

**Storage Tank/Vessel Attributes
Federal Operating Permit Program
Texas Commission on Environmental Quality**

Form OP-SUM - Individual Unit Summary
Table 1

[illegible]

**Storage Tank/Vessel Attributes
Federal Operating Permit Program
Texas Commission on Environmental Quality**

Form OP-REQ2 - Negative Applicable/Superseded Requirement Determinations

[illegible]

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.

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

Permit By Rule Supplemental Table (Page 1)
Table A: Registered Permits by Rule (30 TAC Chapter 106) for the Application Area
Texas Commission on Environmental Quality

Date	Permit Number	Regulated Entity Number
9/12/2025	O-1537	RN100218247

Unit ID No.	Registration No.	PBR No.	Registration Date
V-A-2	45857	106.433	2/14/2001
A-G-10	155391	106.262	05/18/2022
A-GZ-0	155391	106.262	05/18/2022
K-B-0, K-B-2, K-B-3, K-B-6, K-B-7, K-B-4, C-B-0, K-B-1, K-B-8	157845	106.261/262, 106.532	10/31/2019
C-VT-1	157845	106.472	10/31/2019
I-G-1	166955	106.261/262	11/24/2021
V-F-1	167862	106.261/262	2/24/2022
Natural Gas Odorant System	172960	106.261/262	6/16/2023
NG-GZ-0	180356	106.261/262	6/20/2025

Permit By Rule Supplemental Table (Page 2)
Table B: Claimed (not registered) Permits by Rule (30 TAC Chapter 106) for the Application Area
Texas Commission on Environmental Quality

Date	Permit Number	Regulated Entity Number
9/12/2025	O-1537	RN100218247

Unit ID No.	PBR No.	Version No./Date
Plantwide (Hand-held Machines)	106.265	09/04/2000
PTWASH81-1	106.454	11/01/2001
M-G-8, I-G-3, I-G-2, W-G-8, F-G-0A, F-G-0B, K-G-1, I-G-4	106.472	09/04/2000
M-5402, M-5446, P-2201, P-2421, P-3604, P-3605, P-3606, P-3608, P-4675	106.511	03/14/1997
M-5271, M-5283, M-5401, M-5447, M-5450, M-5452, M-5403, M-5088D, PWRWSHR, M-5454, M-5459, G-8900, M-5300G, M-001, M-003	106.511	09/04/2000
V-A-3	106.512	06/13/2001
I-B-0	106.371	03/14/1997
R-A-1, R-G-1, R-A-2, K-G-2	106.473	03/14/1997
Plantwide (Refrigeration Systems)	106.373	09/04/2000
Plantwide (Maintenance)	106.451	03/14/1997
Lab	106.122	03/14/1997
Plantwide (MSS)	106.263	11/01/2001

Permit By Rule Supplemental Table (Page 3)
Table C: Claimed (not registered) Permits by Rule (30 TAC Chapter 106) for Insignificant Sources for the Application Area
Texas Commission on Environmental Quality

Date	Permit Number	Regulated Entity Number
9/12/2025	O-1537	RN100218247

PBR No.	Version No./Date

Permit By Rule Supplemental Table (Page 4)
Table D: Monitoring Requirements for registered and claimed PBRs for the Application Area
Texas Commission on Environmental Quality

Date	Permit Number	Regulated Entity Number
9/12/2025	O-1537	RN100218247

Unit ID No.	PBR No.	Version No./Date Or Registration No.	Monitoring Requirement
V-A-2	106.433	45857	Ketjen will maintain daily coatings/solvent use, hours of operation, and SDS library.
A-G-10	106.262	155391	Ketjen will use engineering estimates to estimate emissions.
A-GZ-0	106.262	155391	Ketjen will monitor fugitive emissions through their LDAR program.
I-G-1	106.261/262	166955	Ketjen will monitor annual throughput to ensure emissions limits are met.
V-F-1	106.261/262	167862	Ketjen will monitor annual throughput to ensure emissions limits are met.
Plantwide (Hand-held Machines)	106.265	09/04/2000	Ketjen will comply with permit requirements and 106.4.
PTWASH81-1	106.454	11/01/2001	Ketjen will monitor partwasher ooperation with monthly inspections.
M-G-8, I-G-3, I-G-2, W-G-8, F-G-0A, F-G-0B, K-G-1, I-G-4	106.472	09/04/2000	Ketjen will comply with permit requirements and 106.4.
M-5402, M-5446, P-2201, P-2421, P-3604, P-3605, P-3606, P-3608, P-4675, M-5271, M-5283, M-5401, M-5447, M-5450, M-5452, M-5403, M-5088D, PWRWSHR, M-5454, M-5459, G-8900, M-5300G, M-001, M-003	106.511	03/14/1997 and 09/04/2000	Kejten or a third party will maintain engines and engine run times will be estimated when meters are not required.
V-A-3	106.512	06/13/2001	Ketjen will continue to monitor runtime and fuel usage.

Permit By Rule Supplemental Table (Page 5)
Table D: Monitoring Requirements for registered and claimed PBRs for the Application Area
Texas Commission on Environmental Quality

Date	Permit Number	Regulated Entity Number
9/12/2025	O-1537	RN100218247

Unit ID No.	PBR No.	Version No./Date Or Registration No.	Monitoring Requirement
K-B-0, K-B-2, K-B-6, K-B-7, K-B-4, C-B-0, K-B-1, K-B-8	106.532	157845	Ketjen will comply with permit requirements and 106.4.
C-VT-1	106.472	157845	Ketjen will comply with permit requirements and 106.4.
K-B-3	106.261/262	157845	Ketjen will use engineering estimates to estimate emissions.
I-B-0	106.371	03/14/1997	Ketjen will comply with permit requirements and 106.4.
R-A-1, R-G-1, R-A-2, K-G-2	106.473	03/14/1997	Ketjen will monitor annual throughput.
Plantwide (Refrigeration Systems)	106.373	09/04/2000	Ketjen will monitor refrigeration makeup usage.
Plantwide (Maintenance)	106.451	03/14/1997	Ketjen will comply with permit requirements and 106.4.
Lab	106.122	03/14/1997	Ketjen will comply with permit requirements and 106.4.
Plantwide (MSS)	106.263	11/01/2001	Ketjen will keep records of all MSS activities authorized under the PBR to show compliance with 106.4 limits.
Natural Gas Odorant System	106.261/262	172960	Ketjen will use engineering estimates to estimate emissions.
NG-GZ-0	106.261/262	180356	Ketjen will monitor fugitive emissions through their LDAR program.

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

Date: 9/12/2025	
Permit No.: O-1537	
Regulated Entity No.: RN100218247	
Company Name: Ketjen Pasadena Plant	
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: 9/12/2025
Permit No.: O-1537
Regulated Entity No.: RN100218247
Company Name: Ketjen Pasadena Plant

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	YES	F-G-0A	OP-UA3	106.472/09/04/2000	Propose to add new unit to O-1537 Title V permit.
3	MS-C	YES	F-G-0B	OP-UA3	106.472/09/04/2000	Propose to add new unit to O-1537 Title V permit.
4	MS-C	YES	K-G-1	OP-UA3	106.472/09/04/2000	Propose to add new unit to O-1537 Title V permit.
5	MS-C	YES	I-G-4	OP-UA3	106.472/09/04/2000	Propose to add new unit to O-1537 Title V permit.
6	MS-C	YES	NG-GZ-0	OP-PBR SUP	106.261/11/01/2003 106.262/11/01/2003	Propose to add new unit to O-1537 Title V permit.

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

Date: 9/12/2025	
Permit No.: O-1537	
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

September 12, 2025

Submitted via STEERS

Subject: Title V Revision
Title V Permit No. O-1537
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-1537. The following changes are being requested:

1. Adding sitewide applicability to 40 CFR 61 Subpart FF (BWON).
2. Adding existing sulfuric acid storage.
3. Adding existing Permits by Rule to OP-PBRSUP.

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-SUMR, OP-REQ2, and OP-PBRSUP (additions in blue).

If you need any additional information, please contact me at 713-740-1150 or by email at Alyssa.Linares@Ketjen.com.

Sincerely,

Ketjen LLC



Alyssa Linares
Environmental Professional

Texas Commission on Environmental Quality

Title V Existing

1537

Site Information (Regulated Entity)

What is the name of the permit area to be authorized?	UTILITIES 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	FRUGE
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

Duly Authorized Representative Contact

Person TCEQ should contact for questions about this application

Select existing DAR contact or enter a new contact.	DOUG THOMPSON(ALBEMARLE CORPO...)
Organization Name	ALBEMARLE CORPORATION
Prefix	MR
First	DOUG
Middle	
Last	THOMPSON
Suffix	
Credentials	
Title	ENVIRONMENTAL 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 (###-###-####)	7137401710
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	7137401600

Technical Contact

Person TCEQ should contact for questions about this application:

Select existing TC contact or enter a new contact.

Organization Name

Prefix

First

Middle

Last

Suffix

Credentials

Title

Enter new address or copy one from list:

Mailing Address

Address Type

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

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

City

State

ZIP

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

Extension

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

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

E-mail

ALYSSA LINARES(KETJEN LIMITED ...)

KETJEN LIMITED LIABILITY COMPANY

MS

ALYSSA

LINARES

ENVIRONMENTAL PROFESSIONAL

Domestic

PO BOX 2500

PASADENA

TX

77501

7137401150

Alyssa.Linares@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	No

through permit consolidation?

5) Who will electronically sign this Title V application?

Responsible Official

6) 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)

[File Properties]

File Name

OP-2 2025 0912 v2.pdf

Hash

C37BFD334724FEC1C7223526811E7987860932DBC57C835D09167031DE2C8A3B

MIME-Type

application/pdf

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

[File Properties]

File Name

OP-REQ1 Page 30.pdf

Hash

428CC71BFE7A9559421055382ED8201EE1B906237CF68175F1089A449C2C5157

MIME-Type

application/pdf

Attach OP-REQ2 (Negative Applicable Requirement Determinations)

[File Properties]

File Name

OP-REQ2.pdf

Hash

47D4E1C937B7F24910338593AFE41A37D40EED4AEDFA3BE501FB86F066018A7B

MIME-Type

application/pdf

Attach OP-REQ3 (Applicable Requirements Summary)

Attach OP-PBRSUP (Permits by Rule Supplemental Table)

[File Properties]

File Name

OP-PBRSUP 2025 0912.pdf

Hash

6E778AE67E0DB58E46AAC1B3D0768DE0D4A1EDD7E6A7E6985709A0EF8943F95D

MIME-Type

application/pdf

Attach OP-SUMR (Individual Unit Summary for Revisions)

[File Properties]

File Name

OP-SUMR.pdf

Hash

298F7B29E7673428ED53D4527E9FB52F569E997ADBEBF0A80EF6D67971754872

MIME-Type

application/pdf

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	Coverletter 2025 0912.pdf
Hash	0D509284B972D4AFC419C73A27E0902B998AE424BED05BF9EA0C7E43162F720A
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
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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 1537.
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: 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:	074607C50A57533399526CBF6D4447AC1627245B3C22DE3053B3BCB1A1E54F05

Submission

Reference Number:	The application reference number is 817617
-------------------	--

Submitted by:

The application was submitted by
ER068673/Lisa Fruge

Submitted Timestamp:

The application was submitted on 2025-09-17
at 12:50:14 CDT

Submitted From:

The application was submitted from IP address
12.196.187.18

Confirmation Number:

The confirmation number is 678773

Steers Version:

The STEERS version is 6.92

Permit Number:

The permit number is 1537

Additional Information

Application Creator: This account was created by Alyssa Linares