

## Permit by Rule (PBR) Registration Technical Review

<b>Company:</b>	BASF Corporation	<b>Registration No.:</b>	177564
<b>Nearest City:</b>	Freeport	<b>Project No.:</b>	379915
<b>County:</b>	Brazoria	<b>Project Type:</b>	Initial
<b>Project Reviewer:</b>	Sarah Kyser	<b>Regulated Entity No.:</b>	RN100218049
<b>Unit Name:</b>	BASF Freeport Site	<b>Customer Reference No.:</b>	CN600124895
<b>PBR No(s).:</b>	106.261, 106.478	<b>Project Received Date:</b>	September 17, 2024
<b>Physical Location:</b>	602 Copper Rd		

### Project Overview / Process Description

BASF Corporation (BASF) owns and operates the BASF Freeport Site located near Freeport, Brazoria County. This site is authorized under various PBRs and Standard Permits and specifically NSR Permit No. 149547 and Title V Permit O1925.

With this project, BASF proposes to authorize the construction of a tote under 106.478 and the handling of chemicals under 106.261. BASF will continue to use the existing biocide. Only one biocide will be stored on site at a time. The Dispersion Unit manufactures water-based dispersions (latexes) in a semi-batch emulsion polymerization process. Raw materials are prepared and are fed into a reaction system to produce the dispersions. The finished products are stored for loading activities and various waste materials are sent to be processed or incinerated. There will be no increase in production above current permitted or actual rates in the dispersion unit. Changes of any upstream or downstream sources will be authorized under and meet all the conditions of NSR 149547 SC 14 chemical flexibility and stay below NSR permitted rates. This project will not result in the increase of flow rates in any equipment or allowable emission rates associated with the Dispersions Unit.

This PBR should be incorporated into the next amendment or renewal of the NSR Permit No. 149547.

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

#### General Requirements

Registration Fee Reference No.:	<b>Application fee: 721603 / 582EA000625704</b>
Is this registration certified?	<b>Yes</b>
Is this an APWL site?	<b>Yes, but no pollutants of concern</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 149547, Title V O1925</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 PN for NSR 149547</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>No NOx emissions with this project</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>

#### 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>

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## Permit by Rule Requirements - Compliance Demonstrations

### PBR 106.261 Facilities (Emission Limitations)

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- (a)(1) The facilities or changes will be located **875 ft** from any off-site receptor.
  - (a)(2) **N/A**, no 106.261(a)(2) chemicals are associated with this project.
  - (a)(3) Total new or increased emissions authorized by this section are below 1.0 lb/hr
  - (a)(4) There will not be any changes or additions of any existing abatement equipment.
  - (a)(5) Visible emissions will not exceed the 5.0 % opacity limit.
  - (a)(6)-(7) Notification and all required documentation have been submitted.
  - (b) This registration is not for authorization for construction or to change a facility authorized under another section of this chapter or under standard permit.
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### PBR 106.478 Storage Tank and Change of Service

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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 **875 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.
- (3)(A) An open top tank containing an external floating roof using double seal technology shall be an approved control alternative equivalent to an internal floating cover tank, provided the primary seal consists of either a mechanical shoe seal or a liquid-mounted seal. Double seals having a vapor-mounted primary seal are an approved alternative for existing open top floating roof tanks undergoing a change of service.
- (3)(B) The floating cover or floating roof design shall incorporate sufficient flotation to conform to the requirements of American Petroleum Institute Code 650, Appendix C or an equivalent degree of flotation.
- (4) Compounds with a true vapor pressure of 0.5 psia or less at the maximum storage temperature may be stored in a fixed roof or cone roof tank which includes a submerged fill pipe or utilizes bottom loading.
- (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

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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.

D. Additional chemicals:

Crude oil and refinery petroleum fractions (except pyrolysis naphthas and pyrolysis gasolines) containing less than 10% benzene. Examples of approved petroleum fractions: intermediate and finished gasolines, naphthas, alkylates, fluid catalytic cracking unit feed, fuel oils, distillates, other liquid fuels, and condensates.

Natural gas and crude oil condensates that do not emit sour gas.

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 19, 2024**

Site rating / classification: **4.45 / Satisfactory** Company rating / classification: **2.18 / Satisfactory**

Has any action occurred on the basis of the compliance history or rating? **No**

### 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 ?
2-Octyl-2H-isothiazol-3-one	VOC		26530-20-1	1	4.38	1.00E-04	1.00E-04	Yes
5-chloro-2-methyl-4-isothiazolin-3-one	VOC		55965-84-9	1	4.38	9.30E-08	3.17E-08	Yes
2-methyl-4-isothiazolin-3-one	VOC		2682-20-4	1	4.38	1.63E-07	6.04E-08	Yes

### Total 106.261 Combined Emissions

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

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### Emission Summary

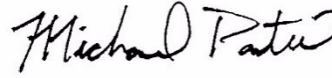
EPN / Emission Source	VOC		NOx		CO		PM <sub>10</sub>		PM <sub>2.5</sub>		SO <sub>2</sub>	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
3-4-2361 / Biocide Tote	<0.01	<0.01	--	--	--	--	--	--	--	--	--	--
<b>TOTAL EMISSIONS (TPY):</b>		<b>&lt;0.01</b>		--		--		--		--		--
<b>MAXIMUM OPERATING SCHEDULE:</b>									<b>Hours/Year</b>		8,760	



10/14/2024

Ms. Sarah Kyser  
Permit Reviewer  
Rule Registration Section

Date



10/15/2024

Michael Partee, Manager  
Rule Registrations Section  
Air Permits Division  
Section Manager

Date