

## Permit by Rule (PBR) Registration Technical Review

<b>Company:</b>	Ketjen Limited Liability Company	<b>Registration No.:</b>	179665
<b>Nearest City:</b>	Pasadena	<b>Project No.:</b>	390944
<b>County:</b>	Harris	<b>Project Type:</b>	Initial
<b>Project Reviewer:</b>	Dara Winsted	<b>Regulated Entity No.:</b>	RN100218247
<b>Unit Name:</b>	Ketjen Pasadena Plant	<b>Customer Reference No.:</b>	CN606211746
<b>PBR No(s).:</b>	106.261, 106.262	<b>Project Received Date:</b>	March 30, 2025
<b>Physical Location:</b>	2500 N South St		

### Project Overview / Process Description

Ketjen LLC is authorizing emission increases associated with new fugitive components under 106.261 and 106.262.

The new components are associated with a discharge line tie-in to the flare header and a new isolation valve. The company confirmed these changes are associated with a seal pot in the flare header system. Emissions from this vessel are authorized under NSR 2101. There are no changes to, or additions of abatement equipment associated with this project.

This project should be incorporated into NSR 2101 at the next amendment or renewal.

### Permit by Rule Requirements - 30 TAC Chapter 106

#### General Requirements

Registration Fee Reference No.:	Application fee: 759924 / 582EA000661596
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Is this registration certified?	<b>Yes</b>
Is planned MSS included in the registration?	<b>No</b>
Are there affected NSR or Title V authorizations for the project?	<b>Yes</b>
<i>NSR and/or Title V authorizations:</i>	<b>NSR 2101, O2310</b>
If there are affected Title V authorizations, is monitoring being submitted as part of this registration?	<b>No</b>
Are there any upstream or downstream affects associated with this registration?	<b>No</b>
Are associated upstream/downstream emissions either included in the registration OR within current permitted limits with no changes to underlying air authorizations for the applicable units regarding BACT, health and environmental impacts, or other representations.	<b>NA</b>
Are emissions for each PBR authorized facility less than the § 106.4(a)(1) limits?	<b>Yes</b>
Are total emissions from all sitewide PBR authorized facilities less than the § 106.4(a)(4) limits, OR has the site been subject to public notice requirements?	<b>Yes, site has been to public notice.</b>
Are there permit limits on using PBRs at the site?	<b>No</b>
Is the facility subject to the NO <sub>x</sub> Mass Cap and Trade Program?	<b>Yes*</b>
Is the facility in compliance with all other applicable rules and regulations?	<b>Yes</b>
Does the registration include an appropriate PBR workbook, and has the workbook been verified?	<b>Yes</b>
Notes: *Company will obtain required allowances for NO <sub>x</sub> .	

#### Federal Applicability

Does this project trigger a PSD or Nonattainment review?	<b>No</b>
Does the Major NSR applicability analysis include all associated upstream and/or downstream emissions?	<b>NA</b>
Are there any applicable standards under NSPS, NESHAP, or NESHAP for source categories (MACT)?	<b>No</b>

### Permit by Rule Requirements - Compliance Demonstrations

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## PBR 106.261/262 Facilities (Emission Limitations / Emission and Distance Limitations)

- The emission point(s) associated with the facilities or changes to facilities are located **at least 100 ft (actual 2,106 ft)** from the nearest off-site receptor.
- The total new or increase emissions will comply with the applicable hourly and annual emission limits as represented in the table below.
- N/A, facility does not handle chemicals included in §106.262(a)(4).
- There are no changes to or addition of any pollution abatement equipment.
- Visible emissions to the atmosphere, from any point or fugitive source, do not exceed 5.0 percent opacity in any six-minute period.
- This registration does not authorize construction or changes to a facility authorized under another section of this chapter or under standard permit.

## Compliance History and Site Review

In accordance with 30 TAC Chapter 60, a compliance history report was reviewed on:

**April 4, 2025**

Site rating / classification: **0.45 / Satisfactory**

Company rating / classification: **1.78 / Satisfactory**

Has any action occurred on the basis of the compliance history or rating?

**No**

Did the Regional Office provide site approval and confirm distances?

**NA**

### 106.261(a)(2) Emissions

Chemical	Criteria Pollutant Designation	CAS No. (optional input)	Emission Threshold (lb/hr)	Emission Threshold (tpy)	Hourly Emissions (lb/hr)	Annual Emissions (tpy)	Meets Threshold?
Butane	VOC	106-97-8	6	10	2.60E-04	1.14E-03	Yes
Ethylene	VOC	74-85-1	6	10	4.33E-04	1.90E-03	Yes

### 106.261(a)(3) Emissions

Chemical	Criteria Pollutant Designation	L Value (mg/m <sup>3</sup> )	CAS No. (optional input)	Emission Threshold (lb/hr)	Emission Threshold (tpy)	Hourly Emissions (lb/hr)	Annual Emissions (tpy)	Meets Threshold ?
Butene	VOC	--	106-98-9	1	4.38	6.49E-05	2.84E-04	Yes
Isobutane	VOC	--	75-28-5	1	4.38	1.34E-04	5.88E-04	Yes
Isobutylene	VOC	--	115-11-7	1	4.38	1.86E-04	8.15E-04	Yes
Octane	VOC	350	111-65-9	1	4.38	2.38E-04	1.04E-03	Yes

### 106.262(a)(2) Distance

Distance to nearest off-plant receptor (feet):	2106
K value:	13.364

### 106.262(a)(2) Emissions – 1997 ACGIH Guide

Chemical	Criteria Pollutant Designation	CAS No. (optional input)	L Value (mg/m <sup>3</sup> )	E, maximum Hourly Emission Threshold (lb/hr)	Actual Emission Threshold (tpy)	Actual Hourly Increases (lb/hr)	Actual Annual Increase (tpy)	Meets Threshold?
Hexane (n-Hexane)	VOC	110-54-3	176	6.00E+00	5.00E+00	1.39E-03	6.10E-03	Yes

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## Total 106.261/262 Combined Emissions

	Total Hourly Emissions (lb/hr)	Total Annual Emissions (tpy)
<b>Total VOC Emissions:</b>	<0.01	0.01

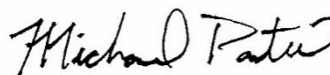
## Emission Summary

EPN / Emission Source	VOC		NOx		CO		PM <sub>10</sub>		PM <sub>2.5</sub>		SO <sub>2</sub>		Other	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
C-GZ-0 / Area C Fugitives	<0.01	0.01												
<b>TOTAL EMISSIONS (TPY):</b>		<b>0.01</b>												
<b>MAXIMUM OPERATING SCHEDULE:</b>			<b>Hours/Day</b>		<b>Days/Week</b>		<b>Weeks/Year</b>		<b>Hours/Year</b>		8,760			



04/10/2025

Dara Winsted  
Permit Reviewer  
Rule Registration Section



04/10/2025

Michael Partee  
Rule Registrations Section  
Air Permits Division  
Section Manager