Permit by Rule (PBR) Registration Technical Review

Company:	EPCOR Services Inc.	Registration No.:	169935
Nearest City:	Taylor	Project No.:	390097
County:	Williamson	Project Type:	Revision
Project Reviewer:	Sarah Kyser	Regulated Entity No.:	RN111471306
Unit Name:	Blue Sky Water Reclamation Facility	Customer Reference No.:	CN605720705
PBR No(s).:	Revised: 106.261 Unchanging: 106.144, 106.183, 106.511, 106.371, 106.532, 106.263	Project Received Date:	March 12, 2025
Physical Location:	751 County Road 401		

Project Overview / Process Description

EPCOR Services Inc. owns and operates the Blue Sky Water Reclamation Facility located near Taylor, Williamson County. This site is only authorized under this PBR.

With this project, EPCOR Services Inc. proposes to authorize emissions associated with the addition of a new ZLD system. The ZLD system comprises a brine plant treats the reject stream from Reserve Osmosis by concentrating the reject and encapsulating the salts. The brine plant requires an evaporator/crystallizer to remove water and encapsulate the solutes in the reject stream. No other sources are changing with this project.

Pretreatment includes individual wastewater streams that are treated based on specific contaminants with concentrations in excess of NPDES discharge permit limits or adversely affect the operation of the treatment plant.

In the final treatment area, all the pretreated wastewater streams are combined and treated using reverse osmosis technology to remove the remaining dissolved contaminants and blend the treated effluent with lime-softened reverse osmosis reject from the ultrapure wastewater plant for recycle.

The solids handling area includes storage, pretreatment, and dewatering of all waste streams generated by the pretreatment and final treatment areas. In the sludge handling part of this area, clarifier underflow is stored, conditioned/thickened, and then dewatered by screw conveyor, belt press, or filter press. In the brine plant, the reverse osmosis reject is converted to salt crystals using evaporator/crystallizer equipment.

Most air related emission sources are related to natural gas combustion. These include startup auxiliary boilers, water heaters, space heaters, natural gas combustion associated with the ammonia stripper and emergency generators. Other air emission sources are various treatment plant tanks, a cooling tower, silos, and general wastewater treatment processes. There is also a brine plant; however, it is fully enclosed and will not emit any air containments. Also, hydrogen sulfide emissions are not expected to be released throughout the process but have a small possibility to be released through the odor control system via the biosludge. It will be controlled by a biotrickling filter. Additionally, the concentration will be continuously monitored at the biofilter. Should there be a release, an alarm will be sent to the operator whereby the process will be evaluated and remedied immediately.

Permit by Rule Requirements - 30 TAC Chapter 106

General	Requi	rements	
General	Reyui	rements	

Registration Fee Reference No.:	Application fee: 757173 / 582EA000659015				
Is this registration certified?	No				
Is planned MSS included in the registration?	Yes				
Are there affected NSR or Title V authorizations for the project?	No				
Are there any upstream or downstream affects associated with this registration?	No				
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.					
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 Yes, less than the limits				

Registration	No.	169935
Page 2		

has the site been subject to public notice requirements?	
Are there permit limits on using PBRs at the site?	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: NSPS Dc, JJJJ;	MACT ZZZZ

Permit by Rule Requirements - Compliance Demonstrations

PBR 106.144 Bulk Mineral Handling

All bulk mineral product (except asbestos) handling facilities that operate in compliance with the following conditions of this section are permitted by rule.

(1) All material shall be transported in a closed conveying system and all exhaust air to the atmosphere shall be vented through a fabric filter having a maximum filtering velocity of **4.0 feet per minute (ft/min) with mechanical cleaning**.

(2) All permanent in-plant roads and vehicle work areas shall be **watered**, **treated** with **dust-suppressant** chemicals, oiled, or paved and cleaned as necessary to achieve maximum control of dust emissions.

(3) The facility (including associated stationary equipment and stockpiles) shall be located at least 300 feet from any recreational area, school, residence, or other structure not occupied or used solely by the owner of the property upon which the facility is located. (Actual distance: 313 ft)

(4) Before construction begins, written site approval must be received from the executive director and the facility shall be registered with the commission's Office of Permitting, Remediation, and Registration in Austin using Form PI-7.

EPN: Silos

PBR 106.183 Boilers, Heaters, And Other Combustion Devices

Boilers, heaters, drying or curing ovens, furnaces, or other combustion units, but not including stationary internal combustion engines or turbines are permitted by rule, provided that the following conditions are met.

(1) The only emissions shall be products of combustion of the fuel.

(2) The maximum heat input shall be 40 million British thermal unit (Btu) per hour with the fuel being:

(2)(A) sweet natural gas;

(3) **N/A** Distillate fuel oil will not be used as backup.

(4) All gas fired heaters and boilers with a heat input greater than ten million Btu per hour (higher heating value) shall be designed such that the emissions of nitrogen oxides shall not exceed 0.1 pounds per million Btu heat input.

(5) Records of hours of fuel oil firing and fuel oil purchases shall be maintained on-site on a two-year rolling retention period and made available upon request to the commission or any local air pollution control agency having jurisdiction.

EPNs: Auxiliary Boiler, Startup Boiler, Water Heaters, Spare Auxiliary Boiler, Space Heaters

PBR 106.261 Facilities (Emission Limitations)

(a)(1) The facilities or changes will be located **313 ft** from any off-site receptor.

(a)(2) Total new or increased emissions authorized by this section are below 6.0 pounds per hour (lb/hr) and ten tons per year.

(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

Registration No. 169935 Page 3 Project No. 390097

chapter or under standard permit.

EPNs: Degasser, ZLD System

PBR 106.263 Routine Maintenance, Start-Up and Shutdown of Facilities, And Temporary Maintenance Facilities

(a) This section authorizes routine maintenance, start-up and shutdown of facilities, and specific temporary maintenance facilities except as specified in subsection (b) of this section.

(b) The following are not authorized under this section:

(b)(1) construction of any new or modified permanent facility;

(b)(2) reconstruction under 40 Code of Federal Regulations, Part 60, New Source Performance Standards, Subpart A, §60.15 (relating to Reconstruction);

(b)(3) physical or operational changes to a facility which increase capacity or production beyond previously existing performance levels or results in the emission of a new air contaminant;

(b)(4) facilities and sources that are de minimis as allowed in §116.119 of this title (relating to De Minimis Facilities or Sources);

(b)(5) piping fugitive emissions authorized under a permit or another permit by rule; and

(b)(6) any emissions associated with operations claimed under the following sections of this chapter:

(b)(6)(A) §106.231 of this title (relating to Manufacturing, Refinishing, and Restoring Wood Products);

(b)(6)(B) §106.351 of this title (relating to Salt Water Disposal (Petroleum));

(b)(6)(C) §106.352 of this title (relating to Oil and Gas Production Facilities);

(b)(6)(D) §106.353 of this title (relating to Temporary Oil and Gas Facilities);

(b)(6)(E) §106.355 of this title (relating to Pipeline Metering, Purging, and Maintenance);

(b)(6)(F) §106.392 of this title (relating to Thermoset Resin Facilities);

(b)(6)(G) §106.418 of this title (relating to Printing Presses);

(b)(6)(H) §106.433 of this title (relating to Surface Coat Facility);

(b)(6)(I) §106.435 of this title (relating to Classic or Antique Automobile Restoration Facility);

(b)(6)(J) §106.436 of this title (relating to Auto Body Refinishing Facility); and

(b)(6)(K) §106.512 of this title (relating to Stationary Engines and Turbines).

(c) The following activities and facilities are authorized under this section:

(c)(1) routine maintenance activities which are those that are planned and predictable and ensure the continuous normal operation of a facility or control device or return a facility or control device to normal operating conditions;

(c)(2) routine start-ups and shutdowns which are those that are planned and predictable; and

(c)(3) temporary maintenance facilities which are constructed in conjunction with maintenance activities. Temporary maintenance facilities include only the following:

(c)(3)(A) facilities used for abrasive blasting, surface preparation, and surface coating on immovable fixed structures;

(c)(3)(B) facilities used for testing and repair of engines and turbines;

(c)(3)(C) compressors, pumps, or engines and associated pipes, valves, flanges, and connections, not operating as a replacement for an existing authorized unit;

(c)(3)(D) flares, vapor combustors, catalytic oxidizers, thermal oxidizers, carbon adsorption units, and other control devices used to control vent gases released during the degassing of immovable, fixed process vessels, storage vessels, and associated piping to atmospheric pressure, plus cleaning apparatus that will have or cause emissions;

(c)(3)(E) temporary piping required to bypass a unit or pipeline section undergoing maintenance; and

(c)(3)(F) liquid or gas-fired vaporizers used for the purpose of vaporizing inert gas.

(d) Emissions from routine maintenance (excluding temporary maintenance facilities), start-up, and shutdown are:

(d)(1) limited to 24-hour emission totals which are less than the reportable quantities defined in §101.1(82) of this title (relating to Definitions) for individual occurrences;

(d)(2) required to be authorized under Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification) or comply with §101.7 and §101.11 of this title (relating to Maintenance, Start-up and Shutdown Reporting, Recordkeeping, and Operational Requirements, and Demonstrations) if unable to comply with paragraph (1) of this subsection or subsection (f) of this section; and

(d)(3) required to comply with subsection (f) of this section.

(e) In addition to the emission limits in subsection (f) of this section, specific temporary maintenance facilities as listed in subsection (c)(3) of this section must meet the following additional requirements:

Registration No. 169935 Page 4

(e)(1) flares or vapor combustors must meet the requirements of §106.492(1) and (2)(C) of this title (relating to Flares);

(e)(2) catalytic oxidizers must meet the requirements of §106.533(5)(C) of this title (relating to Water and Soil Remediation); (e)(3) thermal oxidizers must meet the requirements of §106.493(2) and (3) of this title (relating to Direct Flame Incinerators);

(e)(4) carbon adsorption systems must meet the requirements of \$106.533(5)(D) of this title:

(e)(5) other control devices used to control vents caused by the degassing of process vessels, storage vessels, and associated piping must have an overall vapor collection and destruction or removal efficiency of at least 90%;

(e)(6) any temporary maintenance facility that cannot meet all applicable limitations of this section must obtain authorization under Chapter 116 of this title; and

(e)(7) temporary maintenance facilities may not operate at a given location for longer than 180 consecutive days or the completion of a single project unless the facility is registered. If a single project requires more than 180 consecutive days to complete, the facilities must be registered using a PI-7 Form, along with documentation on the project. Registration and supporting documentation shall be submitted upon determining the length of the project will exceed 180 days, but no later than 180 days after the project begins.

(f) All emissions covered by this section are limited to, collectively and cumulatively, less than any applicable emission limit under §106.4(a)(1) - (3) of this title (relating to Requirements for Permitting by Rule) in any rolling 12-month period.
(g) Facility owners or operators must retain records containing sufficient information to demonstrate compliance with this section and must include information listed in paragraphs (1) - (4) of this subsection. Documentation must be separate and distinct from records maintained for any other air authorization. Records must identify the following for all maintenance, start-up, or shutdown activities and temporary maintenance facilities:

(g)(1) the type and reason for the activity or facility construction;

(g)(2) the processes and equipment involved;

(g)(3) the date, time, and duration of the activity or facility operation; and

(g)(4) the air contaminants and amounts which are emitted as a result of the activity or facility operation.

EPN: Emergency Generators

PBR 106.371 Cooling Water Units

Water cooling towers, water treating systems for process cooling water or boiler feedwater, and water tanks, reservoirs, or other water containers designed to cool, store, or otherwise handle water (including rainwater) that have not been used in direct contact with gaseous or liquid process streams containing carbon compounds, sulfur compounds, halogens or halogen compounds, cyanide compounds, inorganic acids, or acid gases are permitted by rule.

EPN: Cooling Tower

PBR 106.511 Portable and Emergency Engines and Turbines

Internal combustion engine and gas turbine driven compressors, electric generator sets, and water pumps, used only for portable, emergency, and/or standby services are permitted by rule, provided that the maximum annual operating hours shall not exceed 10% of the normal annual operating schedule of the primary equipment; and all electric motors. For purposes of this section, "standby" means to be used as a "substitute for" and not "in addition to" other equipment.

EPN: Emergency Generators

PBR 106.532 Water and Wastewater Treatment

Water and wastewater treatment units are permitted by rule, provided the following conditions of this section are met.

- (1) The facility performs only the following functions:
- (1)(A) disinfection;
- (1)(B) softening;
- (1)(C) filtration;
- (1)(D) flocculation;
- (1)(E) stabilization;
- (1)(F) taste and odor control;
- (1)(G) clarification;
- (1)(H) carbonation;

Registration	No.	169935
Page 5		

Project No. 390097

(1)(I) sedimentation;

(1)(J) neutralization;

(1)(K) chlorine removal;

(1)(L) activated sludge treatment, anaerobic treatment, and associated control of gases from these treatments;

(1)(M) aerobic oxidation/biodegration using oxygen or peroxide in the absence of nitrogen or other gas that would cause stripping of volaltile organic compounds (VOC) from the water;

(1)(N) stripping VOC, ammonia, or other air contaminants from the water with air or other gas, provided the stripped gases are controlled with an abatement system that meets the requirements of §106.533(5) of this title (relating to Water and Soil Remediation). For ammonia or hydrogen chloride (HCI) or other acid gas emissions, abatement may include a water or caustic scrubbing system as a means of complying with this section. Final emissions of HCI resulting from combustion of chlorine or chlorine-containing compounds shall not exceed 0.1 pounds per hour;

(1)(O) liquid phase separation of VOC and water in which:

(1)(O)(i) the sum of the partial pressures of all species of VOC in any sample is less than 1.5 psia; or

(1)(O)(ii) the separator is enclosed and emissions are vented through an emission abatement system meeting the requirements specified previously for stripped VOC and ammonia;

(2) Chlorine or sulfur dioxide (SO₂) shall be used only in containers approved by the United States Department of Transportation and emissions of chlorine or SO₂ from treatment of water or decontamination of equipment at any water treatment plant shall not exceed ten tons per year.

(3) The following shall not be permitted by rule under this section:

(3)(A) gas stripping or aeration facilities where VOC or other air contaminants are stripped from water directly to the atmosphere;

(3)(B) disposal facilities using land surface treatment;

(3)(C) surface facilities associated with injection wells;

(3)(D) cooling towers in which VOC or other air contaminants may be stripped to the atmosphere.

EPNs: Tanks, Ammonia Stripper, Wastewater Treatment Process

Compliance History and Site Review

In accordance with 30 TAC Chapter 60, a compliance history report wa	March 13, 2025	
Site rating / classification: Unclassified	Company rating / classification:	Unclassified
Has any action occurred on the basis of the compliance history or ratir	ıg?	No
Did the Regional Office provide site approval and confirm distances?	NA - no cł under 106.14	nanges to sources 4 with this project
Reviewed by: Sarah Kyser - Reviewer	Date:	March 13, 2025

106.261(a)(2) Emissions

Chemical	Criteria Pollutant	CAS No. (optional	Emission Threshold	Emission Threshold	Hourly Emissions	Annual Emissions	Meets Threshold?
	Designation	input)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	
Isopropyl Alcohol	VOC		6	10	8.43E-01	3.69E+00	Yes

Total 106.261 Combined Emissions

	Total Hourly Emissions (lb/hr)	Total Annual Emissions (tpy)
Total VOC Emissions:	0.84	3.69*

*Speciation includes sitewide VOC emissions

Emission Summary

EPN / Emission Source	VOC		NOx		СО		PM ₁₀		PM 2.5		SO ₂		Other*	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
New Emissions														
ZLD System	0.82	3.61												
Unchanging Emissions														

Registration No. 169935 Page 6

Project No. 390097

						МА	XIMUN		ATING	SCHE	DULE:	Hours	Year	8,760
TOTAL EMISSIONS (TPY):		6.96		23.91		18.25		4.34		4.28		0.40		25.12
Natural Gas for APC	0.01	0.06	0.24	1.03	1.98	8.66	0.18	0.78	0.18	0.78	0.01	0.06		
Ammonia Stripper	0.49	1.06	3.81	16.69									5.63	24.68
Silos							0.01	0.03	0.01	0.03				
Cooling Tower							0.02	0.10	0.01	0.04				
Wastewater Treatment Process														
Degasser Emissions	0.02	0.08												
Aerated Tanks	0.03	0.14												
Tanks (Non Aerated)	0.11	0.50											0.10	0.44
Emergency Generators (4)	11.20	0.92	16.00	1.31	31.99	2.62	0.73	0.06	0.73	0.06	0.04	< 0.01		
Space Heaters	0.03	0.07	0.62	1.36	0.52	1.14	0.05	0.10	0.05	0.10	< 0.01	0.01		
Water Heaters (3)	0.11	0.51	0.77	3.38	1.32	5.79	0.73	3.22	0.73	3.22	0.07	0.32		
Startup Boiler	0.04	< 0.01	0.43	0.05	0.09	0.01	0.12	0.01	0.12	0.01	0.01	< 0.01		
Spare Auxiliary Boiler	< 0.01	< 0.01	0.02	< 0.01	0.01	< 0.01	0.01	< 0.01	0.01	< 0.01	< 0.01	< 0.01		
Auxiliary Boiler	< 0.01	0.01	0.02	0.09	< 0.01	0.03	0.01	0.04	0.01	0.04	<0.01	< 0.01		

*Other emissions include hydrogen sulfide (H_2S) for the treatment tanks and processes, and ammonia (NH_3) for the ammonia stripper.

Sml

03/13/2025

Ms. Sarah Kyser Permit Reviewer **Rule Registration Section**

Date

Micha Patu

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

03/14/2025

Date