from an **EXTERNAL** email address. Be cautious of links and attachments, and do not enter your ID or password.
Report any suspicious content.

Good afternoon,
Here's the updated Working Draft Permit.
Please provide any comments by **April 20, 2026**

Thanks,
[Ulises Luna](#) (He, Him)
Operating Permits Section
Air Permits Division – TCEQ
(512) 239-6640

From: [Chris Arceneaux](mailto:chris.arceneaux@ketjen.com) <chris.arceneaux@ketjen.com>
Sent: Tuesday, April 14, 2026 4:42 PM
To: [Ulises Luna](mailto:Ulises.Luna@tceq.texas.gov) <Ulises.Luna@tceq.texas.gov>
Cc: [Doug Thompson](mailto:Doug.Thompson@albemarle.com) <Doug.Thompson@albemarle.com>; [Alyssa Linares](mailto:Alyssa.Linares@albemarle.com) <Alyssa.Linares@albemarle.com>; [Melissa Ryan](mailto:mryan@trinityconsultants.com) <mryan@trinityconsultants.com>
Subject: RE: Technical Review & Working Draft Permit -- FOP O2285/Project 39026, Albemarle Corporation/ Pasadena Plant

Caution: This email may contain suspicious content. Please take care when clicking links or opening attachments. When in doubt, contact the TCEQ Help Desk.

Good afternoon Mr. Luna,
[Albemarle has submitted a response through STEERS. Please confirm receipt of this response.](#)

Thanks
Please note: My email has changed from @Ketjen to @Albemarle. My work assignment and

location are unchanged.

Chris Arceneaux

Environmental Professional

P: +1.713.740.1160

E: Chris.Arceneaux@albemarle.com



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2500 N South Street

Pasadena, TX 77503, USA

P.O. Box 2500

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www.albemarle.com

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From: Ulises Luna <Ulises.Luna@tceq.texas.gov>

Sent: Friday, April 10, 2026 2:28 PM

To: Chris Arceneaux <chris.arceneaux@ketjen.com>

Cc: Doug Thompson <Doug.Thompson@albemarle.com>; Alyssa Linares

<Alyssa.Linares@albemarle.com>; Melissa Ryan <mryan@trinityconsultants.com>

Subject: RE: Technical Review & Working Draft Permit -- FOP O2285/Project 39026, Albemarle Corporation/ Pasadena Plant

WARNING: This message was sent from an **EXTERNAL** email address. Be cautious of links and attachments, and do not enter your ID or password. Report any suspicious content.

Good afternoon,

Received, thank you.

Regarding the updates in applicability for T-K-6, we noticed that there's a missing answer in the question "Exempt Date" in Table 12a for the SOP Index Number R5720-07. Please provide an updated OP-UA15 form by **April 14, 2026**

Thanks,

Ulises Luna (He, Him)

Operating Permits Section

Air Permits Division – TCEQ

(512) 239-6640

From: Chris Arceneaux <chris.arceneaux@ketjen.com>

Sent: Friday, April 10, 2026 1:35 PM

To: Ulises Luna <Ulises.Luna@tceq.texas.gov>

Cc: Doug Thompson <Doug.Thompson@albemarle.com>; Alyssa Linares

<Alyssa.Linares@albemarle.com>; Melissa Ryan <mryan@trinityconsultants.com>

Subject: RE: Technical Review & Working Draft Permit -- FOP O2285/Project 39026, Albemarle Corporation/ Pasadena Plant

Caution: This email may contain suspicious content. Please take care when clicking links

or opening attachments. When in doubt, contact the TCEQ Help Desk.

Good afternoon Mr. Luna,

Please confirm receipt of this message. Attached is Albemarle's comments of WDP and are related to updates in applicability for T-K-6. These were captured as Revision No. 8 on Form OP-2 Table 2. The updates are also listed on the OP-UA15 form.

Can you help us understand if these changes were missed or if there is a reason they were not included?

Thanks

Please note: My email has changed from @Ketjen to @Albemarle. My work assignment and location are unchanged.

Chris Arceneaux

Environmental Professional

P: +1.713.740.1160

E: Chris.Arceneaux@albemarle.com



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[Pasadena, TX 77503, USA](#)

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From: Ulises Luna <Ulises.Luna@tceq.texas.gov>

Sent: Thursday, April 2, 2026 10:26 AM

To: Chris Arceneaux <chris.arceneaux@ketjen.com>

Subject: Technical Review & Working Draft Permit -- FOP 02285/Project 39026, Albemarle Corporation/ Pasadena Plant

WARNING: This message was sent from an **EXTERNAL** email address. Be cautious of links and attachments, and do not enter your ID or password.
Report any suspicious content.

Good morning,

I have been assigned to the Federal Operating Permit (FOP) streamline revision application of Permit No. 02285 for Albemarle Corporation/ Pasadena Plant. This application has been assigned Project No. 39026. Please address all correspondence pertaining to this permit application, including any updates, to me at the address below, and use both the Permit and Project reference numbers above to facilitate tracking.

-

In addition, I wanted to let you know that EPA has, on occasion, objected to Title V permits based on the following:

a. NSR permit and PBR monitoring sufficiency –please refer to our periodic monitoring

guidance for reference of monitoring that EPA has, so far, considered sufficient.

b. Reference to confidential business information (CBI) in NSR permits and PBR submittals.

c. High level terms in the SOP Applicable Requirement Summary Table. The high level terms are sometimes used in SOPs when unit attribute forms have not yet been updated due to regulatory amendments.

d. Accuracy of PBR information provided on the supplemental table and in the permit – please refer to Forms OP-PBRSUP and OP-REQ1 Instructions.

If you have any questions or concerns on any of these items or think you need to do any additional updates, let me know and we can discuss further.

I have conducted a technical review of this application and I have attached an electronic copy of the Working Draft Permit (WDP) for your review. This WDP contains the TCEQ determination of applicable requirements based on the information submitted in your application, and any updates provided.

Please review the WDP and submit to me any comments you have regarding it by April 10, 2026. Please submit a written response by this deadline, even if you are not making any comments on the content of the WDP.

Please review the "SOP Technical Review Fact Sheet" located at http://www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title_V/sop_wdp_factsheet.pdf. This guidance contains important information regarding the review process, application updates, WDP review and comment procedures.

-
Note that a Certification by Responsible Official (Form OP-CRO1) for any uncertified submittals, including application updates supporting the WDP comments is required to be submitted with the WDP response. After final review of the WDP, additional changes, supported by application updates, may require certification. I will advise you of these changes at a later date. Prior to transmittal of the Public Notice/Announcement Authorization Package, a duly signed OP-CRO1 form may be required which includes the specific dates or time-period of all submitted application documentation that were not previously certified. I will advise you of this requirement prior to sending the Public Notice/Announcement Authorization.

-
Application updates may now be submitted through Title V STEERS. Any application updates that are submitted by the RO/DAR through STEERS are certified and do not require the submittal of an original signature OP-CRO1. Application updates that are provided through email or physical mail require certification using an original signature OP-CRO1.

-
Please notify me when these updates have been submitted.

-

As required on Form OP-1, question IV.D, please remember the FOP application and all application updates must be submitted to EPA Region 6 at R6AirPermitsTX@epa.gov and to the TCEQ regional office having jurisdiction. This submittal information can be found on our website at [Where to Submit FOP Applications and Permit-Related Documents](#).

-

Contact me if you have any questions regarding the guidelines, the project schedule, or any other details regarding your application or permit.

Thank you for your cooperation.

Sincerely,

Ulises Luna (he/him)

Air Permits Division

Texas Commission on Environmental Quality

P.O. Box 13087, MC 163

Austin, TX 78711

Phone: (512) 239-6640



- How are we doing? Fill out our online customer satisfaction survey at www.tceq.texas.gov/customersurvey

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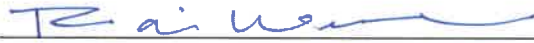
Form OP-CRO1
Certification by Responsible Official
Federal Operating Permit Program
Texas Commission on Environmental Quality

All initial issuance, revision, renewal, and reopening permit application submittals requiring certification must be addressed using this form. Updates to site operating permit (SOP) and temporary operating permit (TOP) applications, other than public notice verification materials, must be certified prior to authorization of public notice or start of public announcement. Updates to general operating permit (GOP) applications must be certified prior to receiving an authorization to operate under a GOP.

I. Identifying Information
RN: RN100218247
CN: CN600129589
Account No.: HG 0225 N
Permit No.: O 2285
Project No.: 39026
Area Name: Specialties Unit
Company Name: Albemarle Corporation
II. Certification Type <i>(Please mark appropriate box)</i>
☒ Responsible Official ☐ Duly Authorized Representative
III. Submittal Type <i>(Please mark appropriate box) (Only one response can be accepted per form)</i>
☐ SOP/TOP Initial Permit Application ☐ Permit Revision, Renewal, or Reopening
☐ GOP Initial Permit Application ☒ Update to Permit Application
☐ Other: _____

Form OP-CRO1
Certification by Responsible Official
Federal Operating Permit Program
Texas Commission on Environmental Quality

All initial issuance, revision, and renewal permit application submittals requiring certification must be accompanied by this form. Updates to acid rain or CSAPR (other than public notice verification materials) must be certified prior to authorization of public notice for the draft permit.

IV. Certification of Truth	
This certification does not extend to information which is designated by TCEQ as information for reference only.	
I, <u>Raina Warden</u> certify that I am the <u>RO</u>	
<i>(Certifier Name printed or typed)</i>	<i>(RO or DAR)</i>
and that, based on information and belief formed after reasonable inquiry, the statements and information dated during the time period or on the specific date(s) below, are true, accurate, and complete:	
<i>Note: Enter Either a Time Period or Specific Date(s) for each certification. This section must be completed. The certification is not valid without documentation date(s).</i>	
Time Period: From <u>9/16/2025</u> to <u>5/26/2026</u>	
<i>(Start Date)</i>	<i>(End Date)</i>
Specific Dates: _____	
<i>(Date 1)</i>	<i>(Date 2)</i>
<i>(Date 3)</i>	<i>(Date 4)</i>
<i>(Date 5)</i>	<i>(Date 6)</i>
Signature: <u></u> Signature Date: <u>5/26/2026</u>	
Title: <u>Site Director</u>	

Texas Commission on Environmental Quality

Title V Existing

2285

Site Information (Regulated Entity)

What is the name of the permit area to be authorized?	SPECIALTIES UNIT
Does the site have a physical address?	Yes
Physical Address	
Number and Street	2500 N SOUTH ST
City	PASADENA
State	TX
ZIP	77503
County	HARRIS
Latitude (N) (##.#####)	29.738888
Longitude (W) (-###.#####)	95.168055
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)?	RN100218247
What is the name of the Regulated Entity (RE)?	ALBEMARLE PASADENA PLANT
Does the RE site have a physical address?	Yes
Physical Address	
Number and Street	2500 N SOUTH ST
City	PASADENA
State	TX
ZIP	77503
County	HARRIS
Latitude (N) (##.#####)	29.738888
Longitude (W) (-###.#####)	-95.168055
Facility NAICS Code	
What is the primary business of this entity?	INDUSTRIAL CHEMICAL MFG

Customer (Applicant) Information

How is this applicant associated with this site?	Owner Operator
What is the applicant's Customer Number (CN)?	CN600129589
Type of Customer	Corporation
Full legal name of the applicant:	
Legal Name	Albemarle Corporation
Texas SOS Filing Number	9875306
Federal Tax ID	
State Franchise Tax ID	15416921185
State Sales Tax ID	

Local Tax ID	
DUNS Number	825080096
Number of Employees	251-500
Independently Owned and Operated?	No

Responsible Official Contact

Person TCEQ should contact for questions about this application:

Organization Name	ALBEMARLE CORPORATION
Prefix	MS
First	RAINA
Middle	
Last	WARDEN
Suffix	
Credentials	
Title	PASADENA SITE DIRECTOR
Enter new address or copy one from list:	
Mailing Address	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	PO BOX 2500
Routing (such as Mail Code, Dept., or Attn:)	
City	PASADENA
State	TX
ZIP	77501
Phone (###-###-####)	7137401189
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	raina.warden@albemarle.com

Technical Contact

Person TCEQ should contact for questions about this application:

Select existing TC contact or enter a new contact.	New Contact
Organization Name	Albemarle Corporation
Prefix	MR
First	Chris
Middle	
Last	Arceneaux
Suffix	
Credentials	
Title	Environmental Professional
Enter new address or copy one from list:	Responsible Official Contact
Mailing Address	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	PO BOX 2500

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

City

PASADENA

State

TX

ZIP

77501

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

7137401160

Extension

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

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

E-mail

chris.arceneaux@albemarle.com

Title V General Information - Existing

1) Permit Type:	SOP
2) Permit Latitude Coordinate:	29 Deg 44 Min 20 Sec
3) Permit Longitude Coordinate:	95 Deg 10 Min 5 Sec
4) Is this submittal a new application or an update to an existing application?	Update
4.1. Select the permit/project number for which this update should be applied.	2285-39026
5) Does this application include Acid Rain Program or Cross-State Air Pollution Rule requirements?	No

Title V Attachments Existing

Attach OP-1 (Site Information Summary)

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

Attach OP-ACPS (Application Compliance Plan and Schedule)

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 Void Request Form

Attach any other necessary information needed to complete the permit.

[File Properties]

File Name	Signed OP-CRO1 2026 0526.pdf
Hash	CDECC7F926C9F540F7A15D81A0AF52E34B2747EFF41FE39AFF282EBC850EE7C8
MIME-Type	application/pdf

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

Certification

I certify that I am the Responsible Official 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 Raina Warden, the owner of the STEERS account ER116868.
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 2285.
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: Raina Warden OWNER OPERATOR

Account Number:	ER116868
Signature IP Address:	12.63.245.242
Signature Date:	2026-05-26
Signature Hash:	CA4D1B8ED2CEA5BE78FBF7CF677175C7609DDF927F9F31E904A388CAF77F7EDA
Form Hash Code at time of Signature:	65A169CFF612DA75F3C361FA471526FEF83EA752677816F81FAA9ABC7D7D5D6E

Submission

Reference Number:	The application reference number is 927536
Submitted by:	The application was submitted by ER116868/Raina Warden
Submitted Timestamp:	The application was submitted on 2026-05-26 at 17:01:14 CDT
Submitted From:	The application was submitted from IP address 12.63.245.242
Confirmation Number:	The confirmation number is 772394
Steers Version:	The STEERS version is 6.94
Permit Number:	The permit number is 2285

Additional Information

Application Creator: This account was created by Chris A Arceneaux

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

Date: 05/21/2026
Permit No.:O-2285
Regulated Entity No.: RN100218247
Company Name: Albemarle Corporation

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

Revision No.	Revision Code	New Unit	Unit/Group	Process	NSR Authorization	Description of Change and Provisional Terms and Conditions
			ID No.	Applicable Form		
10	MS-C	No	PRO- DF1BATCH		69A	Propose to remove SOP Index No. R5162-001. R5162-002 needs to remain.
11	MS-C	No	PRO- MP1BATCH		3962	Propose to remove SOP Index No. R5162-001. R5162-002 needs to remain.

Application Area-Wide Applicability Determinations and General Information

Form OP-REQ1 (Page 84)

Federal Operating Permit Program

Texas Commission on Environmental Quality

Date	Permit No.	Regulated Entity No.
May 21, 2026	O-2285	RN100218247

For SOP applications, answer ALL questions unless otherwise directed.

◆ For GOP applications, answer ONLY these questions unless otherwise directed.

XI. Miscellaneous (continued)		
L. Compliance Assurance Monitoring		
◆ 1.	The application area includes at least one unit that does not meet the CAM exemptions in 40 CFR § 64.2(b) for all applicable requirements that it is subject to, and the unit has a pre-control device potential to emit greater than or equal to the amount in tons per year required in a site classified as a major source. <i>If the response to Question XI.L.1 is "No," go to Section XI.M.</i>	☐ Yes ☒ No
◆ 2.	The unit or units defined by XI.L.1 are using a control device to comply with an applicable requirement. <i>If the response to Question XI.L.2 is "No," go to Section XI.M.</i>	☐ Yes ☐ No
◆ 3.	The permit holder has submitted a CAM proposal on Form OP-MON in a previous application.	☐ Yes ☐ No
◆ 4.	The owner/operator or permit holder is submitting a CAM proposal on Form OP-MON according to the deadlines for submittals in 40 CFR § 64.5 in this application. <i>If the responses to Questions XI.L.3 and XI.L.4 are both "No," go to Section XI.M.</i>	☐ Yes ☐ No
5.	The owner/operator or permit holder is submitting a CAM implementation plan and schedule to be incorporated as enforceable conditions in the permit.	☐ Yes ☐ No
6.	Provide the unit identification numbers for the units for which the applicant is submitting a CAM implementation plan and schedule in the space below.	
◆ 7.	At least one unit defined by XI.L.1 and XI.L.2 is using a CEMS, COMS or PEMS meeting the requirements of 40 CFR § 64.3(d)(2).	☐ Yes ☐ No
◆ 8.	All units defined by XI.L.1 and XI.L.2 are using a CEMS, COMS or PEMS meeting the requirements of 40 CFR § 64.3(d)(2). <i>If the response to Question XI.L.8 is "Yes," go to Section XI.M.</i>	☐ Yes ☐ No

Application Area-Wide Applicability Determinations and General Information

Form OP-REQ1 (Page 85)

Federal Operating Permit Program

Texas Commission on Environmental Quality

Date	Permit No.	Regulated Entity No.
May 21, 2026	O-2285	RN100218247

For SOP applications, answer ALL questions unless otherwise directed.

◆ For GOP applications, answer ONLY these questions unless otherwise directed.

XI. Miscellaneous (continued)		
L. Compliance Assurance Monitoring (continued)		
◆ 9.	At least one of the CAM proposals as described by question XI.L.3 or XI.L.4 addresses particulate matter, and the emission unit has a capture system as defined in 40 CFR §64.1.	☐ Yes ☐ No
◆ 10.	At least one of the CAM proposals as described by question XI.L.3 or XI.L.4 addresses VOC, and the emission unit has a capture system as defined in 40 CFR §64.1.	☐ Yes ☐ No
◆ 11.	At least one of the CAM proposals as described by question XI.L.3 or XI.L.4 addresses a regulated pollutant other than particulate matter or VOC, and the emission unit has a capture system as defined in 40 CFR §64.1.	☐ Yes ☐ No
◆ 12.	The control device in the CAM proposal as described by question XI.L.3 or XI.L.4 has a bypass.	☐ Yes ☐ No
M. Title 30 TAC Chapter 113, Subchapter D, Division 5 - Emission Guidelines and Compliance Times		
◆ 1.	The application area includes at least one air curtain incinerator that commenced construction on or before December 9, 2004. <i>If the response to Question XI.M.1 is "No," or "N/A," go to Section XII.</i>	☐ Yes ☒ No ☐ N/A
◆ 2.	All air curtain incinerators constructed on or before December 9, 2004 combust only wood waste, clean lumber, or yard waste or a mixture of these materials.	☐ Yes ☐ No
XII. New Source Review (NSR) Authorizations		
A. Waste Permits with Air Addendum		
◆ 1.	The application area includes a Municipal Solid Waste Permit or an Industrial Hazardous Waste with an Air Addendum. <i>If the response to XII.A.1 is "Yes," include the waste permit numbers and issuance date in Section XII.J.</i>	☐ Yes ☐ No

Application Area-Wide Applicability Determinations and General Information
Form OP-REQ1 (Page 88)
Federal Operating Permit Program
Texas Commission on Environmental Quality

Date	Permit No.	Regulated Entity No.
05/18/2026	O-2285	RN100218247

For SOP applications, answer ALL questions unless otherwise directed.

◆ For GOP applications, answer ONLY these questions unless otherwise directed.

XII. NSR Authorizations (Attach additional sheets if necessary for sections XII.E-J.)

E. PSD Permits and PSD Major Pollutants

Permit No.	Issuance Date	Pollutant(s):	Permit No.	Issuance Date	Pollutant(s):

If PSD Permits are held for the application area, please complete the Major NSR Summary Table located under the Technical Forms heading at: www.tceq.texas.gov/permitting/air/titlev/site/site_experts.html.

F. Nonattainment (NA) Permits and NA Major Pollutants

Permit No.	Issuance Date	Pollutant(s):	Permit No.	Issuance Date	Pollutant(s):

If NA Permits are held for the application area, please complete the Major NSR Summary Table located under the Technical Forms heading at: www.tceq.texas.gov/permitting/air/titlev/site/site_experts.html.

G. NSR Authorizations with FCAA § 112(g) Requirements

NSR Permit No.	Issuance Date	NSR Permit No.	Issuance Date	NSR Permit No.	Issuance Date
3962	09/23/2024				
69A	09/23/2024				



Albemarle Corporation
Pasadena Plant
2500 N South Street
Pasadena, Texas 77503
P.O. Box 2500
Pasadena, Texas 77501-2500

www.albemarle.com

April 14, 2026

Submitted via STEERS

Ulises Luna
Texas Commission on Environmental Quality
Air Permits Division, MC-163
P.O. Box 13087
Austin, Texas 78711-3087
Ulises.Luna@TCEQ.Texas.Gov

Subject: Technical Review/Working Draft Permit Response Letter
TV O-2285 Minor Revision/Renewal
Pasadena Plant, Pasadena, Harris County
Regulated Entity Number: RN100218247
Customer Reference Number: CN600129589
Project Number: 39026

Dear Mr. Luna:

As of March 1, 2026, the ownership of the Pasadena Plant was transferred from Ketjen LLC to Albemarle Corporation. The Regulated Entity Number (RN) of 100218247 and Air Quality Account Number of HG-0225-N did not change. The Customer Reference Number (CN) did change from 606211746 (Ketjen LLC) to 600129589 (Albemarle Corporation).

Albemarle Corporation ("Albemarle"), known formerly as Ketjen Limited Liability Company ("Ketjen"), is providing this response regarding your email dated April 10, 2026 2:28 PM for TCEQ Project 39026. Your email requested an updated OP-UA15 Table 12a for SOP Index Number R5720-07. The requested updated form is attached.

Please do not hesitate to contact me at Chris.Arceneaux@Albemarle.com or (713)740-1160 if you have any questions or require further information regarding this matter.

Sincerely,

Albemarle Corporation

Chris Arceneaux

Chris Arceneaux
Environmental Professional

Attachment: Updated OP-UA15 Table 12a

ATTACHMENT 1

Updated OP-UA15 Table 1

Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes
Form OP-UA15
Federal Operating Permit Program
Texas Commission on Environmental Quality

Table 12a: Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115)
Subchapter H, Division 1: Highly-Reactive Volatile Organic Compounds-Vent Gas Control

Emission Point ID No.	SOP Index No.	HRVOC Concentration	Max Flow Rate	Exempt Date	Vent Gas Stream Control
G-G-5	R5720-05	NO	YES	NO	
G-G-6	R5720-03	NO	NO		UNCON
G-G-7	R5720-03	NO	NO		UNCON
T-G-6	R5720-03	NO	NO		UNCON
T-G-7	R5720-03	NO	NO		UNCON
T-H-8	R5720-03	NO	NO		UNCON
T-K-6	R5720-03	NO	NO		UNCON
T-K-6	R5720-07	YES	NO	NO	
T-K-8	R5720-06	YES	YES	NO	

[Go to the Table of Contents](#)

Texas Commission on Environmental Quality

Title V Existing

2285

Site Information (Regulated Entity)

What is the name of the permit area to be authorized?	SPECIALTIES UNIT
Does the site have a physical address?	Yes
Physical Address	
Number and Street	2500 N SOUTH ST
City	PASADENA
State	TX
ZIP	77503
County	HARRIS
Latitude (N) (##.#####)	29.738888
Longitude (W) (-###.#####)	95.168055
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)?	RN100218247
What is the name of the Regulated Entity (RE)?	ALBEMARLE PASADENA PLANT
Does the RE site have a physical address?	Yes
Physical Address	
Number and Street	2500 N SOUTH ST
City	PASADENA
State	TX
ZIP	77503
County	HARRIS
Latitude (N) (##.#####)	29.738888
Longitude (W) (-###.#####)	-95.168055
Facility NAICS Code	
What is the primary business of this entity?	INDUSTRIAL CHEMICAL MFG

Customer (Applicant) Information

How is this applicant associated with this site?	Owner Operator
What is the applicant's Customer Number (CN)?	CN600129589
Type of Customer	Corporation
Full legal name of the applicant:	
Legal Name	Albemarle Corporation
Texas SOS Filing Number	9875306
Federal Tax ID	
State Franchise Tax ID	15416921185
State Sales Tax ID	

Local Tax ID	
DUNS Number	825080096
Number of Employees	251-500
Independently Owned and Operated?	No

Responsible Official Contact

Person TCEQ should contact for questions about this application:

Organization Name	ALBEMARLE CORPORATION
Prefix	MS
First	RAINA
Middle	
Last	WARDEN
Suffix	
Credentials	
Title	PASADENA SITE DIRECTOR
Enter new address or copy one from list:	
Mailing Address	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	PO BOX 2500
Routing (such as Mail Code, Dept., or Attn:)	
City	PASADENA
State	TX
ZIP	77501
Phone (###-###-####)	7137401189
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	raina.warden@albemarle.com

Technical Contact

Person TCEQ should contact for questions about this application:

Select existing TC contact or enter a new contact.	CHRIS ARCENEUX(KETJEN LIMITED ...)
Organization Name	KETJEN LIMITED LIABILITY COMPANY
Prefix	MR
First	CHRIS
Middle	
Last	ARCENEUX
Suffix	
Credentials	
Title	ENVIRONMENTAL PROFESSIONAL
Enter new address or copy one from list:	
Mailing Address	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	PO BOX 2500

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

City

PASADENA

State

TX

ZIP

77501

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

7137401160

Extension

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

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

E-mail

chris.arceneaux@albemarle.com

Title V General Information - Existing

1) Permit Type:	SOP
2) Permit Latitude Coordinate:	29 Deg 44 Min 20 Sec
3) Permit Longitude Coordinate:	95 Deg 10 Min 5 Sec
4) Is this submittal a new application or an update to an existing application?	Update
4.1. Select the permit/project number for which this update should be applied.	2285-39026
5) Does this application include Acid Rain Program or Cross-State Air Pollution Rule requirements?	No

Title V Attachments Existing

Attach OP-1 (Site Information Summary)

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

Attach OP-ACPS (Application Compliance Plan and Schedule)

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 Void Request Form

Attach any other necessary information needed to complete the permit.

[File Properties]

File Name	Albemarle Response 2026 04 14.pdf
Hash	15FBF3656DE97955B134449820A54533AF35AA0A4EB9CF4933BC42D19EEBDF87
MIME-Type	application/pdf

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

Certification

I certify that I am the Responsible Official 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 Raina Warden, the owner of the STEERS account ER116868.
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 2285.
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: Raina Warden OWNER OPERATOR

Account Number:	ER116868
Signature IP Address:	12.63.245.242
Signature Date:	2026-04-14
Signature Hash:	CA4D1B8ED2CEA5BE78FBF7CF677175C7609DDF927F9F31E904A388CAF77F7EDA
Form Hash Code at time of Signature:	5BEF3A90AF0677B4BB156683D36812E431EA7253B80C3D2D3CCA97180881C2A7

Submission

Reference Number:	The application reference number is 916561
Submitted by:	The application was submitted by ER116868/Raina Warden
Submitted Timestamp:	The application was submitted on 2026-04-14 at 15:29:10 CDT
Submitted From:	The application was submitted from IP address 12.63.245.242
Confirmation Number:	The confirmation number is 762323
Steers Version:	The STEERS version is 6.94
Permit Number:	The permit number is 2285

Additional Information

Application Creator: This account was created by Chris A Arceneaux

Texas Commission on Environmental Quality

Title V Existing

2285

Site Information (Regulated Entity)

What is the name of the permit area to be authorized?	SPECIALTIES UNIT
Does the site have a physical address?	Yes
Physical Address	
Number and Street	2500 N SOUTH ST
City	PASADENA
State	TX
ZIP	77503
County	HARRIS
Latitude (N) (##.#####)	29.738888
Longitude (W) (-###.#####)	95.168055
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)?	RN100218247
What is the name of the Regulated Entity (RE)?	KETJEN PASADENA PLANT
Does the RE site have a physical address?	Yes
Physical Address	
Number and Street	2500 N SOUTH ST
City	PASADENA
State	TX
ZIP	77503
County	HARRIS
Latitude (N) (##.#####)	29.738888
Longitude (W) (-###.#####)	-95.168055
Facility NAICS Code	
What is the primary business of this entity?	INDUSTRIAL CHEMICAL MFG

Customer (Applicant) Information

How is this applicant associated with this site?	Owner Operator
What is the applicant's Customer Number (CN)?	CN606211746
Type of Customer	Corporation
Full legal name of the applicant:	
Legal Name	Ketjen Limited Liability Company
Texas SOS Filing Number	804803653
Federal Tax ID	884253232
State Franchise Tax ID	32087070283
State Sales Tax ID	
Local Tax ID	
DUNS Number	119071852
Number of Employees	501+
Independently Owned and Operated?	No

Responsible Official Contact

Person TCEQ should contact for questions about this application:	
Organization Name	Ketjen Limited Liability Company
Prefix	MS
First	Lisa
Middle	
Last	Frugé
Suffix	
Credentials	
Title	Plant Manager
Enter new address or copy one from list:	
Mailing Address	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	PO BOX 2500
Routing (such as Mail Code, Dept., or Attn:)	
City	PASADENA
State	TX
ZIP	77501

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

7137401166

Extension

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

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

E-mail

lisa.fruge@ketjen.com

Technical Contact

Person TCEQ should contact for questions about this application:

Select existing TC contact or enter a new contact.

CHRIS ARCENEUX(KETJEN LIMITED ...)

Organization Name

KETJEN LIMITED LIABILITY COMPANY

Prefix

MR

First

CHRIS

Middle

Last

ARCENEUX

Suffix

Credentials

Title

ENVIRONMENTAL PROFESSIONAL

Enter new address or copy one from list:

Mailing Address

Address Type

Domestic

Mailing Address (include Suite or Bldg. here, if applicable)

PO BOX 2500

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

City

PASADENA

State

TX

ZIP

77501

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

7137401160

Extension

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

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

E-mail

Chris.Arceneaux@Ketjen.com

Title V General Information - Existing

1) Permit Type:

SOP

2) Permit Latitude Coordinate:

29 Deg 44 Min 20 Sec

3) Permit Longitude Coordinate:	95 Deg 10 Min 5 Sec
4) Is this submittal a new application or an update to an existing application?	New Application
4.1. What type of permitting action are you applying for?	Streamlined Revision
4.1.1. Are there any permits that should be voided upon issuance of this permit application through permit conversion?	No
4.1.2. Are there any permits that should be voided upon issuance of this permit application through permit consolidation?	No
5) Does this application include Acid Rain Program or Cross-State Air Pollution Rule requirements?	No

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.

[File Properties]

File Name

Ketjen
Title V O2285 Revision 2025-0916 signed.pdf

Hash

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MIME-Type

application/pdf

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

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 Responsible Official 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 Lisa Fruge, the owner of the STEERS account ER068673.
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 2285.
9. My signature indicates that I am in agreement with the information on this form, and authorize its submittal to the TCEQ.

OWNER OPERATOR Signature: Lisa Fruge OWNER OPERATOR

Account Number:

ER068673

Signature IP Address:

12.196.187.18

Signature Date:

2025-09-17

Signature Hash:

61AFA8E28B9CC64E46F35915D8A98F82C63368924F23EB8DFC6A19EF4EDD6445

Form Hash Code at time of Signature:

49AD80A99F08BAC3771C4658DDDFC6FB7071AAADC223DE32CF28C4D1BCF7F0AA

Submission

Reference Number:

The application reference number is 818038

Submitted by:

The application was submitted by ER068673/Lisa Fruge

Submitted Timestamp:

The application was submitted on 2025-09-17 at 12:48:48 CDT

Submitted From:

The application was submitted from IP address 12.196.187.18

Confirmation Number:

The confirmation number is 678772

Steers Version:

The STEERS version is 6.92

Permit Number:

The permit number is 2285

Additional Information

Application Creator: This account was created by Chris A Arceneaux

September 16, 2025

Submitted via STEERS

Subject: Title V Revision
Title V Permit No. O-2285
Ketjen Pasadena Plant
CN606211746, RN100218247

To Whom it May Concern:

As required by 30 TAC §122.211, Ketjen submits this Title V Minor Permit Revision Application for FOP O-2285. The following changes are being requested:

1. Adding sitewide applicability to 40 CFR 61 Subpart FF (BWON).
2. Updating applicability for 30 TAC Chapter 115, Subchapter H (HRVOC vents).

Ketjen is requesting this revision as part of a corrective action for an internal audit performed under the Texas Audit Privilege Act (Investigation No. 1923367). The following forms are being submitted via STEERS: OP-2, OP-REQ1 (page 30), OP-UA15, and OP-REQ3.

If you need any additional information, please contact me at 713-740-1160 or by email at Chris.Arceneaux@ketjen.com.

Sincerely,

Ketjen LLC



Chris Arceneaux
Environmental Professional

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

Date: 9/16/2025	
Permit No.: O-2285	
Regulated Entity No.: RN100218247	
Company Name: Ketjen LLC	
For Submissions to EPA	
Has an electronic copy of this application been submitted (or is being submitted) to EPA? ☒ YES ☐ NO	
I. 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 ☒ 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 Source Pollutants (Complete this section if the permit revision is due to a change at the site or change in regulations.)

Indicate all pollutants for which the site is a major source based on the site's potential to emit:
(Check the appropriate box[es].)

☒ VOC ☒ NO_x ☐ SO₂ ☐ PM₁₀ ☒ CO ☐ Pb ☐ HAP

Other:

IV. Reference Only Requirements (For reference only)

Has the applicant paid emissions fees for the most recent agency fiscal year (September 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: 9/16/2025
Permit No.: O-2285
Regulated Entity No.: RN100218247
Company Name: Ketjen LLC

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

Revision No.	Revision Code		Unit/Group	Process	NSR Authorization	Description of Change and Provisional Terms and Conditions
		New Unit	ID No.	Applicable Form		
1	ADMIN-C	No	Sitewide	OP-REQ1		Add sitewide applicability to 40 CFR 61 Subpart FF.
2	MS-C	No	G-G-5	OP-UA15		Adding Chapter 115, Subchapter H (HRVOC) applicability.
3	MS-C	No	G-G-6	OP-UA15		Adding Chapter 115, Subchapter H (HRVOC) applicability.
4	MS-C	No	G-G-7	OP-UA15		Adding Chapter 115, Subchapter H (HRVOC) applicability.
5	MS-C	No	T-G-6	OP-UA15		Adding Chapter 115, Subchapter H (HRVOC) applicability.
6	MS-C	No	T-G-7	OP-UA15		Adding Chapter 115, Subchapter H (HRVOC) applicability.
7	MS-C	No	T-H-8	OP-UA15		Adding Chapter 115, Subchapter H (HRVOC) applicability.
8	MS-C	No	T-K-6	OP-UA15		Updating Chapter 115, Subchapter H (HRVOC) applicability.
9	MS-C	No	T-K-8	OP-UA15		Adding Chapter 115, Subchapter H (HRVOC) applicability.

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

Date: 9/16/2025	
Permit No.: O-2285	
Regulated Entity No.: RN100218247	
Company Name: Ketjen Pasadena Plant	
I. Significant Revision <i>(Complete this section if you are submitting a significant revision application or a renewal application that includes a significant revision.)</i>	
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:
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
N/A	N/A

Application Area-Wide Applicability Determinations and General Information
Form OP-REQ1 (Page 30)
Federal Operating Permit Program
Texas Commission on Environmental Quality

Date	Permit No.	Regulated Entity No.
9/16/2025	O-2285	RN100218247

- ◆ For SOP applications, answer ALL questions unless otherwise directed.
◆ For GOP applications, answer ONLY these questions unless otherwise directed.

VII. Title 40 Code of Federal Regulations Part 61 - National Emission Standards for Hazardous Air Pollutants (continued)	
G. Subpart BB - National Emission Standard for Benzene Emissions from Benzene Transfer Operations (continued)	
3. The application area includes benzene transfer operations at railcar loading racks.	☐ Yes ☐ No
4. The application area includes benzene transfer operations at tank-truck loading racks.	☐ Yes ☐ No
H. Subpart FF - National Emission Standard for Benzene Waste Operations	
Applicability	
1. The application area includes a chemical manufacturing plant, coke by-product recovery plant, or petroleum refinery facility as defined in § 61.341.	☒ Yes ☐ No
2. The application area is located at a hazardous waste treatment, storage, and disposal (TSD) facility site as described in 40 CFR § 61.340(b). <i>If the responses to Questions VII.H.1 and VII.H.2 are both "No," go to Section VIII.</i>	☐ Yes ☒ No
3. The application area is located at a site that has no benzene onsite in wastes, products, byproducts, or intermediates. <i>If the response to Question VII.H.3 is "Yes," go to Section VIII.</i>	☐ Yes ☒ No
4. The application area is located at a site having a total annual benzene quantity from facility waste less than 1 megagram per year (Mg/yr). <i>If the response to Question VII.H.4 is "Yes," go to Section VIII</i>	☒ Yes ☐ No
5. The application area is located at a site having a total annual benzene quantity from facility waste greater than or equal to 1 Mg/yr but less than 10 Mg/yr. <i>If the response to Question VII.H.5 is "Yes," go to Section VIII.</i>	☐ Yes ☐ No

Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes
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Table 12a: Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115)
Subchapter H, Division 1: Highly-Reactive Volatile Organic Compounds-Vent Gas Control

Emission Point ID No.	SOP Index No.	HRVOC Concentration	Max Flow Rate	Exempt Date	Vent Gas Stream Control
G-G-5	R5720-05	NO	YES	NO	
G-G-6	R5720-03	NO	NO		UNCON
G-G-7	R5720-03	NO	NO		UNCON
T-G-6	R5720-03	NO	NO		UNCON
T-G-7	R5720-03	NO	NO		UNCON
T-H-8	R5720-03	NO	NO		UNCON
T-K-6	R5720-03	NO	NO		UNCON
T-K-6	R5720-07	YES	NO		
T-K-8	R5720-06	YES	YES	NO	

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Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes
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Texas Commission on Environmental Quality

Table 12b: Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115)
Subchapter H, Division 1: Highly-Reactive Volatile Organic Compounds-Vent Gas Control

Emission Point ID No.	SOP Index No.	AM	AM ID No.	Minor Modification	Minor Modification ID No.	Process Knowledge	Waived Testing	Testing Requirements
G-G-6	R5720-03	NO		NO		YES	NO	725A
G-G-7	R5720-03	NO		NO		YES	NO	725A
T-G-6	R5720-03	NO		NO		YES	NO	725A
T-G-7	R5720-03	NO		NO		YES	NO	725A
T-H-8	R5720-03	NO		NO		YES	NO	725A
T-K-6	R5720-03	NO		NO		YES	NO	725A

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

Table 1a: Additions

Date: 9/16/2025	Regulated Entity No.: RN100218247	Permit No.: O-2285
Company Name: Ketjen LLC	Area Name: Specialties Unit	

Revision No.	Unit/Group/Process ID No.	Unit/Group/Process Applicable Form	SOP/GOP Index No	Pollutant	Applicable Regulatory Requirement Name	Applicable Regulatory Requirement Standard(s)
2	G-G-5	OP-UA15	R5720-05	VOC	Chapter 115	115.727(c)(2)
3	G-G-6	OP-UA15	R5720-03	VOC	Chapter 115	115.722(c)(1) 115.722(c)(3), 115.725(a)(1)(A)-(C), 115.725(a)(3), [G]115.725(a)(4), [G]115.725(l), 115.725(n), [G]115.726(a)(2)
4	G-G-7	OP-UA15	R5720-03	VOC	Chapter 115	115.722(c)(1) 115.722(c)(3), 115.725(a)(1)(A)-(C), 115.725(a)(3), [G]115.725(a)(4), [G]115.725(l), 115.725(n), [G]115.726(a)(2)
5	T-G-6	OP-UA15	R5720-03	VOC	Chapter 115	115.722(c)(1) 115.722(c)(3), 115.725(a)(1)(A)-(C), 115.725(a)(3), [G]115.725(a)(4), [G]115.725(l), 115.725(n), [G]115.726(a)(2)
6	T-G-7	OP-UA15	R5720-03	VOC	Chapter 115	115.722(c)(1) 115.722(c)(3), 115.725(a)(1)(A)-(C), 115.725(a)(3), [G]115.725(a)(4), [G]115.725(l), 115.725(n), [G]115.726(a)(2)
7	T-H-8	OP-UA15	R5720-03	VOC	Chapter 115	115.722(c)(1) 115.722(c)(3), 115.725(a)(1)(A)-(C), 115.725(a)(3), [G]115.725(a)(4), [G]115.725(l), 115.725(n), [G]115.726(a)(2)

8	T-K-6	OP-UA15	R5720-03	VOC	Chapter 115	115.722(c)(1) 115.722(c)(3), 115.725(a)(1)(A)-(C), 115.725(a)(3), [G]115.725(a)(4), [G]115.725(l), 115.725(n), [G]115.726(a)(2)
8	T-K-6	OP-UA15	R5720-07	VOC	Chapter 115	115.727(c)(2)
9	T-K-8	OP-UA15	R5720-06	VOC	Chapter 115	115.727(c)(2)

**Applicable Requirements Summary
Form OP-REQ3 (Page 2)
Federal Operating Permit Program**

Table 1b: Additions

Date: 9/16/2025	Regulated Entity No.: RN100218247	Permit No.: O-2285
Company Name: Ketjen LLC	Area Name: Specialties Unit	

Revision No.	Unit/Group/Process ID No.	SOP/GOP Index No.	Pollutant	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
2	G-G-5	R5720-05	VOC	None	115.726(e)(3)(A), 115.726(j)(2)	None
3	G-G-6	R5720-03	VOC	115.725(a), 115.725(a)(1)(A)-(C), 115.725(a)(3), 115.725(a)(3)(B), [G]115.725(a)(4), 115.725(a)(5),	115.726(b)(1), 115.726(b)(2)-(3), [G]115.726(h), 115.726(i) 115.726(j)(1), 115.726(j)(2)	115.725(a)(5), [G]115.725(a)(4), 115.725(n), [G]115.726(a)(2)
4	G-G-7	R5720-03	VOC	115.725(a), 115.725(a)(1)(A)-(C), 115.725(a)(3), 115.725(a)(3)(B), [G]115.725(a)(4), 115.725(a)(5),	115.726(b)(1), 115.726(b)(2)-(3), [G]115.726(h), 115.726(i) 115.726(j)(1), 115.726(j)(2)	115.725(a)(5), [G]115.725(a)(4), 115.725(n), [G]115.726(a)(2)
5	T-G-6	R5720-03	VOC	115.725(a), 115.725(a)(1)(A)-(C), 115.725(a)(3), 115.725(a)(3)(B), [G]115.725(a)(4), 115.725(a)(5),	115.726(b)(1), 115.726(b)(2)-(3), [G]115.726(h), 115.726(i) 115.726(j)(1), 115.726(j)(2)	115.725(a)(5), [G]115.725(a)(4), 115.725(n), [G]115.726(a)(2)

6	T-G-7	R5720-03	VOC	115.725(a), 115.725(a)(1)(A)-(C), 115.725(a)(3), 115.725(a)(3)(B), [G]115.725(a)(4), 115.725(a)(5),	115.726(b)(1), 115.726(b)(2)-(3), [G]115.726(h), 115.726(i) 115.726(j)(1), 115.726(j)(2)	115.725(a)(5), [G]115.725(a)(4), 115.725(n), [G]115.726(a)(2)
7	T-H-8	R5720-03	VOC	115.725(a), 115.725(a)(1)(A)-(C), 115.725(a)(3), 115.725(a)(3)(B), [G]115.725(a)(4), 115.725(a)(5),	115.726(b)(1), 115.726(b)(2)-(3), [G]115.726(h), 115.726(i) 115.726(j)(1), 115.726(j)(2)	115.725(a)(5), [G]115.725(a)(4), 115.725(n), [G]115.726(a)(2)
8	T-K-6	R5720-03	VOC	115.725(a), 115.725(a)(1)(A)-(C), 115.725(a)(3), 115.725(a)(3)(B), [G]115.725(a)(4), 115.725(a)(5),	115.726(b)(1), 115.726(b)(2)-(3), [G]115.726(h), 115.726(i) 115.726(j)(1), 115.726(j)(2)	115.725(a)(5), [G]115.725(a)(4), 115.725(n), [G]115.726(a)(2)
8	T-K-6	R5720-07	VOC	None	115.726(e)(3)(A), 115.726(j)(2)	None
9	T-K-8	R5720-06	VOC	None	115.726(e)(3)(A), 115.726(j)(2)	None