Permit by Rule (PBR) Registration
Technical Review

Company:	Kuraray America, Inc.	**Registration No.:**	177457
Nearest City:	La Porte	**Project No.:**	379448
County:	Harris	**Project Type:**	Initial
Project Reviewer:	Guillermo Reyes, P.E.	**Regulated Entity No.:**	RN107305922
Unit Name:	Kuraray La Porte	**Customer Reference No.:**	CN603315953
PBR No(s).:	106.261, 106.262, 106.478	**Project Received Date:**	September 6, 2024
Physical Location:	12342 Strang Rd		

Project Overview / Process Description

Kuraray America, Inc. (Kuraray) owns and operates the Vinyl Acetate Unit at the Kuraray La Porte Plant. The Vinyl Acetate Unit operates under NSR Permit No. 4445.

Kuraray submitted a PBR application to authorize a new tank that is being permitted to store three different chemical services. Construction of the storage tank is authorized by PBR 106.478.

Kuraray will construct a new mixed service fixed roof tank as a replacement for VS-207T, which is authorized under NSR 4445. The tank will store vinyl acetate, acetic acid, and mixed impurities. The tank will be controlled with the same control device as VS-207T (EPN VS-260), a thermal oxidizer with a control efficiency of 99.9% and a back-up control device, a scrubber (EPN VS-206). Emissions from the thermal oxidizer/scrubber are being authorized under PBRs 106.261 and 106.262. There are no new fugitive components associated with this project.

Kuraray represents that there no downstream effects besides the thermal oxidizer/scrubber associated with this project. There is no loading from the tank; the products stored in the tank go into Vinyl Acetate manufacturing process and the there is no increase in the throughput of the products stored in the tank.

There will be no increase in production above current permitted or actual rates in the unit, and there will be no affected changes of any upstream or downstream sources. This project will not result in the increase of flow rates in any equipment associated with the plant.

This PBR will be incorporated into NSR Permit No. 4445 at the next renewal/amendment.

There is a pending amendment project (project No. 368254) for NSR Permit No. 4445. Permit reviewer has no issues with the issuance of this PBR.

Permit by Rule Requirements - 30 TAC Chapter 106

General Requirements	
Registration Fee Reference No.:	**Application fee: 720258 / 582EA000624423**
Is this registration certified?	**Yes**
Is planned MSS included in the registration?	**No**
Are there affected NSR or Title V authorizations for the project?	**Yes**
NSR and/or Title V authorizations:	**NSR Permit No. 4445/ Title V Permit No. O1911**
If there are affected Title V authorizations, is monitoring being submitted as part of this registration?	**Yes**
Are there any upstream or downstream affects associated with this registration? **Emissions from the thermal oxidizer/scrubber are being authorized by this project.**	**Yes**
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.	**NA**
Are emissions for each PBR authorized facility less than the § 106.4(a)(1) limits?	**Yes**
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? **Site has undergone Public Notice for NSR Permit No. 4445.**	**Yes**

Permit by Rule (PBR) Registration

Are there permit limits on using PBRs at the site?	**No**
Is the facility subject to the NO_X Mass Cap and Trade Program? **Thermal oxidizers are not subject to the NO_X Mass Cap and Trade Program.**	**No**
Is the facility in compliance with all other applicable rules and regulations?	**Yes**
Does the registration include an appropriate PBR workbook, and has the workbook been verified?	**Yes**

Federal Applicability	
Does this project trigger a PSD or Nonattainment review?	**No**
Does the Major NSR applicability analysis include all associated upstream and/or downstream emissions?	**NA**
Are there any applicable standards under NSPS, NESHAP, or NESHAP for source categories (MACT)?	**Yes**
If Yes, list applicable subparts:	**MACT G**

Permit by Rule Requirements - Compliance Demonstrations

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 1325 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.
- 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.

PBR 106.478 Storage Tank and Change of Service

Any fixed or floating roof storage tank, or change of service in any tank, used to store chemicals or mixtures of chemicals shown in Table 478 in paragraph (8) of this section is permitted by rule, provided that all of the following conditions of this section are met:

(1) The tank shall be located at least 500 feet away from any recreational area or residence or other structure not occupied or used solely by the owner of the facility or the owner of the property upon which the facility is located.

(2) The true vapor pressure of the compound to be stored shall be less than 11.0 psia at the maximum storage temperature.

(3) For those compounds that have a true vapor pressure greater than 0.5 psia and less than 11.0 psia at the maximum storage temperature, any storage vessel larger than 40,000 gallons capacity shall be equipped with an internal floating cover or equivalent control.

(5) For fixed or cone roof tanks having no internal floating cover, all uninsulated tank exterior surfaces exposed to the sun shall be painted chalk white except where a dark color is necessary to help the tank absorb or retain heat in order to maintain the material in the tank in a liquid state.

(6) Emissions shall be calculated by methods specified in Section 4.3 of the current edition of the United States Environmental Protection Agency Publication AP-42. This document may be obtained from the Superintendent of Documents, Washington D.C. 20402. It is Stock Number 0550000251-7, Volume I.

(7) Before construction begins, storage tanks of 25,000 gallons or greater capacity and located in a designated nonattainment area for ozone shall be registered with the commission's Office of Permitting, Remediation, and Registration in Austin using Form PI-7. The registration shall include a list of all tanks, calculated emissions for each carbon compound in tons per year for each tank, and a Table 7 of Form PI-2 for each different tank design.

(8) Mixtures of the chemicals listed in Table 478 which contain more than a total of 1.0% by volume of all other chemicals not listed in Table 478 are not covered by this section.

Table 478

Approved Chemical List for Exemption from Permitting

A. Compounds of the following classes containing only atoms of carbon and hydrogen, not including aromatic compounds:

Paraffins. Examples: hexane, pentane, octane, isooctane.

Cycloparaffins (except cyclopentane). Examples: cyclohexane, methyl cyclopentane.

Olefins (except butadiene). Examples: octene, isoprene.

Cycloolefins. Examples: cyclopentadiene, cyclohexene.

B. Aromatic hydrocarbons only as follows: Ethyl benzene, styrene, xylenes.

C. Compounds of the following classes containing only atoms of carbon, hydrogen, and oxygen:

Alcohols (except allyl alcohol, isobutyl alcohol, and propargyl alcohol). Examples of approved alcohols: butyl alcohol, ethylene glycol.

Ethers (except vinyl ethers, glycol ethers, epoxides, and other ringed oxide compounds such as ketenes, furans, and pyrans). Examples of approved ethers: butyl ether, isopropyl ether.

Esters (except acrylates, methacrylates, allyl acetate, vinyl acetate, isopropyl formate). Examples of approved esters: ethyl acetate, butyl formate, methyl propionate.

Ketones (except allyl acetone, methyl ethyl ketone, methyl normal butyl ketone, acetophenone, and vinyl ketones). Examples of approved ketones: acetone, hexanone.

E. Non-approved chemicals:

Other chemicals not specifically included within the classes defined above are not approved. Examples of non-approved chemicals: aromatics (other than those listed or those found in the crude oil and refinery liquids as listed); aldehydes; amines; amides; imines; nitriles; halogenated compounds; sulfonated chemicals; cyanates; organic acids; ethylene oxide (EtO), propylene oxide, and other oxygenated compounds not listed; organometallic compounds; pesticides.

Compliance History and Site Review

In accordance with 30 TAC Chapter 60, a compliance history report was reviewed on:			**September 17, 2024**
Site rating / classification:	**9.07 / Satisfactory**	Company rating / classification:	**8.15 / 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?
Oxides of Nitrogen	Other		6	10	3.00E-02	2.00E-02	Yes
Carbon Monoxide	Other		6	10	3.00E-02	2.00E-02	Yes

106.262(a)(2) Distance

Distance to nearest off-plant receptor (feet):	1325
K value:	27.5

106.262(a)(2) Emissions – Table 262

Chemical	Criteria Pollutant Designation	CAS No. (optional input)	L Value (mg/m^3)	E, maximum Hourly Emission Threshold (lb/hr)	Actual Emission Threshold (tpy)	Actual Hourly Increases (lb/hr)	Actual Annual Increase (tpy)	Meets Threshold?
Vinyl Acetate	VOC		15	5.45E-01	2.39	2.10E-01	1.40E-01	Yes
Acetaldehyde	VOC		9	3.27E-01	1.43	1.40E-01	7.00E-02	Yes

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

Chemical	Criteria Pollutant Designation	CAS No. (optional input)	L Value (mg/m^3)	E, maximum Hourly Emission Threshold (lb/hr)	Actual Emission Threshold (tpy)	Actual Hourly Increases (lb/hr)	Actual Annual Increase (tpy)	Meets Threshold?
Acetic acid	VOC	64-19-7	25	9.09E-01	3.98	2.00E-02	1.00E-02	Yes
Methyl acetate	Other	79-20-9	606	6.00	5.00	0.03	0.02	Yes

Total 106.261/262 Combined Emissions

	Total Hourly Emissions (lb/hr)	Total Annual Emissions (tpy)
Total VOC Emissions:	3.70E-01	2.20E-01
Total CO Emissions:	3.00E-02	2.00E-02
Total NOx Emissions:	3.00E-02	2.00E-02
Total Methyl Acetate Emissions:	3.00E-02	2.00E-02

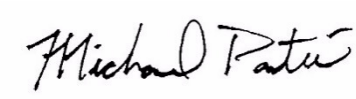
Emission Summary

EPN / Emission Source	VOC		NOx		CO		PM_{10}		$PM_{2.5}$		SO_2		Methyl Acetate	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
VS-260 / Thermal Oxidizer / VS-207T2	0.04	0.02	0.03	0.02	0.03	0.02							<0.01	<0.01
VS-206 / Super Scrubber / VS-207T2	0.37	0.22											0.03	0.02
TOTAL EMISSIONS (TPY):		**0.22**		**0.02**		**0.02**								**0.02**

MAXIMUM OPERATING SCHEDULE:	**Hours/Day**		**Days/Week**		**Weeks/Year**		**Hours/Year**	8,760

The thermal oxidizer and the scrubber will not be used at the same time.

September 19, 2024
Mr. Guillermo Reyes, P.E. Date
Permit Reviewer
Rule Registration Section



September 26, 2024
Michael Partee, Manager Date
Rule Registrations Section
Air Permits Division